ATTACHMENT 2

INSTRUMENTATION

FIRE DETECTION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.7.9 As a minimum, the fire detection instrumentation for each fire detection zone shown in Table 3.3.7.9-1 shall be OPERABLE.

APPLICABILITY: Whenever equipment protected by the fire detection instrument is required to be OPERABLE.

ACTION:

With the number of OPERABLE fire detection instruments less than the Minimum Instruments OPERABLE requirement of Table 3.3.7.9-1:

a. Within 1 hour, establish a fire watch patrol to inspect the zone(s) with the inoperable instrument(s) at least once per hour, unless the instrument(s) is located inside an inaccessible zone, then inspect the area surrounding the inaccessible zone at least once per hour.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.9.1 Each of the above required fire detection instruments which are accessible during unit operation shall be demonstrated OPERABLE at least once per 6 months by performance of a CHANNEL FUNCTIONAL TEST. Fire detectors which are not accessible during unit operation shall be demonstrated OPERABLE by the performance of a CHANNEL FUNCTIONAL TEST during each COLD SHUTDOWN exceeding 24 hours unless performed in the previous 6 months.

4.3.7.9.2 The supervised circuits supervision associated with the detector alarms of each of the above required fire detection instruments shall be demonstrated OPERABLE at least once per 6 months.

TABLE 3.3.7.9-1

FIRE DETECTION INSTRUMENTATION

INSTRUMENT LOCATION			INSTRUMENTS OPERABLE					
			HEAT		IONIZATION		PHOTO-ELECTRIC	
FIRE ZONE	ROOM OR AREA	ELEV.	TOTAL	MIN.	TOTAL	MIN.	TOTAL	MIN.
a. Control Building								
0-24D	Lower Relay Room	698'-1"	4	2	4	2	NA	NA
0-24D	PGCC	698'-1"	54	27	30	15	NA	NA
0-25E	Lower Cable Spreading Rm.	714'-0"	26	13	6	3	NA	NA
0-25A	Lower Cable Spreading Rm.	714'-0"	20	10	6	3	NA	NA
0-26H	Control Rm. (Under Flr. Unit 1)*	729'-1"	NA	NA	18	9	NA	NA
0-26H	Control Room (Under Flr. Unit 2)*	729'-1"	NA	NA	15	8	NA	NA
0-26H	Control Room	729'-1"	NA	NA	10	5	NA	NA
0-26H	Control Rm. (Above Clg)*	729'-1"	NA	NA	9	5	NA	NA
0-27C	Upper Cable Spreading Rm.	753'-0"	29	15	8	4	NA	NA
0-27B	Upper Cable Spreading Rm.	753'-0"	28	14	5	3	NA	NA
0-27E	Upper Relay Room	754'-1"	4	2	2	1	NA	NA
0-27E	PGCC	754'-1"	55	28	30	15	NA	NA
0-28K	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28L	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28M	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28N	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28I	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28J	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28G	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28F	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28E	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28C	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28D	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28T	Battery Room	771'-0"	NA	NA	1	1	NA	NA

TABLE 3.3.7.9-1 (Continued)

FIRE DETECTION INSTRUMENTATION

INSTRUMENT LOCATION			INSTRUMENTS OPERABLE					
			HEAT		IONIZATION		PHOTO-ELECTRIC	
FIRE ZONE	ROOM OR AREA	ELEV.	TOTAL	MIN.	TOTAL	MIN.	TOTAL	MIN.
0-22A	Filter Area	687'-8"	NA	NA	11	6	NA	NA
0-26B	South Cable Chase	729'-1"	NA	NA	1	1	NA	NA
0-26C	Center Cable Chase	729'-1"	NA	NA	1	1	NA	NA
0-26D	North Cable Chase	729'-1"	NA	NA	1	1	NA	NA
0-26F	Vestibule	729'-1"	NA	NA	1	1	NA	NA
0-26G	Shift Office	729'-1"	NA	NA	1	1	NA	NA
0-26J	Vestibule	729'-1"	NA	NA	1	1	NA	NA
0-26M	Soffit	729'-1"	NA	NA	4	2	NA	NA
0-26N	Control Room Soffit	729'-1"	NA	NA	2	1	NA	NA
0-26P	Control Room Soffit	729'-1"	NA	NA	2	1	NA	NA
0-26R	Soffit	729'-1"	NA	NA	4	2	NA	NA
0-26S	South Cable Chase	729'-1"	1	1	NA	NA	NA	NA
0-26T	Center Cable Chase	729'-1"	1	1	NA	NA	NA	NA
0-26V	North Cable Chase	729'-1"	1	1	NA	NA	NA	NA
0-27F	South Cable Chase	754'-1"	1	1	NA	NA	NA	NA
0-27G	Center Cable Chase	754'-1"	1	1	NA	NA	NA	NA
0-27H	North Cable Chase	754'-1"	1	1	NA	NA	NA	NA
0-28A	Equipment Room	771'-0"	NA	NA	4	2	NA	NA
0-28B	Equipment Room	771'-0"	NA	NA	4	2	NA	NA
0-28H	Repair Shop	771'-0"	NA	NA	2	1	NA	NA
0-28P	South Cable Chase	771'-0"	1	1	NA	NA	NA	NA
0-28R	North Cable Chase	771'-0"	1	1	NA	NA	NA	NA
0-29B	H&V Equipment Room	783'-0"	NA	NA	10	5	NA	NA
0-30A	HVAC Equipment Room	806'-0"	NA	NA	20	10	NA	NA
0-25B	South Cable Chase	714'-0"	1	1	NA	NA	NA	NA
0-25C	Center Cable Chase	714'-0"	1	1	NA	NA	NA	NA
0-25D	North Cable Chase	714'-0"	1	1	NA	NA	NA	NA
0-28Q	Center Cable Chase	771'-0"	1	1	NA	NA	NA	NA
0-26I	Operational Support Center	729'-1"	NA	NA	1	1	NA	NA

TABLE 3.3.7.9-1 (Continued)

FIRE DETECTION INSTRUMENTATION

INSTRUMENT LOCATION			INSTRUMENTS OPERABLE						
			HEAT		IONIZATION		PHOTO-ELECTRIC		
FIRE ZONE	ROOM OR AREA	ELEV.	TOTAL	MIN.	TOTAL	MIN.	TOTAL	MIN.	
b. Reactor Building									
1-1B	Core Spray Pump Room	645'-0"	NA	NA	5	3	NA	NA	
1-1A	Core Spray Pump Room	645'-0"	NA	NA	7	4	NA	NA	
1-1E	RHR Pump Room	645'-0"	NA	NA	NA	NA	13	7	
1-1F	RHR Pump Room	645'-0"	NA	NA	NA	NA	15	8	
1-1D	RCIC Pump Room	645'-0"	2	1	NA	NA	5	3	
1-1C	HPCI Pump Room	645'-0"	2	1	NA	NA	7	4	
1-1G	Sump Room	645'-0"	NA	NA	2	1	NA	NA	
1-2B	Access Area	670'-0"	NA	NA	7	4	NA	NA	
1-5A	Fuel Pool Pumps and Heat Exchangers	749'-1"	NA	NA	22	11	7	4	
1-2D	Remote Shutdown Panel Rm.	670'-0"	NA	NA	2	1	NA	NA	17
1-4C	Switchgear Room	719'-0"	NA	NA	2	1	NA	NA	
1-4D	Switchgear Room	719'-0"	NA	NA	2	1	NA	NA	
1-4A	Containment Access Area	719'-0"	NA	NA	27	14	4	2	
1-5F	Load Center Room	749'-1"	NA	NA	2	1	NA	NA	
1-5G	Load Center Room	749'-1"	NA	NA	2	1	NA	NA	
1-2A	Access Area	670'-0"	NA	NA	7	4	NA	NA	
1-3A	Access Area	683'-0"	NA	NA	7	4	NA	NA	
1-3B	Access Area	683'-0"	NA	NA	12	6	NA	NA	
1-3C	Access Area	683'-0"	NA	NA	NA	NA	13	7	16
1-4B	Pipe Penetration Room	719'-1"	NA	NA	1	1	NA	NA	
1-4G	Main Steam Piping	719'-1"	NA	NA	NA	NA	6	3	
1-5B	Valve Access Area	761'-10"	NA	NA	NA	NA	2	1	
1-5D	RWCU Pumps & Heat Exchangers	749'-1"	NA	NA	NA	NA	12	6	
1-5E	Penetration Room	749'-1"	NA	NA	NA	NA	2	1	
1-6A	Access Area	779'-1"	NA	NA	9	5	NA	NA	
1-6I	Fuel Pooling Holding Pump Room	779'-1	NA	NA	NA	NA	2	1	

TABLE 3.3.7.9-1 (Continued)

FIRE DETECTION INSTRUMENTATION

INSTRUMENT LOCATION			INSTRUMENTS OPERABLE							
			HEAT		IONIZATION		PHOTO-ELECTRIC		INFRA-RED (FLAME)	
FIRE ZONE	ROOM OR AREA	ELEV.	TOTAL	MIN.	TOTAL	MIN.	TOTAL	MIN.	TOTAL	MIN.
Reactor Building (Continued)										
1-6D	H&V Equipment Room	779'-1"	NA	NA	12	6	NA	NA		
1-6E	Recirculation Fans Area	779'-1"	NA	NA	2	1	NA	NA		
0-6G	Surge Tank Vault	779'-4"	NA	NA	2	1	NA	NA		
1-7A	H&V Fan and Filter Rooms	799'-1"	24	12	15	8	NA	NA		
0-8A	Refueling Floor	818'-1"	NA	NA	NA	NA	59	30		
c. ESSW Pumphouse										
0-51	Pump Room	685'-6"	NA	NA	6	3	NA	NA		
0-52	Pump Room	685'-6"	NA	NA	6	3	NA	NA		
d. Diesel Generator Building										
0-41A	Diesel Generator Rooms and	660'-0" 677'-0"	22	11	2	1	15	8		
0-41C	Diesel Generator Rooms and	660'-0" 677'-0"	22	11	2	1	15	8		
0-41B	Diesel Generator Rooms and	660'-0" 677'-0"	23	12	2	1	15	8		
0-41D	Diesel Generator Rooms and	660'-0" 677'-0"	22	11	2	1	15	8		
e. Diesel Generator E Building							IONIZATION TOTAL	IONIZATION MIN		
0-41E	Diesel Generator Rooms and and	656'-6"	1	1	NA	NA	18	9		
		675'-6"	NA	NA	6	3	3	2		
		708'-0"	NA	NA	4	2	NA	NA		

*Not accessible.

SPRAY AND SPRINKLER SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.6.2 The following spray and sprinkler systems shall be OPERABLE:

a. RCIC Pump Room, Unit 1
b. HPCI Pump Room, Unit 1
c. Upper Cable Spreading Room, Unit 1
d. Lower Cable Spreading Room, Unit 1
e. Diesel Generator A Room
f. Diesel Generator B Room
g. Diesel Generator C Room
h. Diesel Generator D Room
i. Fire Zones 1-3A and 1-3B
j. Fire Zone 1-4A
k. Fire Zone 1-5A
l. Fire Zone 1-2B
m. Fire Zone 0-29B
n. Fire Zone 0-30A
o.

SEE INSERT A

APPLICABILITY: Whenever equipment protected by the spray and/or sprinkler systems is required to be OPERABLE.

ACTION:

a. With one or more of the above required spray and/or sprinkler systems inoperable, within 1 hour establish a continuous fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged; for other areas, establish an hourly fire watch patrol.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

INSERT A

o. Diesel Generator E Building, Fire Zone 0-41E

4.7.6.2 Each of the above required spray and sprinkler systems shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve, manual, power operated or automatic, in the flow path is in its correct position.

b. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.

c. At least once per 18 months:

1. By performing a system functional test which includes simulated automatic actuation of the system, and:

a) Verifying that the automatic valves in the flow path actuate to their correct positions on a test signal, and

b) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.

2. By a visual inspection of the dry pipe spray and sprinkler headers to verify their integrity, and

3. By a visual inspection of each deluge nozzle's spray area to verify that the spray pattern is not obstructed.

d. At least once per 3 years by performing an air or water flow test through each open head spray and sprinkler header and verifying each open head spray and sprinkler nozzle is unobstructed.

FIRE HOSE STATIONS

LIMITING CONDITION FOR OPERATION

3.7.6.5 The fire hose stations shown in Table 3.7.6.5-1 shall be OPERABLE.

APPLICABILITY: Whenever equipment in the areas protected by the fire hose stations is required to be OPERABLE.

ACTION:

a. With one or more of the fire hose stations shown in Table 3.7.6.5-1 inoperable, route an additional fire hose of equal or greater diameter to the unprotected area(s) from an OPERABLE hose station within 1 hour if the inoperable fire hose is the primary means of fire suppression; otherwise, route the additional hose within 24 hours. |26

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.6.5 Each of the fire hose stations shown in Table 3.7.6.5-1 shall be demonstrated OPERABLE:

a. At least once per 31 days by a visual inspection of the fire hose stations accessible during plant operation to assure all required equipment is at the station.

b. At least once per 18 months by:

1. Visual inspection of the fire hose stations not accessible during plant operation to assure all required equipment is at the station.

2. Removing the hose for inspection and re-racking for all fire hose stations, and |29

3. Inspecting all gaskets and replacing any degraded gaskets in the couplings for all fire hose stations. |29

c. At least once per 3 years by:

1. Partially opening each hose station valve to verify valve OPERABILITY and no flow blockage.

2. Conducting a hose hydrostatic test at a pressure of 150 psig or at least 50 psig above the maximum fire main operating pressure, whichever is greater.

TABLE 3.7.6.5-1

FIRE HOSE STATIONS

LOCATIONS	COLUMN	HOSE RACK NUMBER
a. Control Structure		
El. 697'-0"	L-26	1HR-171
El. 697'-0"	L-32	2HR-171
El. 714'-0"	L-26	1HR-162
El. 714'-0"	L-31	2HR-162
El. 729'-0"	L-25.9	1HR-158
El. 729'-0"	L-32.1	2HR-158
El. 754'-0"	L-26	1HR-136
El. 754'-0"	L-32	2HR-136
El. 771'-0"	L-26	1HR-125
El. 771'-0"	L-31	2HR-125
b. Reactor Building		
El. 645'-0"	R-29	1HR-271
El. 645'-0"	P-20.6	1HR-272
El. 645'-0"	U-22	1HR-273
El. 645'-0"	R-37.4	2HR-271
El. 645'-0"	U-30.5	2HR-272
El. 645'-0"	R-30	2HR-273
El. 670'-0"	O-27.5	1HR-261
El. 670'-0"	Q-29	1HR-262
El. 670'-0"	T-22	1HR-263
El. 683'-0"	Q-27.5	1HR-251
El. 683'-0"	Q-20.6	1HR-252
El. 683'-0"	T-22	1HR-253
El. 719'-1"	Q-27.5	1HR-241
El. 719'-1"	S-27.5	1HR-242
El. 719'-1"	Q-20.6	1HR-243
El. 719'-1"	T-20.6	1HR-244
El. 719'-1"	T-23.5	1HR-245
El. 749'-1"	S-27.5	1HR-231
El. 749'-1"	S-27.5	1HR-231
El. 749'-1"	Q-20.6	1HR-232
El. 749'-1"	T-20.6	1HR-233
El. 779'-1"	P-26.5	1HR-221
El. 779'-1"	S-26.5	1HR-222
El. 779'-1"	Q-22	1HR-223
El. 779'-1"	U-20.6	1HR-224
El. 779'-1"	T-23.3	1HR-211
El. 818'-1"	P-26.5	1HR-201
El. 818'-1"	U-26.5	1HR-202
El. 818'-1"	Q-20.6	1HR-203
c. Diesel Generator E Building		
El. 656'-6"	NEAR NORTH STAIRWELL	OHR-811
El. 656'-6"	NEAR SOUTH STAIRWELL	OHR-812
El. 676'-6"	NEAR NORTH STAIRWELL	OHR-821
El. 676'-6"	NEAR SOUTH STAIRWELL	OHR-822
El. 708'-0"	NEAR NORTH STAIRWELL	OHR-831
El. 708'-0"	NEAR SOUTH STAIRWELL	OHR-832

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3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

A.C. SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and

b. Four of the five separate and independent diesel generators*, each with:

1. Separate engine mounted day fuel tanks containing a minimum of 325 gallons of fuel,
2. A separate fuel storage system containing a minimum of 47,570 gallons of fuel for diesel generators A, B, C & D, and 60,480 gallons for diesel generator G, and
3. A separate fuel transfer pump.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:#

a. With either one offsite circuit or one diesel generator of the above required A.C. electrical power sources inoperable for any reason other than aligning diesel generator G to the Class 1E distribution system, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a within 1 hour and 4.8.1.1.2.a.4, for one diesel generator at a time, within 4 hours and at least once per 8 hours therafter; restore at least two offsite circuits and four diesel generators to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a within 1 hour and 4.8.1.1.2.a.4, for one diesel generator at a time, within 3 hours and at least once per 8 hours thereafter; restore at least one of the inoperable A.C. sources to OPERABLE status within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore at least two offsite circuits and four diesel generators to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

*Shared with Unit 2.

#Prior to but within 24 hours of removing any diesel generator from service in order to do work associated with tying in the additional diesel generator, Surveillance Requirement 4.8.1.1.2.a.4 shall be performed on the diesel generators which are to remain in service.

When any diesel generator is removed from service in order to do work associated with tying in the additional diesel generator, the ACTIONS shall read as follows:

a. With one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a within one hour and 4.8.1.1.2.a.4, within 72 hours and at least once per 72 hours thereafter; restore at least four diesel genarators to OPERABLE status within 60 days of accumulated tie-in outage time for all four diesels or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. The provisions of Specification 3.0.4 are not applicable.

b. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a within one hour and 4.8.1.1.2.a.4, within 24 hours and at least once per 72 hours thereafter; restore at least two offsite circuits to OPERABLE status within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. With the two offsite circuits restored to OPERABLE status, follow ACTION a.

c. With one diesel generator of the above required A.C. electrical power sources inoperable, in addition to ACTION a or b, above, verify within 2 hours that all required systems, subsystems, trains, components and devices that depend on the remaining diesel generators as a source of emergency power are also OPERABLE except as noted in Specification 3.7.1.2; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

d. With two of the above required offsite circuits inoperable, demonstrate the OPERABILITY of four diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4, for one diesel generator at a time, within four hours and at least once per 8 hours thereafter, unless the diesel generators are already operating; restore at least one of the inoperable offsite circuits to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours. With only one offsite circuit restored to OPERABLE status, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

e. With two or more of the above required diesel generators inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and 4.8.1.1.2.a.4, for one diesel generator at a time, within 2 hours; restore at least three of the diesel generators to OPERABLE status within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. With three diesel generators restored to OPERABLE status, follow ACTION a.

ACTION (Continued) for any reason other than aligning diesel generator E to the Class 1E distribution system,

c. With one diesel generator of the above required A.C. electrical power sources inoperable, in addition to ACTION a or b, above, verify within 2 hours that all required systems, subsystems, trains, components and devices that depend on the remaining diesel generators as a source of emergency power are also OPERABLE; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

d. With two of the above required offsite circuits inoperable, demonstrate the OPERABILITY of four diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4, for one diesel generator at a time, within four hours and at least once per 8 hours thereafter, unless the diesel generators are already operating; restore at least one of the inoperable offsite circuits to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours. With only one offsite circuit restored to OPERABLE status, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

e. With two or more of the above required diesel generators inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and 4.8.1.1.2.a.4, for one diesel generator at a time, within 2 hours, and at least once per 8 hours thereafter; restore at least three of the diesel generators to OPERABLE status within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore four diesel generators to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability, and

b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring, manually and automatically, unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each of the above required diesel generators shall be demonstrated OPERABLE:

a. In accordance with the frequency specified in Table 4.8.1.1.2-1 on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the engine-mounted day fuel tank.

2. Verifying the fuel level in the fuel storage tank.

3. Verifying the fuel transfer pump starts and transfers fuel from the storage system to the engine-mounted day fuel tank.

4. Verifying the diesel starts from ambient condition and accelerates to at least 600 rpm in less than or equal to 10 seconds. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal. The diesel generator shall be started for this test by using one of the following signals:

a) Manual.
b) Simulated loss of offsite power by itself.
c) Simulated loss of offsite power in conjunction with an ESF actuation test signal.
d) An ESF actuation test signal by itself.

5. Verifying the diesel generator is synchronized, loaded to greater than or equal to 4000 kw in less than or equal to 90 seconds, and operates with this load for at least 60 minutes.

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

7. Verifying the pressure in all diesel generator air start receivers to be greater than or equal to 240 psig.

b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the engine-mounted day fuel tanks.

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 92 days and from new fuel oil prior to addition to the storage tanks by verifying that a sample obtained in accordance with ASTM-D270-1975 has a water and sediment content of less than or equal to .05 volume percent and a kinematic viscosity @ 40°C of greater than or equal to 1.3 but less than or equal to 2.4 for 1D oil or >1.9 but <4.1 for 2D oil when tested in accordance with ASTM-D975-77, and an impurity level of less than 2 mg. of insolubles per 100 ml. when tested in accordance with ASTM-D2274-70.

d. At least once per 18 months by:

1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.

2. Verifying the diesel generator capability to reject a load of greater than or equal to 1425 kw while maintaining voltage at 4160 ± 400 volts and frequency at 60 ± 3.0 Hz.

3. Verifying the diesel generator capability to reject a load of 4000 kw without tripping. The generator voltage shall not exceed ~~4360~~ 4660 volts during and following the load rejection.

4. Simulating a loss of offsite power by itself, and:

   a) Verifying deenergization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± ~~200~~ 400 volts and 60 ± ~~0.5~~ 3.0 Hz during this test.

5. Verifying that on an ECCS actuation test signal, without loss of offsite power, the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± ~~200~~ 400 volts and 60 ± ~~0.5~~ 3.0 Hz within 10 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

SURVEILLANCE REQUIREMENTS (Continued)

6. Simulating a loss-of-offsite power in conjunction with an ECCS actuation test signal, and: |29

   a) Verifying deenergization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected loads through the load timers and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test.

   c) Verifying that all automatic diesel generator trips, except engine overspeed, generator differential and engine low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal.

7. Verifying the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 4700 kW and during the remaining 22 hours of this test, the diesel generator shall be loaded to 4000 kW. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test. Within 5 minutes after completing this 24-hour test, perform Surveillance Requirement 4.8.1.1.2.d.4.b).* |29 |29 |29

8. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000-hour rating of 4700 kW_x for diesel generators A, B, C & D; and the continuous rating of 5000 kw for diesel generator E. |29

9. Verifying the diesel generator's capability to:

   a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

   b) Transfer its loads to the offsite power source, and

   c) Be restored to its standby status.

*If Surveillance Requirement 4.8.1.1.2.d.4.b) is not satisfactorily completed, it is not necessary to repeat the preceding 24 hour test. Rather, the diesel generator may be operated at 4000 kW for 1 hour or until operating temperature has stabilized. |29

SURVEILLANCE REQUIREMENTS (Continued)

10. Verifying that with the diesel generator operating in a test mode and connected to its bus, a simulated ECCS actuation signal overrides the test mode by (1) returning the diesel generator to standby operation, and (2) automatically energizes the emergency loads with offsite power.

~~11. Verifying that the fuel transfer pump transfers fuel from each fuel storage tank to the engine-mounted day tank of each diesel via the installed cross-connection lines.~~

11. ~~12.~~ Verifying that each diesel generator loading sequence timer shown in Table 4.8.1.1.2-2 is OPERABLE with its setpoint within ± 10% of its design setpoint.

12. ~~13.~~ Verifying that the following diesel generator lockout features prevent diesel generator starting and/or operation only when required:

a) Engine overspeed.
b) Generator differential.
c) Engine low lube oil pressure.

e. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting all diesel generators simultaneously, during shutdown, and verifying that all diesel generators accelerate to at least 600 rpm in less than or equal to 10 seconds.

f. At least once per 10 years by:

1. Draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank using a sodium hypochlorite or equivalent solution, and

2. Performing a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with ASME Code Section XI Article IWD-5000. 29

SEE INSERT A ← 4.8.1.1.3

4.8.1.1.4

~~4.8.1.1.3~~ Reports - All diesel generator failures, valid or non-valid, shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2 within 30 days. Reports of diesel generator failures shall include the information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977. If the number of failures in the last 100 valid tests, on a per nuclear unit basis, is greater than or equal to 7, the report shall be supplemented to include the additional information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977. 26

of the required diesel generators

TABLE 4.8.1.1.2-1

DIESEL GENERATOR TEST SCHEDULE

Number of Failures in Last 100 Valid Tests*(#)	Test Frequency
≤ 1	At least once per 31 days
2	At least once per 14 days
3	At least once per 7 days
≥ 4	At least once per 3 days

*Criteria for determining number of failures and number of valid tests shall be in accordance with Regulatory Position C.2.e of Regulatory Guide 1.108, Revision 1, August 1977, where the last 100 tests are determined on a per nuclear unit basis. For the purposes of this test schedule, only valid tests conducted after the OL issuance date shall be included in the computation of the "last 100 valid tests." Entry into this test schedule shall be made at the 31 day test frequency.

When diesel generator E is not aligned to the Class 1E distribution system, any failures will not be credited to the total failures for determining the test frequency of the diesel generators required to be OPERABLE

TABLE 4.8.1.1.2-2
UNIT 1 UNIT 2
DIESEL GENERATOR LOADING TIMERS

DEVICE TAG NO.	SYSTEM	LOCATION	TIME SETTING
62A-20102	RHR Pump 1A	1A201	3 sec
62A-20202	RHR Pump 1B	1A202	3 sec
62A-20302	RHR Pump 1C	1A203	3 sec
62A-20402	RHR Pump 1D	1A204	3 sec
62A-20102	RHR Pump 2A	2A201	3 sec
62A-20202	RHR Pump 2B	2A202	3 sec
62A-20302	RHR Pump 2C	2A203	3 sec
62A-20402	RHR Pump 2D	2A204	3 sec
K116A	CS pp 1A	1C626	10.5 sec
K116B	CS pp 1B	1C627	10.5 sec
K125A	CS pp 1C	1C626	10.5 sec
K125B	CS pp 1D	1C627	10.5 sec
K116A	CS pp 2A	2C626	10.5 sec
K116B	CS pp 2B	2C627	10.5 sec
K125A	CS pp 2C	2C626	10.5 sec
K125B	CS pp 2D	2C627	10.5 sec
62AX2-20108	Emergency Service Water (ESW)	1A201	40 sec
62AX2-20208	Emergency Service Water (ESW)	1A202	40 sec
62AX2-20303	Emergency Service Water (ESW)	1A203	44 sec
62AX2-20403	Emergency Service Water (ESW)	1A204	48 sec
62X3-20304	Control Structure Chilled Water System	0C877A	60 sec
62X3-20404	Control Structure Chilled Water System	0C877B	60 sec
62X-20104	Emergency Switchgear Rm. Cooler A & RHR SW pp H&V Fan A	0C877A	60 sec

TABLE 4.8.1.1.2-2 (Continued)

UNIT 1 AND UNIT 2

DIESEL GENERATOR LOADING TIMERS

DEVICE TAG NO.	SYSTEM	LOCATION	TIME SETTING
62X-20204	Emergency Switchgear Rm Cooler B & RHR SW pp H&V Fan B	0C877B	60 sec
262X-20104	Emergency Switchgear Rm Cooler A	0C877A	120 sec
262X-20204	Emergency Switchgear Rm Cooler B	0C877B	120 sec
* 62X-516	DG Rm Exh Fan A	0B516	2 min
* 62X-526	DG Rm Exh Fan B	0B526	2 min
* 62X-536	DG Rm Exh Fan C	0B536	2 min
* 62X-546	DG Rm Exh Fan D	0B546	2 min
62X1-20304	Control Structure Chilled Water System	0C877A	3 min
62X1-20404	Control Structure Chilled Water System	0C877B	3 min
62X1-20310	Control Structure Chilled Water System	0C876A	3 min
62X2-20410	Control Structure Chilled Water System	0C876B	3 min
62X2-20304	Control Structure Chilled Water System	0C877A	3.5 min
62X2-20404	Control Structure Chilled Water System	0C877B	3.5 min
62X-K11AB	Emergency Switchgear Rm Cooling Compressor A	2CB250A	260 sec
62X-K11BB	Emergency Switchgear Rm Cooling Compressor B	2CB250B	260 sec

INSERT A

CRX-5652A	DG Room Supply Fan E1	0B565	2 min
CRx-5652A	DG Room Supply Fan E2	0B565	2 min.
62x-5653A	DG Room Exhaust Fan E3	0B565	3 min **
62X-56552A	DG Room Exhaust Fan E4	0B565	3 min ***

* When associated diesel generator is declared OPERABLE

** Starts 1 minute after E2 starts

*** Starts 1 minute after E1 starts

INSERT A

4.8.1.1.3 When substituting diesel generator E for diesel generator A,B,C or D, diesel generator E shall be demonstrated OPERABLE by:

a. Verifying diesel generator E energizes the appropriate emergency bus.

b. Verifying that at least once within the previous 31 days the following have been verified:

1. The fuel level in the engine-mounted day fuel tank.

2. The fuel level in the fuel storage tank.

3. The fuel transfer pump started and transferred fuel from the storage system to the engine-mounted day fuel tank.

4. The diesel manually started from ambient condition and accelerates to at least 600 rpm in less than or equal to 10 seconds. The generator voltage and frequency were 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal.

5. The diesel generator was synchronized, loaded to greater than or equal to 4000 kw in less than or equal to 90 seconds, and operated with this load for at least 60 minutes.

6. The pressure in the diesel generator air start receivers to be greater than or equal to 240 psig.

c. Verifying that at least once within the previous 31 days and after each operation of the diesel, within the previous 31 days, where the period of operation was greater than or equal to 1 hour that a check was made for accumulated water from the engine-mounted day fuel tanks.

d. Verifying that at least once within the previous 92 days and from new fuel oil prior to addition to the storage tanks that a sample obtained in accordance with ASTM-D270-1975 has a water and sediment content of less than or equal to .05 volume percent and a kinematic viscosity @ 40°C of greater than or equal to 1.3 but less than or equal to 2.4 for 1D oil or 1.9 but 4.1 for 2D oil when tested in accordance with ASTM-D975-77, and an impurity level of less than 2 mg. of insolubles per 100 ml. when tested in accordance with ASTM-D2274-70.

e. Verifying that at least once within the previous 18 months if specification 4.8.1.1.2.d has not been performed:

1. An inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service was performed.

2. The diesel generators capability to reject a load of greater than or equal to 1425 kw while maintaining voltage at 4160 ± 400 volts and frequency at 60 ± 3.0 Hz was tested.

3. The diesel generators capability to reject a load of 4000 kw without tripping. The generator voltage shall not exceed 4360 volts during and following the load rejection was tested.

4. The diesel generator operated for at least 24 hours. During the first 2 hours of this test, the diesel generator was loaded to greater than or equal to 4700 kW and during the remaining 22 hours of this test, the diesel generator was be loaded to 4000 kW. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal; the steady state generator voltage and frequency were maintained within these limits during this test.

5. The following diesel generator lockout features prevented diesel generator starting and/or operation only when required:

   a) Engine overspeed.
   b) Generator differential.
   c) Engine low lube oil pressure.

6. Either:

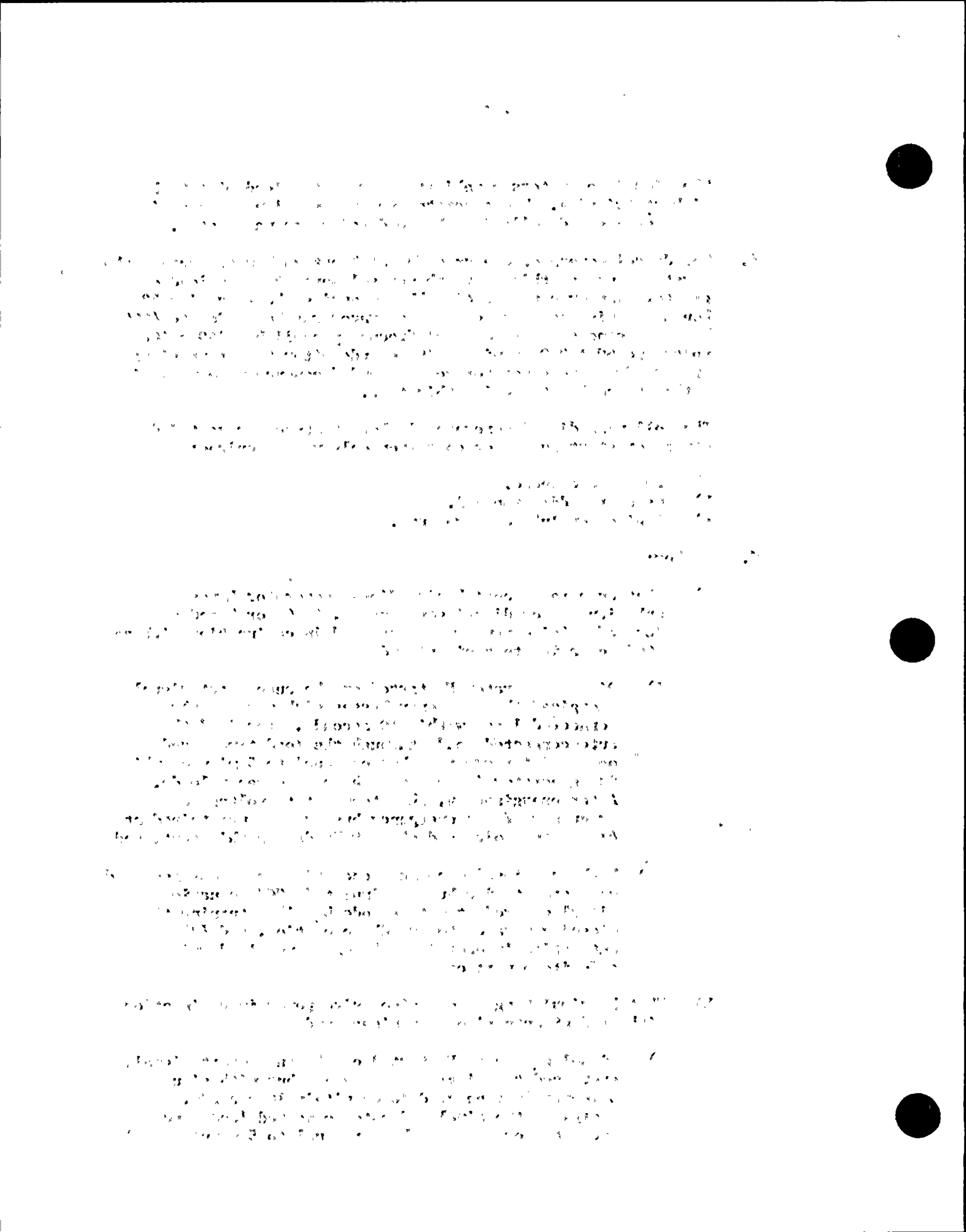
   a) That on a rotational basis, diesel generator E was substituted for diesel generator A, B, C, or D and a loss-of-offsite power was simulated in conjunction with an ECCS actuation test signal and:

      i) Diesel generator E started on the auto start signal, energized the emergency busses with permanently connected loads within 10 seconds, energized the auto-connected loads through the load timers and operated for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses were maintained at 4160 ± 400 volts and 60 ± 30 Hz during this test, and

      ii) With the diesel generator operating in a test mode and connected to its bus, a simulated ECCS actuation signal overrode the test mode by (1) returning the diesel generator to standby operation, and (2) automatically energizes the emergency loads with off-site power; or

   b) That by simulating a loss-of-offsite power in conjunction with an ECCS actuation test signal and:

      i) Diesel generator E started on the auto start signal, energized the simulated emergency bus with simulated permanently connected loads within 10 seconds, energized the simulated auto-connected loads and operated for greater than or equal to 5 minutes while



its generator is loaded with the simulated emergency loads. After energization, the steady state voltage and frequency of the emergency busses were maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test, and

ii) On a rotational basis, diesel generator E was substituted for diesel generator A, B, C, or D and verify that diesel generator E energized the appropriate emergency bus.

e. Verifying that once per 10 years if Specification 4.8.1.1.2f has not been performed:

1. The fuel oil storage tank has been drained, removing the accumulated sediment and cleaned using a sodium hypochlorite or equivalent solution, and

2. A pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with ASME Code Section II Article IWD-5000 has been performed.

ELECTRICAL POWER SYSTEMS

A.C. SOURCES - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

b. Two (each) diesel generators (of the five separate and independent) with:

1. An engine mounted day fuel tank containing a minimum of 325 gallons of fuel (for diesels A, B, C & D; and 60,480 gallons for diesel generator E,

2. A fuel storage system containing a minimum of 47,570 gallons of fuel.

3. A fuel transfer pump.

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5 and *.

ACTION:

a. With less than the above required A.C. electrical power sources OPERABLE, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment, operations with a potential for draining the reactor vessel and crane operations over the spent fuel pool when fuel assemblies are stored therein. In addition, when in OPERATIONAL CONDITION 5 with the water level less than 22 feet above the reactor pressure vessel flange, immediately initiate corrective action to restore the required power sources to OPERABLE status as soon as practical.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.1.2 At least the above required A.C. electrical power sources shall be demonstrated OPERABLE per Surveillance Requirements 4.8.1.1.1, 4.8.1.1.2 and ~~4.8.1.1.3,~~ 4.8.1.1.4 except for the requirement of 4.8.1.1.2.a.5.

*When handling irradiated fuel in the secondary containment.

3/4.8.2 D.C. SOURCES

D.C. SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.2.1 As a minimum, the following D.C. electrical power sources shall be OPERABLE:

a. Division I, consisting of:

1. Load group Channel "A" power source consisting of:
   a) 125 volt DC battery bank — 1D610, 2D610*
   b) Full capacity charger — 1D613, 2D613*
2. Load group Channel "C" power source consisting of:
   a) 125 volt DC battery bank — 1D630, 2D630*
   b) Full capacity charger — 1D633,2D633*
3. Load group "I" power source consisting of:
   a) 250 volt DC battery — 1D650
   b) Half-capacity chargers — 1D653A, 1D653B
4. Load group "I" power source consisting of:
   a) ± 24 volt DC battery bank — 1D670
   b) Two half-capacity chargers — 1D673, 1D674

b. Division II, consisting of:

1. Load group Channel "B" power source consisting of:
   a) 125 volt DC battery bank — 1D620, 2D620*
   b) Full capacity charger — 1D623, 2D623*
2. Load group Channel "D" power source consisting of:
   a) 125 volt DC battery bank — 1D640, 2D640*
   b) Full capacity charger — 1D643, 2D643*
3. Load group "II" power source consisting of:
   a) 250 volt DC battery bank — 1D660
   b) Full capacity charger — 1D663
4. Load group "II" power source consisting of:
   a) ± 24 volt DC battery bank — 1D680
   b) Two half-capacity chargers — 1D683, 1D684

SEE INSERT A ← C.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3

ACTION:

a. With one of the above required Unit 1 125 volt or 250 volt DC load group battery banks inoperable, restore the inoperable battery bank to OPERABLE status within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With one or more of the above required Unit 2 125-volt DC load group battery banks inoperable, within 2 hours either:

1. Restore the inoperable battery bank(s) to OPERABLE status, or

*Not required to be OPERABLE when the requirements of ACTION b have been satisfied.

Insert A

c. Diesel Generator E

1. Load group power source, consisting of:

a) 125 volt DC battery bank 0D595

b) Full capacity charger 0D596

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

2. Transfer the Unit 1 and common loads aligned to the inoperable Unit 2 battery bank(s) to the corresponding Unit 1 battery bank(s). 31

Otherwise, declare the Unit 1 and common loads aligned to the inoperable Unit 2 battery bank(s) inoperable and take the ACTION required by the applicable Specification(s).

c. With the Unit 1 loads associated with one or more of the above required Unit 1 125-volt DC load group battery bank(s) aligned to the corresponding Unit 2 load group battery bank(s), realign the Unit 1 loads to the Unit 1 battery bank(s) within 72 hours after restoring the Unit 1 battery bank(s) to OPERABLE status; otherwise, declare the Unit 1 loads aligned to the Unit 2 battery bank(s) inoperable and take the ACTION required by the applicable Specification(s).

d. With one of the above required ± 24 volt DC load group battery banks inoperable, declare the associated equipment inoperable and take the ACTION required by the applicable Specification(s). 31

Division I or Division II

e. With one of the above required chargers inoperable, demonstrate the OPERABILITY of its associated battery bank by performing Surveillance Requirement 4.8.2.1.a.1 within 1 hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare the battery inoperable. 31 29

SEE INSERT B ← f. g. h. i.

SURVEILLANCE REQUIREMENTS

4.8.2.1 Each of the above required ± 24-volt, 125-volt and 250-volt batteries and chargers shall be demonstrated OPERABLE:

a. At least once per 7 days by verifying that:

1. The parameters in Table 4.8.2.1-1 meet the Category A limits, and

2. There is correct breaker alignment to the battery chargers, and total battery terminal voltage is greater than or equal to 26, 129, 258-volts on float charge.

b. At least once per 92 days and within 7 days after a battery discharge with battery terminal voltage below 22, 110 or 220 volts, as applicable, or battery overcharge with battery terminal voltage above 30, 150 or 300 volts, as applicable, by verifying that:

1. The parameters in Table 4.8.2.1-1 meet the Category B limits,

2. There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is less than 150×10^{-6} ohm, and 29

3. The average electrolyte temperature of 4, 10 or 20, as applicable, of connected cells for the 24, 125 and 250 volt batteries is above 60°F.

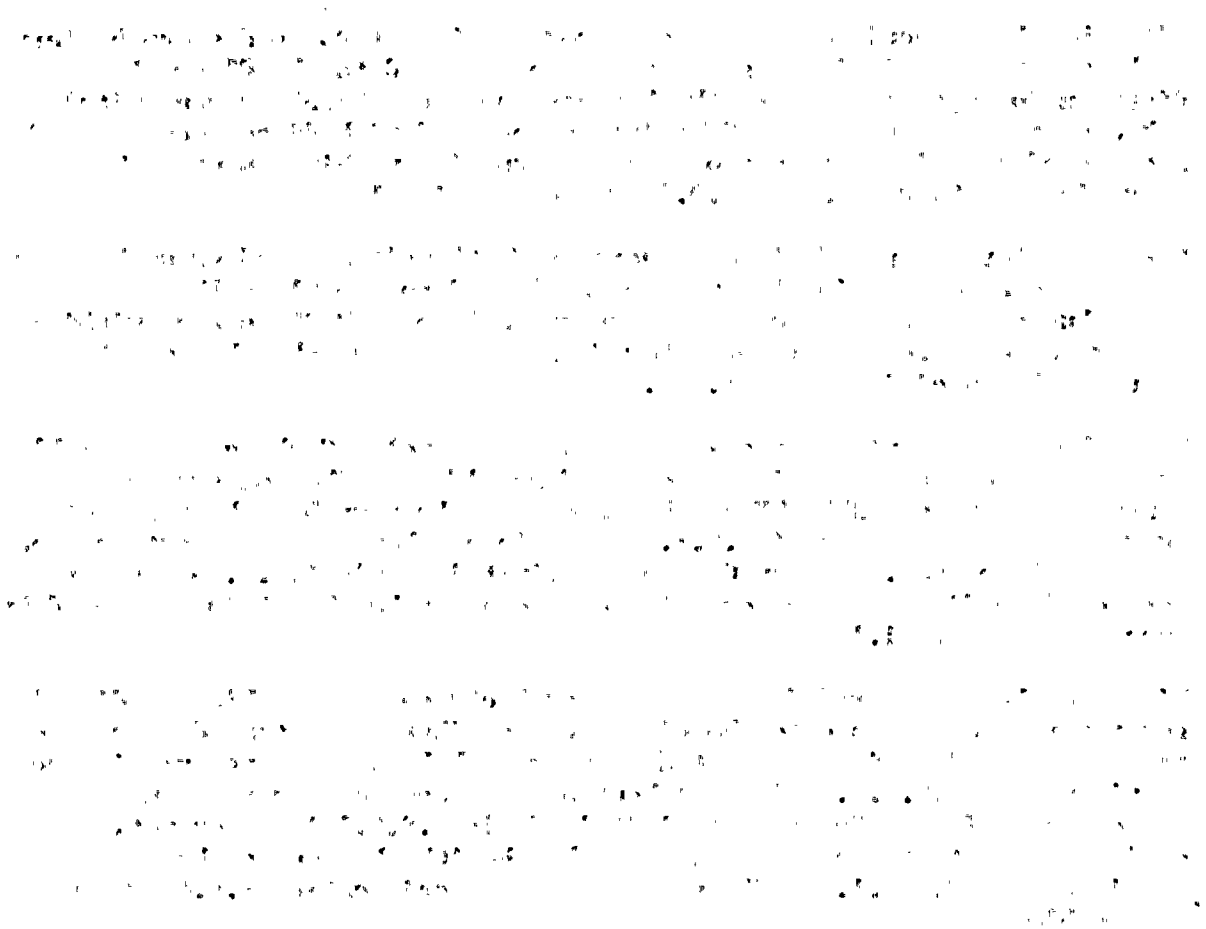
Insert B

f. With the above required diesel generator E 125 volt DC load group battery bank inoperable and diesel generator E not aligned to the Class 1E distribution system, restore the battery bank to OPERABLE status within 2 hours or verify that all ESW valves associated with diesel generator E are closed and diesel generator E is not running within 2 hours. The provisions of Specification 3.0.4 are not applicable.

g. With the above required diesel generator E 125 volt DC load group battery bank inoperable and diesel generator E aligned to the Class 1E distribution system, restore the battery bank to OPERABLE status within 2 hours or declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.1.

h. With the above required diesel generator E 125 volt DC charger inoperable and diesel generator E aligned to the Class 1E distribution system, demonstrate the OPERABILITY of the associated battery bank by performing Surveillance Requirement 4.8.2.1.a.1 within one hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.1.

i. With the above required diesel generator E charger inoperable and diesel generator E not aligned to the Class 1E distribution system, demonstrate the OPERABILITY of its associated battery bank by performing Surveillance Requirement 4.8.2.1.a.1 within 1 hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare the battery inoperable, and take the ACTION required by specification 3.8.2.1.f. The provisions of Specification 3.0.4 are not applicable.



SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months by verifying that:

1. The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,

2. The cell-to-cell and terminal connections are clean, tight, free of corrosion and coated with anti-corrosion material,

3. The resistance of each cell-to-cell and terminal connection of each 125-volt and 250-volt battery is less than or equal to 150×10^{-6} ohm, and

4. The battery charger, for at least 4 hours, will supply at least:

a) For the ± 24-volt batteries, 25 amperes at a minimum of 25.7 volts.

b) For the 125-volt batteries, 100 amperes at a minimum of 127.8 volts.

c) For the 250-volt batteries, 300 amperes at a minimum of 255.6 volts.

d) For the 125-volt diesel generator E batteries, 200 amperes at a minimum of 127.8 volts

d. At least once per 18 months by verifying that either:

1. The battery capacity is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for the design duty cycle when the battery is subjected to a battery service test, or

2. The battery capacity is adequate to supply a dummy load of the following profile, which is verified to be greater than the actual emergency loads, while maintaining the battery terminal voltage greater than or equal to ± 21, 105 or 210 volts, as applicable.

a) For ± 24-volt battery banks 1D670, 1D670-1, 1D680 and 1D680-1, 9.37 amperes for the entire 4 hour test.

b) For 125-volt batteries:

1) Channel A battery 1D612:
325 amperes for 60 seconds
107 amperes for the remainder of the 4 hour test

2) Channel "B" battery 1D622:
323 amperes for 60 seconds
105 amperes for the remainder of the 4 hour test

3) Channel "C" battery 1D632:
340 amperes for 60 seconds
121 amperes for the remainder of the 4 hour test

4) Channel "D" battery 1D642:
323 amperes for 60 seconds
104 amperes for the remainder of the 4 hour test.

5) Channel "A" battery 2D612:
328 amperes for 60 seconds
112 amperes for the remainder of the 4 hour test.

6) Channel "B" battery 2D622:
326 amperes for 60 seconds
110 amperes for the remainder of the 4 hour test.

7) Channel "C" battery 2D632:
343 amperes for 60 seconds
128 amperes for the remainder of the 4 hour test.

8) Channel "D" battery 2D642:
326 amperes for 60 seconds
111 amperes for the remainder of the 4 hour test.

9) Channel "H" battery 0D595:
286 amperes for the first 60 seconds
95 amperes for the next 238 minutes
155 amperes for the last minute of the 4 hour test.

c) For 250-volt batteries:

1) Battery bank 1D650:

1091	amperes	for	60 seconds
567	amperes	for	29.0 minutes
113	amperes	for	60.0 minutes
24	amperes	for	150.0 minutes

2) Battery bank 1D660:

1314	amperes	for	60 seconds
465	amperes	for	60 seconds
365	amperes	for	28.0 minutes
323	amperes	for	15.0 minutes
185	amperes	for	195.0 minutes

e. At least once per 60 months by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. Once per 60 month interval, this performance discharge test may be performed in lieu of the battery service test.

f. Annual performance discharge tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

TABLE 4.8.2.1-1

BATTERY SURVEILLANCE REQUIREMENTS

	CATEGORY A(1)	CATEGORY B(2)	
Parameter	Limits for each designated pilot cell	Limits for each connected cell	Allowable(3) value for each connected cell
Electrolyte Level	>Minimum level indication mark, and ≤ ¼" above maximum level indication mark	>Minimum level indication mark, and ≤ ¼" above maximum level indication mark	Above top of plates, and not overflowing
Float Voltage	> 2.13 volts	≥ 2.13 volts(c)	> 2.07 volts
Specific Gravity(a)	≥ 1.200(b)	≥ 1.195(b)	Not more than .020 below the average of all connected cells
		Average of all connected cells > 1.205(b)	Average of all connected cells ≥ 1.195(b)

(a) Corrected for electrolyte temperature and level.
(b) Or battery charging current is less than 0.01, 0.1 and 0.25 amperes for the ±24, 125 and 250 volt batteries, respectively, when on float charge.
(c) May be corrected for average electrolyte temperature.
(1) For any Category A parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that within 24 hours all the Category B measurements are taken and found to be within their allowable values, and provided all Category A and B parameter(s) are restored to within limits within the next 6 days.
(2) For any Category B parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that the Category B parameters are within their allowable values and provided the Category B parameter(s) are restored to within limits within 7 days.
(3) Any Category B parameter not within its allowable value indicates an inoperable battery.

D.C. SOURCES - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.2.2 As a minimum, Division I or Division II of the D.C. electrical power sources shall be OPERABLE with: and diesel generator E

a. Division I consisting of:

1. Load group Channel "A" power source, consisting of:
   a) 125 volt DC battery bank — 1D610, 2D610**
   b) Full capacity charger — 1D613, 2D613**

2. Load group Channel "C" power source, consisting of:
   a) 125 volt DC battery bank — 1D630, 2D630**
   b) Full capacity charger — 1D633, 2D633**

3. Load group "I" power source, consisting of:
   a) 250 volt DC battery bank — 1D650
   b) Half-capacity chargers — 1D653A, 1D653B

4. Load group "I" power source, consisting of:
   a) ± 24 volt DC battery bank — 1D670
   b) Two half-capacity chargers — 1D673, 1D674

b. Division II consisting of:

1. Load group Channel "B" power source, consisting of:
   a) 125 volt DC battery bank — 1D620, 2D620**
   b) Full capacity charger — 1D623, 2D623**

2. Load group Channel "D" power source, consisting of:
   a) 125 volt DC battery bank — 1D640, 2D640**
   b) Full capacity charger — 1D643, 2D643**

3. Load group "II" power source, consisting of:
   a) 250 volt DC battery bank — 1D660
   b) Full capacity charger — 1D663

4. Load group "II" power source, consisting of:
   a) ± 24 volt DC battery bank — 1D680
   b) Two half-capacity chargers — 1D683, 1D684

SEE INSERT A ← C.

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5, and *.

ACTION: Division I ~~(a.1 or a.2)~~ or Division II ~~(b.1 or b.2)~~

a. With less than the above required Unit 1 125 volt and/or 250 volt DC load group battery banks OPERABLE, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

b. With less than the above required Unit 2 125-volt DC load group battery banks OPERABLE, either:

*When handling irradiated fuel in the secondary containment.
**Not required to be OPERABLE when the requirements of ACTION b have been satisfied.

Insert A

c. Diesel Generator E

1. Load group power source, consisting of:

a) 125 volt DC battery bank OD595

b) Full capacity charger OD596

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

1. Suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel, or

2. Transfer the Unit 1 and common loads aligned to the inoperable Unit 2 battery bank(s) to the corresponding Unit 1 battery bank(s).

Otherwise, declare the Unit 1 and common loads aligned to the inoperable Unit 2 battery bank(s) inoperable and take the ACTION required by the applicable Specification(s).

c. With the Unit 1 loads associated with one or more of the above required Unit 1 125-volt DC load group battery bank(s) aligned to the corresponding Unit 2 load group battery bank(s), realign the Unit 1 loads to the Unit 1 battery bank(s) within 72 hours after restoring the Unit 1 battery bank to OPERABLE status; otherwise, declare the Unit 1 loads aligned to the Unit 2 battery bank(s) inoperable and take the ACTION required by the applicable Specification(s).

d. With the above required ± 24 volt D.C. load group battery banks inoperable, declare the associated equipment inoperable and take the ACTION required by the applicable Specification(s).

Division I ~~(3.8.2.2a)~~ or Division II ~~(3.8.2.2b)~~

e. With the above required charger(s) inoperable, demonstrate the OPERABILITY of the associated battery by performing Surveillance Requirement 4.8.2.1.a.1 within one hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare the battery inoperable.

f. The provisions of Specification 3.0.3 are not applicable.

SEE INSERT B ← 9. h. i.

SURVEILLANCE REQUIREMENTS

4.8.2.2 At least the above required battery and charger shall be demonstrated OPERABLE per Surveillance Requirement 4.8.2.1.

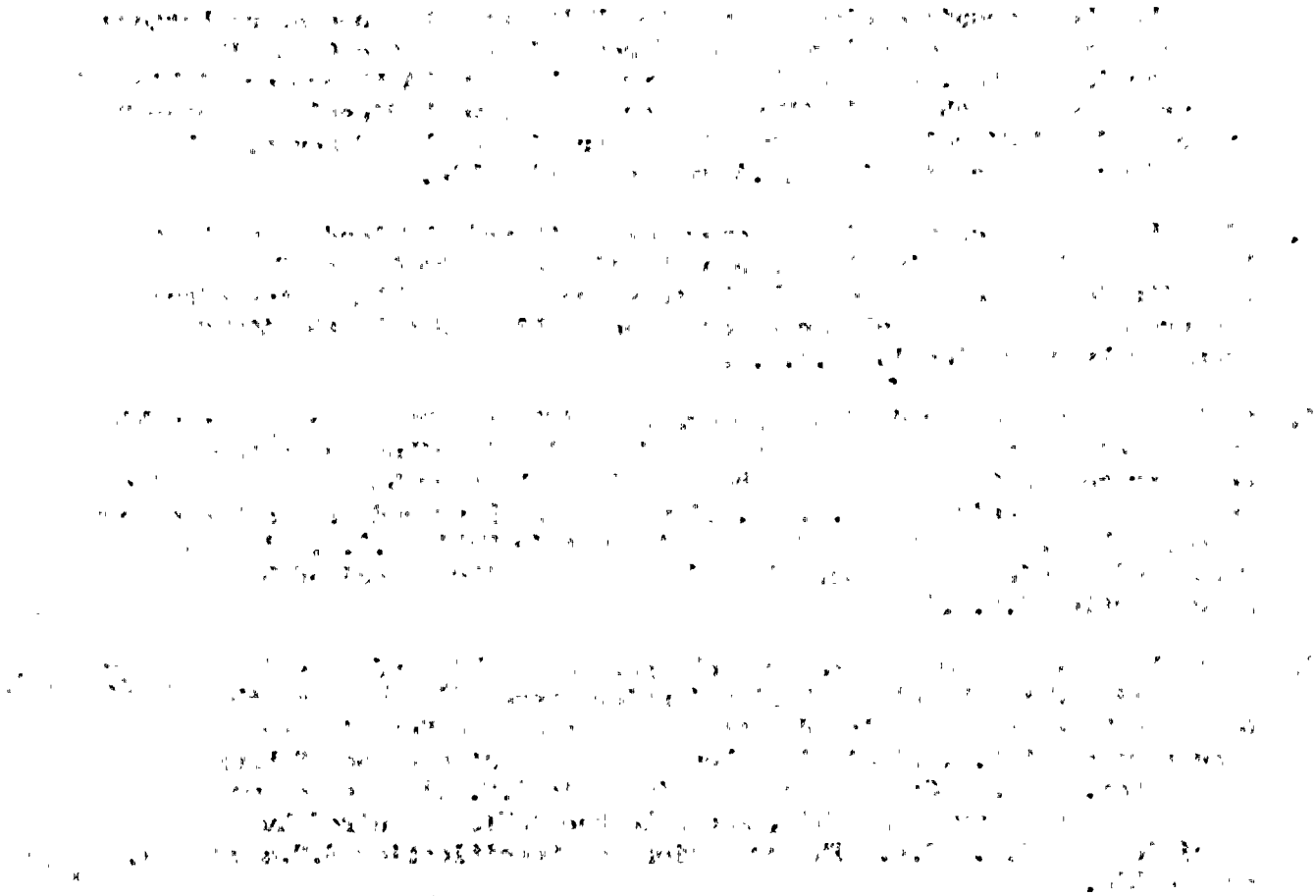
Insert B

g. With the above required diesel generator E 125 volt DC load group battery bank inoperable and diesel generator E not aligned to the Class 1E distribution system, restore the battery bank to OPERABLE status within 2 hours or verify that all ESW valves associated with diesel generator E are closed and diesel generator E is not running within 2 hours. The provisions of Specification 3.0.4 are not applicable.

h. With the above required diesel generator E 125 volt DC load group battery bank inoperable and diesel generator E aligned to the Class 1E distribution system, restore the battery bank to OPERABLE status within 2 hours or declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.2.

i. With the above required diesel generator E 125 volt DC charger inoperable and diesel generator E aligned to the Class 1E distribution system, demonstrate the OPERABILITY of the associated battery bank by performing Surveillance Requirement 4.8.2.1.a.1 within one hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare diesel E inoperable and take the ACTION required by specification 3.8.1.2.

j. With the above diesel generator E charger inoperable and diesel generator E not aligned to the Class 1E distribution system, demonstrate the OPERABILITY of the associated battery by performing Surveillance Requirement 4.8.2.1.a.1 within 1 hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare the battery inoperable, and take the ACTION required by specification 3.8.2.2.g. The provisions of Specification 3.0.4 are not applicable.



3/4.8.3 ONSITE POWER DISTRIBUTION SYSTEMS

DISTRIBUTION - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.3.1 The following power distribution system divisions shall be energized with tie breakers open both between redundant buses within the unit and between units at the same station:

a. A.C. power distribution:

1. Division I, consisting of:
   a) Load group Channel "A", consisting of:
      1) 4160 volt A.C. switchgear bus — 1A201
      2) 480 volt A.C. load center — 1B210
      3) 480 volt A.C. motor control center — 08516
   b) Load group Channel "C", consisting of:
      1) 4160 volt A.C. switchgear bus — 1A203
      2) 480 volt A.C. load center — 1B230
      3) 480 volt A.C. motor control center — 08536
   ~~c) Load group 480 volt A.C. motor control centers — 08517, 08126, 18216, 18236, 18217, 18237~~
   ~~d) Load group 208/120 volt A.C. instrument panels — 1Y216, 1Y236~~
   e) Isolated 480 volt A.C. swing bus, including: ~~1B219~~
      1) Preferred power source
      2) Preferred power source MG set
      3) Alternate power source
      4) Automatic transfer switch
2. Division II, consisting of:
   a) Load group Channel"B", consisting of:
      1) 4160 volt A.C. switchgear bus — 1A202
      2) 480 volt A.C. load center — 1B220
      3) 480 volt A.C. motor control center — 08526
   b) Load group Channel "D", consisting of:
      1) 4160 volt A.C. switchgear bus — 1A204
      2) 480 volt A.C. load center — 1B240
      3) 480 volt A.C. motor control center — 08546
   ~~c) Load group 480 volt A.C. motor control centers — 08527, 08146, 18226, 18246, 18227, 18247~~
   ~~d) Load group 208/120 volt A.C. instrument panels — 1Y226, 1Y246~~
   e) Isolated 480 volt A.C. swing bus, including: 1B229
      1) Preferred power source
      2) Preferred power source MG set
      3) Alternate power source
      4) Automatic transfer switch

b. D.C. power distribution:

1. Division I, consisting of:
   a) Load group Channel "A", consisting of:
      1) 125 volt DC buses — 1D612, 2D612,* 1D614, 2D614*
      2) Fuse box — 1D611, 2D611*

Previous change: Submitted under PLA-2562 as Proposed Amendment #74

SEE INSERT A

SEE INSERT B

*Not required to be OPERABLE when the requirements of ACTION c have been satisfied.

INSERT A

a. A.C. power distribution:

1.	Division I, consisting of:	
a)	Load group Channel "A", consisting of:	
1)	4160 volt A.C. switchgear bus	1A201, 0A510A (New change)
2)	480 volt A.C. load center	1B210
3)	480 volt A.C. motor control centers	0B516, 0B517
		1B216, 1B217
4)	208/120 volt A.C. instrument panels	1Y216
b)	Load group Channel "C", consisting of:	
1)	4160 volt A.C. switchgear bus	1A203, 0A510C (New change)
2)	480 volt A.C. load center	1B230
3)	480 volt A.C. motor control centers	0B536, 0B136
		1B236, 1B237
4)	208/120 volt A.C. instrument panels	1Y236
c)	Isolated 480 volt A.C. swing bus, including:	1B219
1)	Preferred power source	
2)	Preferred power source MG set	
3)	Alternate power source	
4)	Automatic transfer switch	
2.	Division II, consisting of:	
a)	Load group Channel "B", consisting of:	
1)	4160 volt A.C. switchgear bus	1A202, 0A510B (New change)
2)	480 volt A.C. load center	1B220
3)	480 volt A.C. motor control centers	0B526, 0B527
		1B226, 1B227
4)	208/120 volt A.C. instrument panels	1Y226
b)	Load group Channel "D", consisting of:	
1)	4160 volt A.C. switchgear bus	1A204, 0A510D (New change)
2)	480 volt A.C. load center	1B240
3)	480 volt A.C. motor control centers	0B546, 0B146
		1B246, 1B247
4)	208/120 volt A.C. instrument panels	1Y246
c)	Isolated 480 volt A.C. swing bus, including:	1B229
1)	Preferred power source	
2)	Preferred power source MG set	
3)	Alternate power source	
4)	Automatic transfer switch	

Insert B

3. Diesel Generator E, when aligned to the Class 1E system

   a) Load group consisting of:

      1) 4160 volt A.C. switchgear bus 0A510E

      2) 480 volt A.C. motor control center 0B565

LIMITING CONDITION FOR OPERATION (Continued)

D.C. power distribution: (Continued)

b) Load group Channel "C", consisting of:
   1) 125 volt DC buses — 1D632, 2D632*, 1D634, 2D634*
   2) Fuse box — 1D631, 2D631*
c) Load group "I", consisting of:
   1) 250 volt DC buses — 1D652, 1D254
   2) Fuse box — 1D651
d) Load group "I", consisting of:
   1) ± 24 volt DC buses — 1D672
   2) Fuse box — 1D671

2. Division II, consisting of:
a) Load group Channel "B" consisting of:
   1) 125 volt DC buses — 1D622, 2D622*, 1D624, 2D624*
   2) Fuse box — 1D621, 2D621*
b) Load group Channel "D" consisting of:
   1) 125 volt DC buses — 1D642, 2D642*, 1D644, 2D644*
   2) Fuse box — 1D641, 2D641*
c) Load group "II" consisting of:
   1) 250 volt DC buses — 1D662, 1D264, 1D274
   2) Fuse box — 1D661
d) Load group "II" consisting of:
   1) ± 24 volt DC buses — 1D682
   2) Fuse box — 1D681

SEE INSERT C

3.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION: Division I or Division II

a. With one of the above required A.C. distribution system load groups not energized, re-energize the load group within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Division I or Division II

b. With one of the above required Unit 1 D.C. distribution system load groups not energized, re-energize the load group within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

c. With one or more of the above required Unit 2 D.C. distribution system load groups not energized, within 2 hours either:

   1. Reenergize the load group(s), or

   2. Transfer the Unit 1 and common loads aligned to the deenergized Unit 2 load group(s) to the corresponding Unit 1 load group(s).

*Not required to be OPERABLE when the requirements of ACTION c have been satisfied.

Insert C

3. Diesel Generator E

a) Load group consisting of:

1) 125 volt D.C. bus OD 597

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

Otherwise, declare the Unit 1 and common loads aligned to the deenergized Unit 2 load group(s) inoperable and take the ACTION required by the applicable Specification(s).

d. With the Unit 1 loads associated with one or more of the above required Unit 1 125-volt D.C. load group(s) aligned to the corresponding Unit 2 load group(s), realign the Unit 1 loads to the Unit 1 load group(s) within 72 hours after restoring the Unit 1 load group(s) to OPERABLE status; otherwise, declare the Unit 1 loads aligned to the Unit 2 load group(s) inoperable and take the ACTION required by the applicable Specification(s).

e. With one or both of the isolated 480 volt A.C. swing busses inoperable, declare the associated LPCI loop inoperable (see Specification 3.5.1).

SEE INSERT D ← f. g. h.

SURVEILLANCE REQUIREMENTS

4.8.3.1.1 Each of the above required power distribution system load groups shall be determined energized at least once per 7 days by verifying correct breaker alignment and voltage on the busses/MCCs/panels.

4.8.3.1.2 The isolated 480 volt A.C. swing bus automatic transfer switches shall be demonstrated OPERABLE at least once per 31 days by actuating the load test switch or by disconnecting the preferred power source to the transfer switch and verifying that swing bus automatic transfer is accomplished.

Insert D

f. With the above required diesel generator E A.C. distribution system load group not energized and diesel generator E aligned to the Class 1E distribution system, re-energize the load group within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

g. With the above required diesel generator E 125 volt D.C. distribution system load group not energized and diesel generator E not aligned to the Class 1E distribution system, re-energize the load group within 2 hours or shutdown diesel generator E and close all ESW valves associated with diesel generator E within 2 hours. The provisions of Specification 3.0.4 are not applicable.

h. With the above required diesel generator E 125 volt D.C. distribution system load group not energized and diesel generator E aligned to the Class 1E distribution system, re-energize the load group within 2 hours or declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.1.

DISTRIBUTION - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.3.2 As a minimum, the following power distribution system divisions shall be energized:

a. For A.C. power distribution, Division I or Division II with:

1. Division I consisting of:

a) Load group Channel "A", consisting of:

1) 4160 volt A.C. switchgear bus	1A201
2) 480 volt A.C. load center	1B210
3) 480 volt A.C. motor control center	0B516

b) Load group Channel "C", consisting of:

1) 4160 volt A.C. switchgear bus	1A203
2) 480 volt A.C. load center	1B230
3) 480 volt A.C. motor control center	0B536

~~c) Load group 480 volt A.C. motor control centers 0B517, 0B136 1B216, 1B236 1B217, 1B237~~

~~d) Load group 208/120 volt A.C. instrument panels 1Y216, 1Y236~~

e) Isolated 480 volt A.C. swing bus, including: 1B219*

1) Preferred power source
2) Preferred power source MG set
3) Alternate power source
4) Automatic transfer switch

2. Division II consisting of:

a) Load group Channel"B", consisting of:

1) 4160 volt A.C. switchgear bus	1A202
2) 480 volt A.C. load center	1B220
3) 480 volt A.C. motor control center	0B526

b) Load group Channel "D", consisting of:

1) 4160 volt A.C. switchgear bus	1A204
2) 480 volt A.C. load center	1B240
3) 480 volt A.C. motor control center	0B546

~~c) Load group 480 volt A.C. motor control centers 0B527, 0B146 1B226, 1B246 1B227, 1B247~~

~~d) Load group 208/120 volt A.C. instrument panels 1Y226, 1Y246~~

e) Isolated 480 volt A.C. swing bus, including: 1B229**

1) Preferred power source
2) Preferred power source MG set
3) Alternate power source
4) Automatic transfer switch

*The swing bus shall be OPERABLE if the Division I LPCI subsystem alone is fulfilling the requirements of Specification 3.5.2.

**The swing bus shall be OPERABLE if the Division II LPCI subsystem alone is fulfilling the requirements of Specification 3.5.2.

Previous change: Submitted under PLA-2562 as proposed Amendment #74.

SEE INSERT 'A'

SEE INSERT B 3.

INSERT A

NEW CHANGE

and diesel generator E

a. For A.C. power distribution, Division I or Division II with:

1. Division I consisting of:
   a) Load group Channel "A", consisting of:
      1) 4160 volt A.C. switchgear bus — 1A201, 0A510A (NEW CHANGE)
      2) 480 volt A.C. load center — 1B210
      3) 480 volt A.C. motor control centers — 0B516, 0B517, 1B216, 1B217
      4) 208/120-volt A.C. instrument panels — 1Y216
   b) Load group Channel "C", consisting of:
      1) 4160 volt A.C. switchgear bus 1A203 — 1A203, 0A510C (NEW CHANGE)
      2) 480 volt A.C. load center — 1B230
      3) 480 volt A.C. motor control centers — 0B536, 0B136, 1B236, 1B237
      4) 208/120 volt A.C. instrument panels — 1Y236
   c) Isolated 480 volt A.C. swing bus, including: — 1B219*
      1) Preferred power source
      2) Preferred power source MG set
      3) Alternate power source
      4) Automatic transfer switch

2. Division II consisting of:
   a) Load group Channel "B", consisting of:
      1) 4160 volt A.C. switchgear bus — 1A202, 0A510B (NEW CHANGE)
      2) 480 volt A.C. load center — 1B220
      3) 480 volt A.C. motor control centers — 0B526, 0B527, 1B226, 1B227
      4) 208/120-volt A.C. instrument panels — 1Y226
   b) Load group Channel "D", consisting of:
      1) 4160 volt A.C. switchgear bus — 1A204, 0A510D (NEW CHANGE)
      2) 480 volt A.C. load center — 1B240
      3) 480 volt A.C. motor control centers — 0B546, 0B146, 1B246, 1B247
      4) 208/120 volt A.C. instrument panels — 1Y246
   c) Isolated 480 volt A.C. swing bus, including: — 1B229**
      1) Preferred power source
      2) Preferred power source MG set
      3) Alternate power source
      4) Automatic transfer switch

Insert B

3. Diesel Generator E

   a) Load Group, consisting of:

      1) 4160 volt A.C. switchgear bus 0A510E

      2) 480 volt A.C. motor control center 0B565

LIMITING CONDITION FOR OPERATION (Continued)

b. For D.C. power distribution, Division I or Division II, with:

1. Division I consisting of:

a) Load group Channel "A", consisting of:
1) 125 volt DC buses — 1D612, 2D612**, 1D614, 2D614**
2) Fuse box — 1D611, 2D611**

b) Load group Channel "C", consisting of:
1) 125 volt DC buses — 1D632, 2D632**, 1D634, 2D634**
2) Fuse box — 1D631, 2D631**

c) Load group "I", consisting of:
1) 250 volt DC buses — 1D652, 1D254
2) Fuse box — 1D651

d) Load group "I", consisting of:
1) ± 24 volt DC buses — 1D672
2) Fuse box — 1D671

2. Division II consisting of:

a) Load group Channel "B", consisting of:
1) 125 volt DC buses — 1D622, 2D622**, 1D624, 2D624**
2) Fuse box — 1D621, 2D621**

b) Load group Channel "D", consisting of:
1) 125 volt DC buses — 1D642, 2D642**, 1D644, 2D644**
2) Fuse box — 1D641, 2D641**

c) Load group "II", consisting of:
1) 250 volt DC buses — 1D662, 1D264, 1D274
2) Fuse box — 1D661

d) Load group "II", consisting of:
1) ± 24 volt DC buses — 1D682
2) Fuse box — 1D681

SEE INSERT C ← 3

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5 and *.

*When handling irradiated fuel in the secondary containment.
**Not required to be OPERABLE when the requirements of ACTION c have been satisfied.

Insert C

3. Diesel Generator E

a) Load group consisting of:

1) 125 volt D.C. bus OD 597

LIMITING CONDITION FOR OPERATION (Continued)

ACTION:

a. With less than the Division I or Division II load groups of the above required A.C. distribution system energized, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

b. With less than the Division I or Division II load groups of the above required Unit 1 D.C. distribution system energized, suspend CORE ALTERATIONS, handling or irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

c. With less than Division I or Division II of the above required Unit 2 D.C. distribution system energized, either:

1. Suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment, and operations with a potential for draining the reactor vessel, or

2. Transfer the Unit 1 and common loads aligned to the deenergized Unit 2 load group(s) to the corresponding Unit 1 load group(s).

Otherwise, declare the Unit 1 and common loads aligned to the deenergized Unit 2 load group(s) inoperable and take the ACTION required by the applicable Specification(s).

d. With the Unit 1 loads aligned to one or more of the above required Unit 1 125-volt D.C. load group(s) aligned to the corresponding Unit 2 load group(s), realign the Unit 1 loads to the Unit 1 load group(s) within 72 hours after restoring the Unit 1 load group(s) to OPERABLE status; otherwise, declare the Unit 1 loads aligned to the Unit 2 load group(s) inoperable and take the ACTION required by the applicable Specification(s).

e. With one or both of the isolated 480 volt A.C. swing busses inoperable, declare the asscociated LPCI loop inoperable (see Specification 3.5.2).

f. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.3.2.1 At least the above required power distribution system divisions shall be determined energized at least once per 7 days by verifying correct breaker alignment and voltage on the busses/MCCs/panels.

4.8.3.2.2 The isolated 480-volt A.C. swing bus automatic transfer switch shall be demonstrated OPERABLE at least once per 31 days by actuating the load test switch or by disconnecting the preferred power source to the transfer switch and verifying that swing bus automatic transfer is accomplished.

Insert D

g. With the above required diesel generator E A.C. distribution system load group not energized and diesel generator E aligned to the Class 1E distribution system, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

h. With the above required diesel generator E 125 volt D.C. distribution system load group not energized and diesel generator E not aligned to the Class 1E distribution system, re-energize the load group within 2 hours or verify that all ESW valves associated with diesel generator E are closed and diesel generator E is not running within 2 hours. The provisions of Specification 3.0.4 are not applicable.

i. With the above required diesel generator E 125 volt D.C. distribution system load group not energized and diesel generator E aligned to the Class 1E distribution system, re-energize the load group within 2 hours or declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.2.

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION - CONTINUOUS

LIMITING CONDITION FOR OPERATION

3.8.4.2.1 ~~3.8.4.2~~ The thermal overload protection of each valve shown in Table 3.8.4.2.1-1 ~~3.8.4.2-1~~ shall be bypassed continuously by an OPERABLE bypass device integral with the motor starter.

APPLICABILITY: Whenever the motor operated valve is required to be OPERABLE unless otherwise specified.

ACTION:

a. With thermal overload protection for one or more of the above required valves not bypassed continuously by an OPERABLE integral bypass device, take administrative action to continuously bypass the thermal overload within 8 hours or declare the affected valve(s) inoperable and apply the appropriate ACTION statement(s) for the affected system(s).

b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.4.2.1.1 ~~4.8.4.2.1~~ The thermal overload protection for the above required valves shall be verified to be bypassed continuously by an OPERABLE integral bypass device by verifying that the thermal overload protection is bypassed: 29

a. At least once per 18 months, and

b. Following maintenance on the motor starter.

4.8.4.2.1.2 ~~4.8.4.2.2~~ The thermal overload protection shall be verified to be bypassed following activities during which the thermal overload protection was temporarily placed in force. 29

3.8.4.2.1-1

TABLE ~~3.8.4.2-1~~

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION – CONTINUOUS

VALVE NUMBER	SYSTEM(S) AFFECTED
HV-01222A	RHRSW
HV-01222B	RHRSW
HV-01224A1	RHRSW
HV-01224B1	RHRSW
HV-01224A2	RHRSW
HV-01224B2	RHRSW
* HV-01112A	ESW
* HV-01112B	ESW
* HV-01122A	ESW
* HV-01122B	ESW
* HV-01112C	ESW
* HV-01112D	ESW
* HV-01122C	ESW
* HV-01122D	ESW
* HV-01110A	ESW
* HV-01110B	ESW
* HV-01120A	ESW
* HV-01120B	ESW
* HV-01110C	ESW
* HV-01110D	ESW
* HV-01120C	ESW
* HV-01120D	ESW
HV-08693A	ESW
HV-08693B	ESW
HV-01201A1	RHRSW
HV-01201A2	RHRSW
HV-01201B1	RHRSW
HV-01201B2	RHRSW
HV-11210A	RHRSW
HV-11210B	RHRSW
HV-11215A	RHRSW
HV-11215B	RHRSW
HV-15766	Cont. Isol.
HV-15768	Cont. Isol.
HV-12603	Cont. Isol.
HV-11345	Cont. Isol.
HV-11313	Cont. Isol.
HV-11346	Cont. Isol.
HV-11314	Cont. Isol.
HV-E11-1F009	RHR
HV-E11-1F040	RHR
HV-G33-1F001	RWCU
HV-E11-1F103A	RHR
HV-E11-1F075A	RHRSW
HV-E11-1F048A	RHR
HV-E11-1F006C	RHR

* HV-01110E
* HV-01120E
* HV-01112E
* HV-01122E

ESW
ESW
ESW
ESW

* Continuous bypass not required when corresponding diesel generator is not aligned to the Class 1E distribution system

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NUMBER	SYSTEM(S) AFFECTED
HV-E11-1F004C	RHR
HV-E11-1F015A	RHR
HV-E11-1F024A	RHR
HV-E21-1F015A	CS
HV-E41-1F002	HPCI
HV-B21-1F016	NSSS
HV-E11-1F022	RHR
HV-E11-1F010A	RHR
HV-E11-1F011A	RHR
HV-E11-1F004A	RHR
HV-E11-1F006A	RHR
HV-E11-1F027A	RHR
HV-E11-1F007A	RHR
HV-E11-1F104A	RHR
HV-E11-1F026A	RHR
HV-E11-1F028A	RHR
HV-E11-1F047A	RHR
HV-E11-1F073A	RHRSW
HV-E11-1F003A	RHR
HV-E11-1F017A	RHR
HV-E21-1F001A	CS
HV-E21-1F031A	CS
HV-E21-1F004A	CS
HV-E21-1F005A	CS
HV-E11-1F021A	RHR
HV-E11-1F016A	RHR
HV-15112	RHR
HV-E51-1F007	RCIC
HV-E51-1F084	RCIC
HV-E11-1F027B	RHR
HV-E11-1F048B	RHR
HV-E11-1F015B	RHR
HV-E11-1F006B	RHR
HV-E11-1F021B	RHR
HV-E11-1F010B	RHR
HV-E11-1F011B	RHR
HV-E11-1F004B	RHR
HV-E11-1F007B	RHR
HV-E11-1F104B	RHR
HV-E11-1F026B	RHR

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NUMBER	SYSTEM(S) AFFECTED
HV-E11-1F028B	RHR
HV-E11-1F047B	RHR
HV-E11-1F016B	RHR
HV-E11-1F003B	RHR
HV-E11-1F017B	RHR
HV-E21-1F031B	CS
HV-E21-1F001B	CS
HV-E11-1F103B	RHR
HV-E11-1F075B	RHRSW
HV-E11-1F073B	RHRSW
HV-E11-1F006D	RHR
HV-E11-1F004D	RHR
HV-E11-1F024B	RHR
HV-E21-1F015B	CS
HV-E21-1F004B	CS
HV-E21-1F005B	CS
HV-E32-1F001K	MSIV
HV-E32-1F002K	MSIV
HV-E32-1F003K	MSIV
HV-E32-1F001P	MSIV
HV-E32-1F002P	MSIV
HV-E32-1F003P	MSIV
HV-E32-1F001B	MSIV
HV-E32-1F002B	MSIV
HV-E32-1F003B	MSIV
HV-E32-1F001F	MSIV
HV-E32-1F002F	MSIV
HV-E32-1F003F	MSIV
HV-E32-1F006	MSIV
HV-E32-1F007	MSIV
HV-E32-1F008	MSIV
HV-E32-1F009	MSIV
HV-E51-1F045	RCIC
HV-E51-1F012	RCIC
HV-E51-1F013	RCIC
HV-15012	RCIC
HV-E51-1F046	RCIC
HV-E51-1F008	RCIC
HV-E51-1F031	RCIC
HV-E51-1F010	RCIC

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TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NUMBER	SYSTEM(S) AFFECTED
HV-E51-1F019	RCIC
HV-E51-1F060	RCIC
HV-E51-1F059	RCIC
HV-E51-1F022	RCIC
HV-E51-1F062	RCIC
HV-E41-1F012	HPCI
HV-E41-1F001	HPCI
HV-E41-1F011	HPCI
HV-E41-1F006	HPCI
HV-E41-1F079	HPCI
HV-E41-1F059	HPCI
HV-E41-1F004	HPCI
HV-E41-1F003	HPCI
HV-E41-1F042	HPCI
HV-E41-1F075	HPCI
HV-E41-1F008	HPCI
HV-E41-1F007	HPCI
HV-E41-1F066	HPCI
HV-G33-1F004	RWCU
HV-B21-1F019	NSSS
HV-E11-1F008	RHR
HV-E11-1F023	RHR
HV-E11-1F049	RHR
HV-B31-1F032A	RX RECIRC
HV-B31-1F032BB	RX RECIRC
HV-B31-1F031A	RX RECIRC
HV-B31-1F031B	RX RECIRC

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ELECTRICAL POWER SYSTEMS

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION - AUTOMATIC

LIMITING CONDITION FOR OPERATION

3.8.4.2.2 The thermal overload protection of each valve shown in Table 3.8.4.2.2-1 shall be bypassed automatically by an OPERABLE bypass device integral with the motor starter.

APPLICABILITY: When diesel generator E is not aligned to the Class 1E distribution system.

ACTION:

a. With thermal overload protection automatic bypass inoperable for one or more valves listed above, take administrative action to continuously bypass the thermal overload within 8 hours, or verify that all diesel generator E ESW valves are closed and diesel generator E is not running within 8 hours.

b. The provision of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.4.2.2.1 The automatic bypass of thermal overload protection for those valves listed above shall be demonstrated OPERABLE at least once per 18 months.

TABLE 3.8.4.2.2-1

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION - AUTOMATIC

Valve Number	System(s) Affected
HV-01110E	ESW
HV-01120E	ESW
HV-01112E	ESW
HV-01122E	ESW

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1, 3/4.8.2 and 3/4.8.3 A.C. SOURCES, D.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for (1) the safe shutdown of the facility and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least three of the onsite A.C. and the corresponding D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of one other onsite A.C. source. INSERT A

The A.C. and D.C. source allowable out-of-service times are based on Regulatory Guide 1.93, "Availability of Electrical Power Sources," December 1974. When one diesel generator is inoperable, there is an additional ACTION requirement to verify that all required systems, subsystems, trains, components and devices, that depend on the remaining OPERABLE diesel generator as a source of emergency power, are also OPERABLE. This requirement is intended to provide assurance that a loss of offsite power event will not result in a complete loss of safety function of critical systems during the period one of the diesel generators is inoperable. The term verify as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the surveillance requirements needed to demonstrate the OPERABILITY of the component.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that (1) the facility can be maintained in the shutdown or refueling condition for extended time periods and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

The surveillance requirements for demonstrating the OPERABILITY of the diesel generators are in accordance with the recommendations of Regulatory Guide 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies", March 10, 1971, Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants", Revision 1, August 1977 and Regulatory Guide 1.137 "Fuel-Oil Systems for Standby Diesel Generators", Revision 1, October 1979.

INSERT A: The plant configuration consists of four diesel generators - A, B, C & D - and a spare fifth diesel generator - E - which can be substituted for any one of the other four diesel generators

A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

The surveillance requirements for demonstrating the OPERABILITY of the unit batteries are in accordance with the recommendations of Regulatory Guide 1.129, "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants", February 1978, and IEEE Std 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations."

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage onfloat charge, connection resistance values and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates and compares the battery capacity at that time with the rated capacity.

Table 4.8.2.1-1 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and .015 below the manufacturer's full charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than .020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than .010 below the manufacturer's full charge specific gravity, ensures the OPERABILITY and capability of the battery.

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8.2.1-1 is permitted for up to 7 days. During this 7 day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than .020 below the manufacturer's recommended full charge specific gravity, ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity ensures that an individual cell's specific gravity will not be more than .040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Primary containment electrical penetrations and penetration conductors are protected by either de-energizing circuits not required during reactor operation or demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers by periodic surveillance.

The surveillance requirements applicable to lower voltage circuit breakers and fuses provides assurance of breaker and fuse reliability by testing at least one representative sample of each manufacturers brand of circuit breaker and/or fuse. Each manufacturer's molded case and metal case circuit breakers and/or fuses are grouped into representative samples which are than tested on a rotating basis to ensure that all breakers and/or fuses are tested. If a wide variety exists within any manufacturer's brand of circuit breakers and/or fuses, it is necessary to divide that manufacturer's breakers and/or fuses into groups and treat each group as a separate type of breaker or fuses for surveillance purposes.

The bypassing of the motor operated valve thermal overload protection continuously by integral bypass devices ensures that the thermal overload protection will not prevent safety related valves from performing their function. The surveillance requirements for demonstrating the bypassing of the thermal overload protection continuously are in accordance with Regulatory Guide 1.106 "Thermal Overload Protection for Electric Motors on Motor Operated Valves", Revision 1, March 1977.

INSTRUMENTATION

FIRE DETECTION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.7.9 As a minimum, the fire detection instrumentation for each fire detection zone shown in Table 3.3.7.9-1 shall be OPERABLE.

APPLICABILITY: Whenever equipment protected by the fire detection instrument is required to be OPERABLE.

ACTION:

With the number of OPERABLE fire detection instruments less than the Minimum Instruments OPERABLE requirement of Table 3.3.7.9-1:

a. Within 1 hour, establish a fire watch patrol to inspect the zone(s) with the inoperable instrument(s) at least once per hour, unless the instrument(s) is located inside an inaccessible zone, then inspect the area surrounding the inaccessible zone at least once per hour.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.9.1 Each of the above required fire detection instruments which are accessible during unit operation shall be demonstrated OPERABLE at least once per 6 months by performance of a CHANNEL FUNCTIONAL TEST. Fire detectors which are not accessible during unit operation shall be demonstrated OPERABLE by the performance of a CHANNEL FUNCTIONAL TEST during each COLD SHUTDOWN exceeding 24 hours unless performed in the previous 6 months.

4.3.7.9.2 The supervised circuits supervision associated with the detector alarms of each of the above required fire detection instruments shall be demonstrated OPERABLE at least once per 6 months.

TABLE 3.3.7.9-1

FIRE DETECTION INSTRUMENTATION

INSTRUMENT LOCATION			INSTRUMENTS OPERABLE					
			HEAT		IONIZATION		PHOTO-ELECTRIC	
FIRE ZONE	ROOM OR AREA	ELEV.	TOTAL	MIN.	TOTAL	MIN.	TOTAL	MIN.
a. Control Building								
0-22A	Filter Area	687'-8"	NA	NA	11	6	NA	NA
0-24D	Lower Relay Room	698'-1"	4	2	4	2	NA	NA
0-24G	Lower Relay Room	698'-1"	4	2	4	2	NA	NA
0-24G	PGCC	698'-1"	54	27	30	15	NA	NA
0-25A	Lower Cable Spreading Rm.	714'-0"	20	10	6	3	NA	NA
0-25B	South Cable Chase	714'-0"	1	1	NA	NA	NA	NA
0-25C	Center Cable Chase	714'-0"	1	1	NA	NA	NA	NA
0-25D	North Cable Chase	714'-0"	1	1	NA	NA	NA	NA
0-25E	Lower Cable Spreading Rm.	714'-0"	26	13	6	3	NA	NA
0-26B	South Cable Chase	729'-1"	NA	NA	1	1	NA	NA
0-26C	Center Cable Chase	729'-1"	NA	NA	1	1	NA	NA
0-26D	North Cable Chase	729'-1"	NA	NA	1	1	NA	NA
0-26F	Vestibule	729'-1"	NA	NA	1	1	NA	NA
0-26G	Shift Office	729'-1"	NA	NA	1	1	NA	NA
0-26H	Control Rm. (Under Flr. Unit 1)*	729'-1"	NA	NA	18	9	NA	NA
0-26H	Control Room (Under Flr. Unit 2)*	729'-1"	NA	NA	15	8	NA	NA
0-26H	Control Room	729'-1"	NA	NA	10	5	NA	NA
0-26H	Control Rm. (Above Clg)*	729'-1"	NA	NA	6	3	NA	NA
0-26I	Operational Support Center	729'-1"	NA	NA	1	1	NA	NA
0-26J	Vestibule	729'-1"	NA	NA	1	1	NA	NA
0-26M	Soffit	729'-1"	NA	NA	4	2	NA	NA
0-26N	Control Room Soffit	729'-1"	NA	NA	2	1	NA	NA
0-26P	Control Room Soffit	729'-1"	NA	NA	2	1	NA	NA
0-26R	Soffit	729'-1"	NA	NA	4	2	NA	NA
0-26S	South Cable Chase	729'-1"	1	1	NA	NA	NA	NA

TABLE 3.3.7.9-1 (Continued)

FIRE DETECTION INSTRUMENTATION

INSTRUMENT LOCATION			INSTRUMENTS OPERABLE					
			HEAT		IONIZATION		PHOTO-ELECTRIC	
FIRE ZONE	ROOM OR AREA	ELEV.	TOTAL	MIN.	TOTAL	MIN.	TOTAL	MIN.
a. Control Building (Continued)								
0-26T	Center Cable Chase	729'-1"	1	1	NA	NA	NA	NA
0-26V	North Cable Chase	729'-1"	1	1	NA	NA	NA	NA
0-27A	Upper Relay Room	754'-1"	2	1	2	1	NA	NA
0-27A	PGCC	754'-1"	55	28	30	15	NA	NA
0-27B	Upper Cable Spreading Rm.	753'-0"	24	12	5	2	NA	NA
0-27C	Upper Cable Spreading Rm.	753'-0"	25	13	6	3	NA	NA
0-27E	Upper Relay Room	754'-1"	4	2	2	1	NA	NA
0-27F	South Cable Chase	754'-1"	1	1	NA	NA	NA	NA
0-27G	Center Cable Chase	754'-1"	1	1	NA	NA	NA	NA
0-27H	North Cable Chase	754'-1"	1	1	NA	NA	NA	NA
0-28A	Equipment Room	771'-0"	NA	NA	4	2	NA	NA
0-28B	Equipment Room	771'-0"	NA	NA	4	2	NA	NA
0-28C	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28D	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28E	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28F	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28G	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28H	Repair Shop	771'-0"	NA	NA	2	1	NA	NA
0-28I	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28J	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28K	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28L	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28M	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28N	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-28P	South Cable Chase	771'-0"	1	1	NA	NA	NA	NA
0-28Q	Center Cable Chase	771'-0"	1	1	NA	NA	NA	NA
0-28R	North Cable Chase	771'-0"	1	1	NA	NA	NA	NA

TABLE 3.3.7.9-1 (Continued)

FIRE DETECTION INSTRUMENTATION

INSTRUMENT LOCATION			INSTRUMENTS OPERABLE					
			HEAT		IONIZATION		PHOTO-ELECTRIC	
FIRE ZONE	ROOM OR AREA	ELEV.	TOTAL	MIN.	TOTAL	MIN.	TOTAL	MIN.
a. Control Building (Continued)								
0-28T	Battery Room	771'-0"	NA	NA	1	1	NA	NA
0-29B	H&V Equipment Room	783'-0"	NA	NA	10	5	NA	NA
0-30A	HVAC Equipment Room	806'-0"	NA	NA	20	10	NA	NA
b. Reactor Building								
2-1B	Core Spray Pump Room	645'-0"	NA	NA	6	3	NA	NA
2-1A	Core Spray Pump Room	645'-0"	NA	NA	8	4	NA	NA
2-1E	RHR Pump Room	645'-0"	NA	NA	NA	NA	13	7
2-1F	RHR Pump Room	645'-0"	NA	NA	NA	NA	15	8
2-1D	RCIC Pump Room	645'-0"	2	1	NA	NA	5	3
2-1C	HPCI Pump Room	645'-0"	2	1	NA	NA	7	4
2-1G	Sump Room	645'-0"	NA	NA	2	1	NA	NA
2-2B	Core Spray Pump Room	670'-0"	NA	NA	11	6	NA	NA
2-4C	Switchgear Room	719'-0"	NA	NA	2	1	NA	NA
2-4D	Switchgear Room	719'-0"	NA	NA	2	1	NA	NA
2-4A	Containment Access Area	719'-0"	NA	NA	26	13	3	2
2-5F	Load Center Room	749'-1"	NA	NA	2	1	NA	NA
2-5G	Load Center Room	749'-1"	NA	NA	2	1	NA	NA
2-2A	Access Area and Remote Shutdown Panel Room	670'-0"	NA	NA	6	3	NA	NA
2-3A	Access Area	683'-0"	NA	NA	4	2	NA	NA
2-3B	Access Area	683'-0"	NA	NA	14	7	NA	NA
2-3C	Access Area	683'-0"	NA	NA	NA	NA	13	7
2-4B	Pipe Penetration Room	719'-1"	NA	NA	1	1	NA	NA
2-4G	Main Steam Piping	719'-1"	NA	NA	NA	NA	4	2
2-5A	Fuel Pool Pumps and Heat Exchangers	749'-1"	NA	NA	21	11	7	4
2-5B	Valve Access Area	761'-10"	NA	NA	NA	NA	2	1
2-5C	RWCU Backwash Tank	749'-1"	NA	NA	1	1	2	1

TABLE 3.3.7.9-1 (Continued)

FIRE DETECTION INSTRUMENTATION

FIRE ZONE	ROOM OR AREA	ELEV.	INSTRUMENTS OPERABLE: HEAT TOTAL	HEAT MIN.	IONIZATION TOTAL	IONIZATION MIN.	PHOTO-ELECTRIC TOTAL	PHOTO-ELECTRIC MIN.
b.	**Reactor Building (Continued)**							
2-5D	RWCU Pumps & Heat Exchangers	749'-1"	NA	NA	NA	NA	10	5
2-5E	Penetration Room	749'-1"	NA	NA	NA	NA	2	1
2-5H	Instrument Repair Room	749'-1"	NA	NA	2	1	NA	NA
2-6A	Access Area	779'-1"	NA	NA	10	5	NA	NA
2-6B	Load Center Room	779'-1"	NA	NA	4	2	NA	NA
2-6C	Electric Equipment Room	779'-1"	NA	NA	2	1	NA	NA
2-6E	Hatch and Laydown Area	779'-1"	NA	NA	2	1	NA	NA
2-6D	H&V Equipment Room	779'-1"	NA	NA	12	6	NA	NA
0-6G	Surge Tank Vault	779'-4"	NA	NA	2	1	NA	NA
2-7A	H&V Fan and Filter Rooms	799'-1"	24	12	14	7	NA	NA
0-8A	Refueling Floor	818'-1"	NA	NA	NA	NA	59	30
c.	**ESSW Pumphouse**							
0-51	Pump Room	685'-6"	NA	NA	6	3	NA	NA
0-52	Pump Room	685'-6"	NA	NA	6	3	NA	NA

FIRE ZONE	ROOM OR AREA	ELEV.	INFRA-RED (FLAME) TOTAL	INFRA-RED (FLAME) MIN.
d.	**Diesel Generator Building**			
0-41A	Diesel Generator Rooms and	660'-0" 677'-0"	2	1
0-41C	Diesel Generator Rooms and	660'-0" 677'-0"	2	1
0-41B	Diesel Generator Rooms and	660'-0" 677'-0"	2	1
0-41D	Diesel Generator Rooms and	660'-0" 677'-0"	2	1

e.

*Not accessible.

e. Diesel Generator E Building

							IONIZATION TOTAL	IONIZATION MIN
0-41E	Diesel Generator Rooms and	656'-6"	1	1	NA	NA	18	9
	and	695'-6"	NA	NA	6	3	8	2
	and	708'-0"	NA	NA	4	2	NA	NA

PLANT SYSTEMS

SPRAY AND SPRINKLER SYSTEMS

LIMITING CONDITION FOR OPERATION

3.7.6.2 The following spray and sprinkler systems shall be OPERABLE:

a. RCIC Pump Room, Unit 2
b. HPCI Pump Room, Unit 2
c. Upper Cable Spreading Room, Unit 2
d. Lower Cable Spreading Room, Unit 2
e. Diesel Generator A Room
f. Diesel Generator B Room
g. Diesel Generator C Room
h. Diesel Generator D Room
i. Fire Zone 2-3B
j. Fire Zones 2-4A and 2-4B
k. Fire Zone 2-5A
l. Fire Zone 0-29B
m. Fire Zone 0-30A
n. SEE INSERT A

APPLICABILITY: Whenever equipment protected by the spray and/or sprinkler systems is required to be OPERABLE.

ACTION:

a. With one or more of the above required spray and/or sprinkler systems inoperable, within 1 hour establish a continuous fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged; for other areas, establish an hourly fire watch patrol.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

INSERT A: n. Diesel Generator E. Building, Fire Zone 0-41E.

SURVEILLANCE REQUIREMENTS

4.7.6.2 Each of the above required spray and sprinkler systems shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve, manual, power operated or automatic, in the flow path is in its correct position.

b. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.

c. At least once per 18 months:

1. By performing a system functional test which includes simulated automatic actuation of the system, and:

a) Verifying that the automatic valves in the flow path actuate to their correct positions on a test signal, and

b) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.

2. By a visual inspection of the dry pipe spray and sprinkler headers to verify their integrity, and

3. By a visual inspection of each deluge nozzle's spray area to verify that the spray pattern is not obstructed.

d. At least once per 3 years by performing an air or water flow test through each open head spray and sprinkler header and verifying each open head spray and sprinkler nozzle is unobstructed.

FIRE HOSE STATIONS

LIMITING CONDITION FOR OPERATION

3.7.6.5 The fire hose stations shown in Table 3.7.6.5-1 shall be OPERABLE.

APPLICABILITY: Whenever equipment in the areas protected by the fire hose stations is required to be OPERABLE.

ACTION:

a. With one or more of the fire hose stations shown in Table 3.7.6.5-1 inoperable, route an additional fire hose of equal or greater diameter to the unprotected area(s) from an OPERABLE hose station within 1 hour if the inoperable fire hose is the primary means of fire suppression; otherwise, route the additional hose within 24 hours.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.6.5 Each of the fire hose stations shown in Table 3.7.6.5-1 shall be demonstrated OPERABLE:

a. At least once per 31 days by a visual inspection of the fire hose stations accessible during plant operation to assure all required equipment is at the station.

b. At least once per 18 months by:

1. Visual inspection of the fire hose stations not accessible during plant operation to assure all required equipment is at the station.

2. Removing the hose for inspection and re-racking for all fire hose stations, and

3. Inspecting all gaskets and replacing any degraded gaskets in the couplings for all fire hose stations.

c. At least once per 3 years by:

1. Partially opening each hose station valve to verify valve OPERABILITY and no flow blockage.

2. Conducting a hose hydrostatic test at a pressure of 150 psig or at least 50 psig above the maximum fire main operating pressure, whichever is greater.

TABLE 3.7.6.5-1

FIRE HOSE STATIONS

LOCATIONS	COLUMN	HOSE RACK NUMBER
a. Control Structure		
El. 697'-0"	L-26	1HR-171
El. 697'-0"	L-32	2HR-171
El. 714'-0"	L-26	1HR-162
El. 714'-0"	L-31	2HR-162
El. 729'-0"	L-25.9	1HR-158
El. 729'-0"	L-32.1	2HR-158
El. 754'-0"	L-26	1HR-136
El. 754'-0"	L-32	2HR-136
El. 771'-0"	L-26	1HR-125
El. 771'-0"	L-31	2HR-125
b. Reactor Building		
El. 645'-0"	R-37.4	2HR-271
El. 645'-0"	U-30.5	2HR-272
El. 645'-0"	R-30	2HR-273
El. 670'-0"	Q-36	2HR-261
El. 670'-0"	P-30.3	2HR-262
El. 670'-0"	S-29	2HR-263
El. 683'-0"	Q-36	2HR-251
El. 683'-0"	Q-29	2HR-252
El. 683'-0"	Y-29	2HR-253
El. 719'-1"	Q-36	2HR-241
El. 719'-1"	S-36	2HR-242
El. 719'-1"	Q-29	2HR-243
El. 719'-1"	T-29	2HR-244
El. 719'-1"	S-30.5	2HR-245
El. 749'-1"	S-36	2HR-231
El. 749'-1"	Q-30.5	2HR-232
El. 749'-1"	T-29	2HR-233
EL. 779'-1"	Q-36	2HR-221
EL. 779'-1"	S-34.5	2HR-222
EL. 779'-1"	Q-31.5	2HR-223
EL. 779'-1"	U-29	2HR-224
EL. 779'-1"	T-33	2HR-211
EL. 818'-1"	R-33	2HR-201
EL. 818'-1"	U-33	2HR-202
c. Diesel Generator E Building		
EL. 656' 6"	NEAR North Stairwell	OHR-811
EL. 656' 6"	NEAR South Stairwell	OHR-812
EL. 676' 6"	NEAR North Stairwell	OHR-821
EL. 676' 6"	NEAR South Stairwell	OHR-822
EL. 708' 0"	NEAR North Stairwell	OHR-831
EL. 708' 0"	NEAR South Stairwell	OHR-832

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

A.C. SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and

b. Four (of the five) separate and independent diesel generators*, each with:

1. Separate engine mounted day fuel tanks containing a minimum of 325 gallons of fuel,

2. A separate fuel storage system containing a minimum of 47,570 gallons of fuel (for diesel generators A, B, C & D; and 60,480 gallons for diesel generator E), ~~and~~

3. A separate fuel transfer pump.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:#

a. With either one offsite circuit or one diesel generator of the above required A.C. electrical power sources inoperable, (for any reason other than aligning diesel generator E to the Class 1E distribution system,) demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a within 1 hour and 4.8.1.1.2.a.4, for one diesel generator at a time, within 4 hours and at least once per 8 hours thereafter; restore at least two offsite circuits and four diesel generators to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a within 1 hour and 4.8.1.1.2.a.4, for one diesel generator at a time, within 3 hours and at least once per 8 hours thereafter; restore at least one of the inoperable A.C. sources to OPERABLE status within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore at least two offsite circuits and four diesel generators to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

*Shared with Unit 1.

#Prior to but within 24 hours of removing any diesel generator from service in order to do work associated with tying in the additional diesel generator, Surveillance Requirement 4.8.1.1.2.a.4 shall be performed on the diesel generators which are to remain in service.

When any diesel generator is removed from service in order to do work associated with tying in the additional diesel generator, the ACTIONS shall read as follows:

a. With one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a within one hour and 4.8.1.1.2.a.4, within 72 hours and at least once per 72 hours thereafter; restore at least four diesel generators to OPERABLE status within 60 days of accumulated tie-in outage time for all four diesels or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. The provisions of Specification 3.0.4 are not applicable.

b. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a within one hour and 4.8.1.1.2.a.4, within 24 hours and at least once per 72 hours thereafter; restore at least two offsite circuits to OPERABLE status within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. With the two offsite circuits restored to OPERABLE status, follow ACTION a.

c. With one diesel generator of the above required A.C. electrical power sources inoperable, in addition to ACTION a or b, above, verify within 2 hours that all required systems, subsystems, trains, components and devices that depend on the remaining diesel generators as a source of emergency power are also OPERABLE except as noted in Specification 3.7.1.2; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

d. With two of the above required offsite circuits inoperable, demonstrate the OPERABILITY of four diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4, for one diesel generator at a time, within four hours and at least once per 8 hours thereafter, unless the diesel generators are already operating; restore at least one of the inoperable offsite circuits to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours. With only one offsite circuit restored to OPERABLE status, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

e. With two or more of the above required diesel generators inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and 4.8.1.1.2.a.4, for one diesel generator at a time, within 2 hours; restore at least three of the diesel generators to OPERABLE status within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. With three diesel generators restored to OPERABLE status, follow ACTION a.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued) (for any reason other than aligning diesel generator E to the Class 1E distribution system)

c. With one diesel generator of the above required A.C. electrical power sources inoperable, in addition to ACTION a or b, above, verify within 2 hours that all required systems, subsystems, trains, components and devices that depend on the remaining diesel generators as a source of emergency power are also OPERABLE; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

d. With two of the above required offsite circuits inoperable, demonstrate the OPERABILITY of four diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4, for one diesel generator at a time, within four hours and at least once per 8 hours thereafter, unless the diesel generators are already operating; restore at least one of the inoperable offsite circuits to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours. With only one offsite circuit restored to OPERABLE status, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

e. With two or more of the above required diesel generators inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and 4.8.1.1.2.a.4, for one diesel generator at a time, within 2 hours, and at least once per 8 hours thereafter; restore at least three of the diesel generators to OPERABLE status within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore four diesel generators to OPERABLE status within 72 hours from time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability, and

b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring, manually and automatically, unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each of the above required diesel generators shall be demonstrated OPERABLE:

a. In accordance with the frequency specified in Table 4.8.1.1.2-1 on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the engine-mounted day fuel tank.

2. Verifying the fuel level in the fuel storage tank.

3. Verifying the fuel transfer pump starts and transfers fuel from the storage system to the engine-mounted day fuel tank.

4. Verifying the diesel starts from ambient condition and accelerates to at least 600 rpm in less than or equal to 10 seconds. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal. The diesel generator shall be started for this test by using one of the following signals:

a) Manual.
b) Simulated loss of offsite power by itself.
c) Simulated loss of offsite power in conjunction with an ESF actuation test signal.
d) An ESF actuation test signal by itself.

5. Verifying the diesel generator is synchronized, loaded to greater than or equal to 4000 kw in less than or equal to 90 seconds, and operates with this load for at least 60 minutes.

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

7. Verifying the pressure in all diesel generator air start receivers to be greater than or equal to 240 psig.

b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the engine-mounted day fuel tanks.

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 92 days and from new fuel oil prior to addition to the storage tanks by verifying that a sample obtained in accordance with ASTM-D270-1975 has a water and sediment content of less than or equal to 0.05 volume percent and a kinematic viscosity @ 40°C of greater than or equal to 1.3 but less than or equal to 2.4 for 1D oil or $\geq$1.9 but $\leq$4.1 for 2D oil when tested in accordance with ASTM-D975-77, and an impurity level of less than 2 mg of insolubles per 100 mL when tested in accordance with ASTM-D2274-70.

d. At least once per 18 months by:

1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.

2. Verifying the diesel generator capability to reject a load of greater than or equal to 1425 kW while maintaining voltage at 4160 ± 400 volts and frequency at 60 ± 3.0 Hz.

3. Verifying the diesel generator capability to reject a load of 4000 kW without tripping. The generator voltage shall not exceed 4560 volts during and following the load rejection.

4. Simulating a loss-of-offsite power by itself, and:

   a) Verifying deenergization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test.

5. Verifying that on an ECCS actuation test signal, without loss-of-offsite power, the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0. Hz within 10 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

SURVEILLANCE REQUIREMENTS (Continued)

6. Simulating a loss-of-offsite power in conjunction with an ECCS actuation test signal, and:

   a) Verifying deenergization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel generator starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected loads through the load timers and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test.

   c) Verifying that all automatic diesel generator trips, except engine overspeed, generator differential and engine low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal.

7. Verifying the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 4700 kw and during the remaining 22 hours of this test, the diesel generator shall be loaded to 4000 kW. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test. Within 5 minutes after completing this 24-hour test, perform Surveillance Requirement 4.8.1.1.2.d.4.b).*

8. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000-hour rating of 4700 kW for diesel generators A, B, C & D and the continuous rating of 3000 kW for diesel generator E.

9. Verifying the diesel generator's capability to:

   a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

   b) Transfer its loads to the offsite power source, and

   c) Be restored to its standby status.

*If Surveillance Requirement 4.8.1.1.2.d.4.b) is not satisfactorily completed, it is not necessary to repeat the preceding 24-hour test. Rather, the diesel generator may be operated at 4000 kW for 1 hour or until operating temperature has stabilized.

SURVEILLANCE REQUIREMENTS (Continued)

10. Verifying that with the diesel generator operating in a test mode and connected to its bus, a simulated ECCS actuation signal overrides the test mode by (1) returning the diesel generator to standby operation, and (2) automatically energizes the emergency loads with offsite power.

~~11. Verifying that the fuel transfer pump transfers fuel from each fuel storage tank to the engine-mounted day tank of each diesel via the installed cross connection lines.~~

11. ~~12.~~ Verifying that each diesel generator loading sequence timer shown in Table 4.8.1.1.2-2 is OPERABLE with its setpoint within ± 10% of its design setpoint.

12. ~~13.~~ Verifying that the following diesel generator lockout features prevent diesel generator starting and/or operation only when required:

a) Engine overspeed.

b) Generator differential.

c) Engine low lube oil pressure.

e. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting all diesel generators simultaneously, during shutdown, and verifying that all diesel generators accelerate to at least 600 rpm in less than or equal to 10 seconds.

f. At least once per 10 years by:

1. Draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank using a sodium hypochlorite or equivalent solution, and

2. Performing a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with ASME Code Section XI Article IWD-5000.

SEE INSERT A ← 4.8.1.1.3 4.8.1.1.4

~~4.8.1.1.3~~ Reports - All diesel generator failures, valid or nonvalid, shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2 within 30 days. Reports of diesel generator failures shall include the information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977. If the number of failures in the last 100 valid tests, on a per nuclear unit basis, is greater than or equal to 7, the report shall be supplemented to include the additional information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977.

of the required diesel generators

TABLE 4.8.1.1.2-1

DIESEL GENERATOR TEST SCHEDULE

Number of Failures in Last 100 Valid Tests* (#)	Test Frequency
≤ 1	At least once per 31 days
2	At least once per 14 days
3	At least once per 7 days
≥ 4	At least once per 3 days

*Criteria for determining number of failures and number of valid tests shall be in accordance with Regulatory Position C.2.e of Regulatory Guide 1.108, Revision 1, August 1977, where the last 100 tests are determined on a per nuclear unit basis. For the purposes of this test schedule, only valid tests conducted after the OL issuance date shall be included in the computation of the "last 100 valid tests." Entry into this test schedule shall be made at the 31 day test frequency.

(#) When diesel generator E is not aligned to the Class 1E distribution system, any failures will not be credited to the total failures for determining the test frequency of the diesel generators required to be OPERABLE

TABLE 4.8.1.1.2-2

UNIT 1 AND UNIT 2

DIESEL GENERATOR LOADING TIMERS

DEVICE TAG NO.	SYSTEM	LOCATION	TIME SETTING
62A-20102	RHR Pump 1A	1A201	3 sec
62A-20202	RHR Pump 1B	1A202	3 sec
62A-20302	RHR Pump 1C	1A203	3 sec
62A-20402	RHR Pump 1D	1A204	3 sec
62A-20102	RHR Pump 2A	2A201	3 sec
62A-20202	RHR Pump 2B	2A202	3 sec
62A-20302	RHR Pump 2C	2A203	3 sec
62A-20402	RHR Pump 2D	2A204	3 sec
K116A	CS pp 1A	1C626	10.5 sec
K116B	CS pp 1B	1C627	10.5 sec
K125A	CS pp 1C	1C626	10.5 sec
K125B	CS pp 1D	1C627	10.5 sec
K116A	CS pp 2A	2C626	10.5 sec
K116B	CS pp 2B	2C627	10.5 sec
K125A	CS pp 2C	2C626	10.5 sec
K125B	CS pp 2D	2C627	10.5 sec
62AX2-20108	Emergency Service Water (ESW)	1A201	40 sec
62AX2-20208	Emergency Service Water (ESW)	1A202	40 sec
62AX2-20303	Emergency Service Water (ESW)	1A203	44 sec
62AX2-20403	Emergency Service Water (ESW)	1A204	48 sec
62X3-20304	Control Structure Chilled Water System	0C877A	60 sec
62X3-20404	Control Structure Chilled Water System	0C877B	60 sec
62X-20104	Emergency Switchgear Rm Cooler A & RHR SW pp H&V Fan A	0C877A	60 sec

TABLE 4.8.1.1.2-2 (Continued)

UNIT 1 AND UNIT 2

DIESEL GENERATOR LOADING TIMERS

DEVICE TAG NO.	SYSTEM	LOCATION	TIME SETTING
62X-20204	Emergency Switchgear Rm Cooler B & RHR SW pp H&V Fan B	0C877B	60 sec
262X-20104	Emergency Switchgear Rm Cooler A	0C877A	120 sec
262X-20204	Emergency Switchgear Rm Cooler B	0C877B	120 sec
* 62X-516	DG Rm Exh Fan A	0B516	2 min
* 62X-526	DG Rm Exh Fan B	0B526	2 min
* 62X-536	DG Rm Exh Fan C	0B536	2 min
* 62X-546	DG Rm Exh Fan D	0B546	2 min
62X1-20304	Control Structure Chilled Water System	0C877A	3 min
62X1-20404	Control Structure Chilled Water System	0C877B	3 min
62X2-20310	Control Structure Chilled Water System	0C876A	3 min
62X2-20410	Control Structure Chilled Water System	0C876B	3 min
62X2-20304	Control Structure Chilled Water System	0C877A	3.5 min
62X2-20404	Control Structure Chilled Water System	0C877B	3.5 min
62X-K11AB	Emergency Switchgear Rm Cooling Compressor A	2CB250A	260 sec
62X-K11BB	Emergency Switchgear Rm Cooling Compressor B	2CB250B	260 sec

INSERT A

* CRX-5652A	DG Room Supply Fan E1	0B565	2 min
* CRX-5652A	DG Room Supply Fan E2	0B565	2 min.
* 62X-5653A	DG Room Exhaust Fan E3	0B565	3 min **
* 62X-56552A	DG Room Exhaust Fan E4	0B565	3 min ***

* When associated diesel generator is declared OPERABLE

** Starts 1 min after E2 starts

*** Starts 1 min after E1 starts

INSERT A

4.8.1.1.3 When substituting diesel generator E for diesel generator A,B,C or D, diesel generator E shall be demonstrated OPERABLE by:

a. Verifying diesel generator E energizes the appropriate emergency bus.

b. Verifying that at least once within the previous 31 days the following have been verified:

1. The fuel level in the engine-mounted day fuel tank.

2. The fuel level in the fuel storage tank.

3. The fuel transfer pump started and transferred fuel from the storage system to the engine-mounted day fuel tank.

4. The diesel manually started from ambient condition and accelerates to at least 600 rpm in less than or equal to 10 seconds. The generator voltage and frequency were 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal.

5. The diesel generator was synchronized, loaded to greater than or equal to 4000 kw in less than or equal to 90 seconds, and operated with this load for at least 60 minutes.

6. The pressure in the diesel generator air start receivers to be greater than or equal to 240 psig.

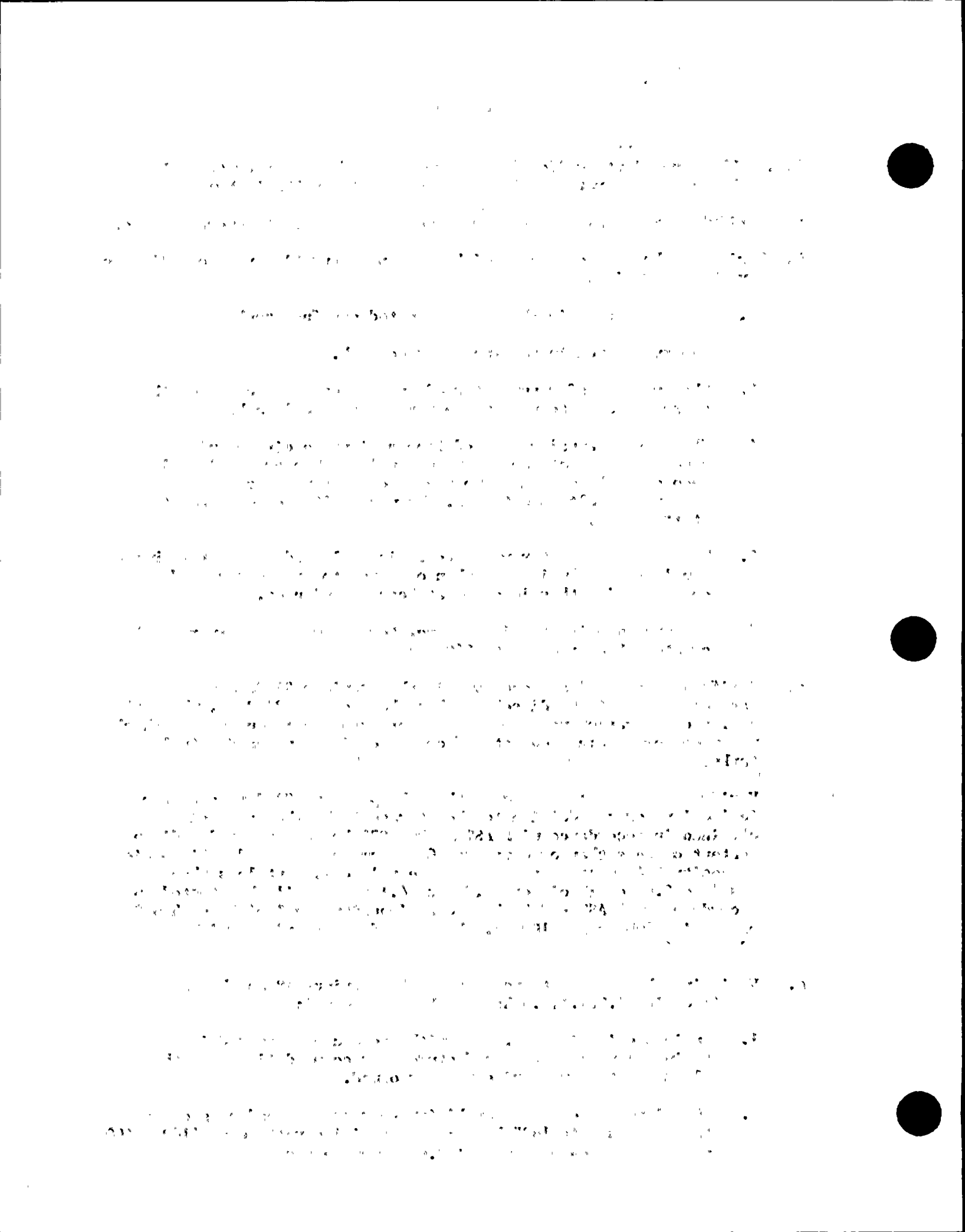
c. Verifying that at least once within the previous 31 days and after each operation of the diesel, within the previous 31 days, where the period of operation was greater than or equal to 1 hour that a check was made for accumulated water from the engine-mounted day fuel tanks.

d. Verifying that at least once within the previous 92 days and from new fuel oil prior to addition to the storage tanks that a sample obtained in accordance with ASTM-D270-1975 has a water and sediment content of less than or equal to .05 volume percent and a kinematic viscosity @ 40°C of greater than or equal to 1.3 but less than or equal to 2.4 for 1D oil or 1.9 but 4.1 for 2D oil when tested in accordance with ASTM-D975-77, and an impurity level of less than 2 mg. of insolubles per 100 ml. when tested in accordance with ASTM-D2274-70.

e. Verifying that at least once within the previous 18 months if specification 4.8.1.1.2.d has not been performed:

1. An inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service was performed.

2. The diesel generators capability to reject a load of greater than or equal to 1425 kw while maintaining voltage at 4160 ± 400 volts and frequency at 60 ± 3.0 Hz was tested.



3. The diesel generators capability to reject a load of 4000 kw without tripping. The generator voltage shall not exceed 4360 volts during and following the load rejection was tested.

4. The diesel generator operated for at least 24 hours. During the first 2 hours of this test, the diesel generator was loaded to greater than or equal to 4700 kW and during the remaining 22 hours of this test, the diesel generator was be loaded to 4000 kW. The generator voltage and frequency shall be 4160 ± 400 volts and 60 ± 3.0 Hz within 10 seconds after the start signal; the steady state generator voltage and frequency were maintained within these limits during this test.

5. The following diesel generator lockout features prevented diesel generator starting and/or operation only when required:

   a) Engine overspeed.
   b) Generator differential.
   c) Engine low lube oil pressure.

6. Either:

   a) That on a rotational basis, diesel generator E was substituted for diesel generator A, B, C, or D and a loss-of-offsite power was simulated in conjunction with an ECCS actuation test signal and:

      i) Diesel generator E started on the auto start signal, energized the emergency busses with permanently connected loads within 10 seconds, energized the auto-connected loads through the load timers and operated for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses were maintained at 4160 ± 400 volts and 60 ± 30 Hz during this test, and

      ii) With the diesel generator operating in a test mode and connected to its bus, a simulated ECCS actuation signal overrode the test mode by (1) returning the diesel generator to standby operation, and (2) automatically energizes the emergency loads with off-site power; or

   b) That by simulating a loss-of-offsite power in conjunction with an ECCS actuation test signal and:

      i) Diesel generator E started on the auto start signal, energized the simulated emergency bus with simulated permanently connected loads within 10 seconds, energized the simulated auto-connected loads and operated for greater than or equal to 5 minutes while

its generator is loaded with the simulated emergency loads. After energization, the steady state voltage and frequency of the emergency busses were maintained at 4160 ± 400 volts and 60 ± 3.0 Hz during this test, and

ii) On a rotational basis, diesel generator E was substituted for diesel generator A, B, C, or D and verify that diesel generator E energized the appropriate emergency bus.

e. Verifying that once per 10 years if Specification 4.8.1.1.2f has not been performed:

1. The fuel oil storage tank has been drained, removing the accumulated sediment and cleaned using a sodium hypochlorite or equivalent solution, and

2. A pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with ASME Code Section II Article IWD-5000 has been performed.

ELECTRICAL POWER SYSTEMS

A.C. SOURCES - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

b. Two diesel generators (each) with:

(of the five seperate and independent)

1. An engine mounted day fuel tank containing a minimum of 325 gallons of fuel (for diesel generators A, B, C and D; and 60,480 gallons of fuel for diesel generator E,)

2. A fuel storage system containing a minimum of 47,570 gallons of fuel.

3. A fuel transfer pump.

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5 and *.

ACTION:

a. With less than the above required A.C. electrical power sources OPERABLE, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment, operations with a potential for draining the reactor vessel and crane operations over the spent fuel pool when fuel assemblies are stored therein. In addition, when in OPERATIONAL CONDITION 5 with the water level less than 22 feet above the reactor pressure vessel flange, immediately initiate corrective action to restore the required power sources to OPERABLE status as soon as practical.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.1.2 At least the above required A.C. electrical power sources shall be demonstrated OPERABLE per Surveillance Requirements 4.8.1.1.1, 4.8.1.1.2 and ~~4.8.1.1.3~~ 4.8.1.1.4, except for the requirement of 4.8.1.1.2.a.5.

*When handling irradiated fuel in the secondary containment.

ELECTRICAL POWER SYSTEMS

3/4.8.2 D.C. SOURCES

D.C. SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.2.1 As a minimum, the following D.C. electrical power sources shall be OPERABLE:

a. Division I, consisting of:

1. Load group Channel "A" power source consisting of:
   a) 125-volt D.C. battery bank — 1D610*, 2D610
   b) Full capacity charger — 1D613*, 2D613

2. Load group Channel "C" power source consisting of:
   a) 125-volt D.C. battery bank — 1D630*, 2D630
   b) Full capacity charger — 1D633*, 2D633

3. Load group "I" power source consisting of:
   a) 250-volt D.C. battery — 2D650
   b) Half-capacity chargers — 2D653A, 2D653B

4. Load group "I" power source consisting of:
   a) ± 24-volt D.C. battery bank — 2D670
   b) Two half-capacity chargers — 2D673, 2D674

b. Division II, consisting of:

1. Load group Channel "B" power source consisting of:
   a) 125-volt D.C. battery bank — 1D620*, 2D620
   b) Full capacity charger — 1D623*, 2D623

2. Load group Channel "D" power source consisting of:
   a) 125-volt D.C. battery bank — 1D640*, 2D640
   b) Full capacity charger — 1D643*, 2D643

3. Load group "II" power source consisting of:
   a) 250-volt D.C. battery bank — 2D660
   b) Full capacity charger — 2D663

4. Load group "II" power source consisting of:
   a) ± 24-volt D.C. battery bank — 2D680
   b) Two half-capacity chargers — 2D683, 2D684

SEE INSERT A ← c.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3

ACTION:

a. With one of the above required Unit 2 125-volt or 250-volt D.C. load group battery banks inoperable, restore the inoperable battery bank to OPERABLE status within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

*Not required to be OPERABLE when the requirements of ACTION b have been satisfied.

Insert A

c. Diesel Generator E

1. Load group power source, consisting of:

a) 125 volt DC battery bank OD595

b) Full capacity charger OD596

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

b. With one or more of the above required Unit 1 125-volt D.C. load group battery banks inoperable, within 2 hours either:

1. Restore the inoperable battery bank(s) to OPERABLE status, or
2. Transfer the common loads aligned to the inoperable Unit 1 battery bank(s) to the corresponding Unit 2 battery bank(s).

Otherwise, declare the common loads aligned to the inoperable Unit 1 battery bank(s) inoperable and take the ACTION required by the applicable Specification(s).

c. With one of the above required ± 24-volt D.C. load group battery banks inoperable, declare the associated equipment inoperable and take the ACTION required by the applicable Specification(s).

Division I or Division II

d. With one of the above required chargers inoperable, demonstrate the OPERABILITY of its associated battery bank by performing Surveillance Requirement 4.8.2.1a.1. within 1 hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare the battery inoperable.

SEE INSERT B ← e, f, g, h.

SURVEILLANCE REQUIREMENTS

4.8.2.1 Each of the above required ± 24-volt, 125-volt, and 250-volt batteries and chargers shall be demonstrated OPERABLE:

a. At least once per 7 days by verifying that:

1. The parameters in Table 4.8.2.1-1 meet the Category A limits, and
2. There is correct breaker alignment to the battery chargers, and total battery terminal voltage is greater than or equal to 26, 129, 258 volts on float charge.

b. At least once per 92 days and within 7 days after a battery discharge with battery terminal voltage below 22, 110, or 220 volts, as applicable, or battery overcharge with battery terminal voltage above 30, 150 or 300 volts, as applicable, by verifying that:

1. The parameters in Table 4.8.2.1-1 meet the Category B limits,
2. There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is less than 150×10^{-6} ohm, and
3. The average electrolyte temperature of 4, 10, or 20, as applicable, of connected cells for the 24, 125, and 250 volt batteries is above 60°F.

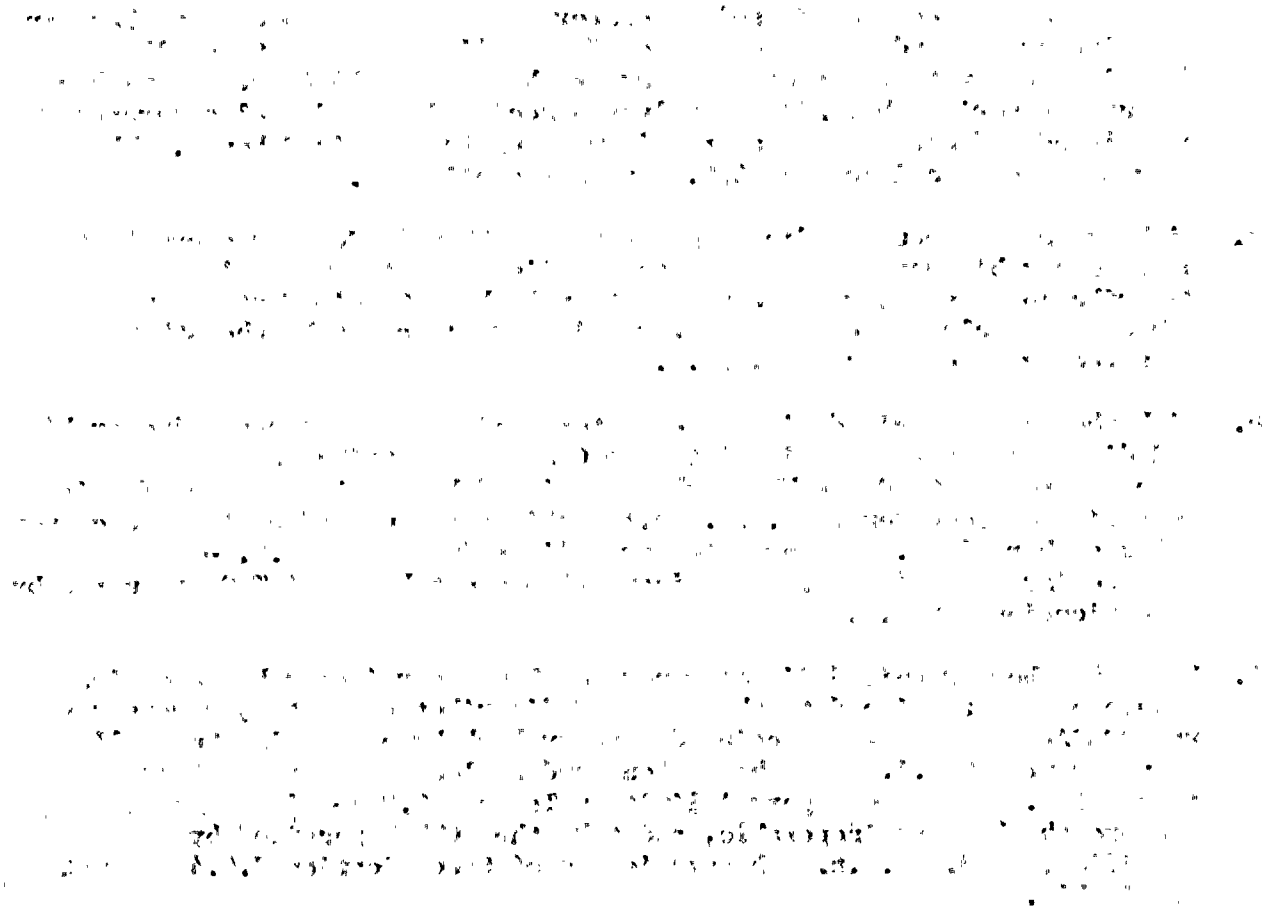
Insert B

e
~~f~~. With the above required diesel generator E 125 volt DC load group battery bank inoperable and diesel generator E not aligned to the Class 1E distribution system, restore the battery bank to OPERABLE status within 2 hours or verify that all ESW valves associated with diesel generator E are closed and diesel generator E is not running within 2 hours. The provisions of Specification 3.0.4 are not applicable.

f
~~g~~. With the above required diesel generator E 125 volt DC load group battery bank inoperable and diesel generator E aligned to the Class 1E distribution system, restore the battery bank to OPERABLE status within 2 hours or declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.1.

g
~~h~~. With the above required diesel generator E 125 volt DC charger inoperable and diesel generator E aligned to the Class 1E distribution system, demonstrate the OPERABILITY of the associated battery bank by performing Surveillance Requirement 4.8.2.1.a.1 within one hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.1.

h
~~i~~. With the above required diesel generator E charger inoperable and diesel generator E not aligned to the Class 1E distribution system, demonstrate the OPERABILITY of its associated battery bank by performing Surveillance Requirement 4.8.2.1.a.1 within 1 hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare the battery inoperable, and take the ACTION required by specification 3.8.2.1.~~f~~. The provisions of Specification 3.0.4 are not applicable.



SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months by verifying that:

1. The cells, cell plates, and battery racks show no visual indication of physical damage or abnormal deterioration,

2. The cell-to-cell and terminal connections are clean, tight, free of corrosion, and coated with anticorrosion material,

3. The resistance of each cell-to-cell and terminal connection of each 125-volt and 250-volt battery is less than or equal to 150 x 10^{-6} ohm, and

4. The battery charger, for at least 4 hours, will supply at least:

a) For the ± 24-volt batteries, 25 amperes at a minimum of 25.7 volts.

b) For the 125-volt batteries, 100 amperes at a minimum of 127.8 volts.

c) For the 250-volt batteries, 300 amperes at a minimum of 255.6 volts.

d) For the 125 volt diesel generator E batteries, 200 amperes at a minimum of 127.8 volts.

d. At least once per 18 months by verifying that either:

1. The battery capacity is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for the design duty cycle when the battery is subjected to a battery service test, or

2. The battery capacity is adequate to supply a dummy load of the following profile, which is verified to be greater than the actual emergency loads, while maintaining the battery terminal voltage greater than or equal to ± 21, 105 or 210 volts, as applicable.

a) For ± 24-volt battery banks 2D670, 2D670-1, 2D680, and 2D680-1, 9.37 amperes for the entire 4-hour test.

b) For 125-volt batteries:

1) Channel "A" battery 1D612: 325 amperes for 60 seconds
107 amperes for the remainder of the 4 hour test

2) Channel "B" battery 1D622: 323 amperes for 60 seconds
105 amperes for the remainder of the 4 hour test

3) Channel "C" battery 1D632: 340 amperes for 60 seconds
121 amperes for the remainder of the 4 hour test

4) Channel "D" battery 1D642: 323 amperes for 60 seconds
104 amperes for the remainder of the 4 hour test.

5) Channel "A" battery 2D612: 328 amperes for 60 seconds
112 amperes for the remainder of the 4 hour test

6) Channel "B" battery 2D622: 326 amperes for 60 seconds
110 amperes for the remainder of the 4 hour test

7) Channel "C" battery 2D632: 343 amperes for 60 seconds
128 ampers for the remainder of the 4 hour test

8) Channel "D" battery 2D642: 326 amperes for 60 seconds
111 amperes for the remainder of the 4 hour test

9) Channel "H" battery OD595:
286 amperes for the first 60 seconds
95 amperes for the next 238 minutes
155 amperes for the last minute of the 4 hour test.

SURVEILLANCE REQUIREMENTS (Continued)

c) For 250-volt batteries:

1) Battery bank 2D650:
458 amperes for 60 seconds
251 amperes for 239 minutes

2) Battery bank 2D660:
1119 amperes for 60 seconds
244 amperes for 239 minutes

e. At least once per 60 months by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. Once per 60-month interval, this performance discharge test may be performed in lieu of the battery service test.

f. Annual performance discharge tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

TABLE 4.8.2.1-1

BATTERY SURVEILLANCE REQUIREMENTS

Parameter	CATEGORY A(1)	CATEGORY B(2)	
	Limits for each designated pilot cell	Limits for each connected cell	Allowable(3) value for each connected cell
Electrolyte Level	>Minimum level indication mark, and ≤ ¼" above maximum level indication mark	>Minimum level indication mark, and ≤ ¼" above maximum level indication mark	Above top of plates, and not overflowing
Float Voltage	≥ 2.13 volts	≥ 2.13 volts(c)	> 2.07 volts
Specific Gravity(a)	≥ 1.200(b)	≥ 1.195(b) Average of all connected cells > 1.205(b)	Not more than 0.020 below the average of all connected cells Average of all connected cells ≥ 1.195(b)

(a) Corrected for electrolyte temperature and level.

(b) Or battery charging current is less than 0.01, 0.1 and 0.25 amperes for the ±24, 125 and 250 volt batteries respectively, when on float charge.

(c) May be corrected for average electrolyte temperature.

(1) For any Category A parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that within 24 hours all the Category B measurements are taken and found to be within their allowable values, and provided all Category A and B parameter(s) are restored to within limits within the next 6 days.

(2) For any Category B parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that the Category B parameters are within their allowable values and provided the Category B parameter(s) are restored to within limits within 7 days.

(3) Any Category B parameter not within its allowable value indicates an inoperable battery.

ELECTRICAL POWER SYSTEMS

D.C. SOURCES - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.2.2 As a minimum, Division I or Division II of the D.C. electrical power sources and diesel generator E shall be OPERABLE with:

a. Division I consisting of:

1. Load group Channel "A" power source, consisting of:
   a) 125-volt D.C. battery bank — 1D610**, 2D610
   b) Full capacity charger — 1D613**, 2D613

2. Load group Channel "C" power source, consisting of:
   a) 125-volt D.C. battery bank — 1D630**, 2D630
   b) Full capacity charger — 1D633**, 2D633

3. Load group "I" power source, consisting of:
   a) 250-volt D.C. battery bank — 2D650
   b) Half-capacity chargers — 2D653A, 2D653B

4. Load group "I" power source, consisting of:
   a) ± 24-volt D.C. battery bank — 2D670
   b) Two half-capacity chargers — 2D673, 2D674

b. Division II consisting of:

1. Load group Channel "B" power source, consisting of:
   a) 125-volt D.C. battery bank — 1D620**, 2D620
   b) Full capacity charger — 1D623**, 2D623

2. Load group Channel "D" power source, consisting of:
   a) 125-volt D.C. battery bank — 1D640**, 2D640
   b) Full capacity charger — 1D643**, 2D643

3. Load group "II" power source, consisting of:
   a) 250-volt D.C. battery bank — 2D660
   b) Full capacity charger — 2D663

4. Load group "II" power source, consisting of:
   a) ± 24-volt D.C. battery bank — 2D680
   b) Two half-capacity chargers — 2D683, 2D684

SEE INSERT A ← C.

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5, and *.

ACTION: Division I (~~3.8.2.2.a~~) or Division II (~~3.8.2.2.b~~)

a. With less than the above required Unit 2 125-volt and/or 250-volt D.C. load group battery banks OPERABLE, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

*When handling irradiated fuel in the secondary containment.
**Not required to be OPERABLE when the requirements of ACTION b have been satisfied.

Insert A

c. Diesel Generator E

1. Load group power source, consisting of:

a) 125 volt DC battery bank 0D595

b) Full capacity charger 0D596

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

b. With less than the above required Unit 1 125-volt D.C. load group battery banks OPERABLE, either:

1. Suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel, or

2. Transfer the common loads aligned to the inoperable Unit 1 battery bank(s) to the corresponding Unit 2 battery bank(s).

Otherwise, declare the common loads aligned to the inoperable Unit 1 battery bank(s) inoperable and take the ACTION required by the applicable Specification(s).

c. With the above required ± 24-volt D.C. load group battery banks inoperable, declare the associated equipment inoperable and take the ACTION required by the applicable Specification(s).

Division I (~~3.8.2.1a~~) or Division II (~~3.8.2.1b~~)

d. With the above required charger(s) inoperable, demonstrate the OPERABILITY of the associated battery by performing Surveillance Requirement 4.8.2.1.a.1 within one hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare the battery inoperable.

e. The provisions of Specification 3.0.3 are not applicable.

SEE INSERT B ← f, g, h, i.

SURVEILLANCE REQUIREMENTS

4.8.2.2 At least the above required battery and charger shall be demonstrated OPERABLE per Surveillance Requirement 4.8.2.1.

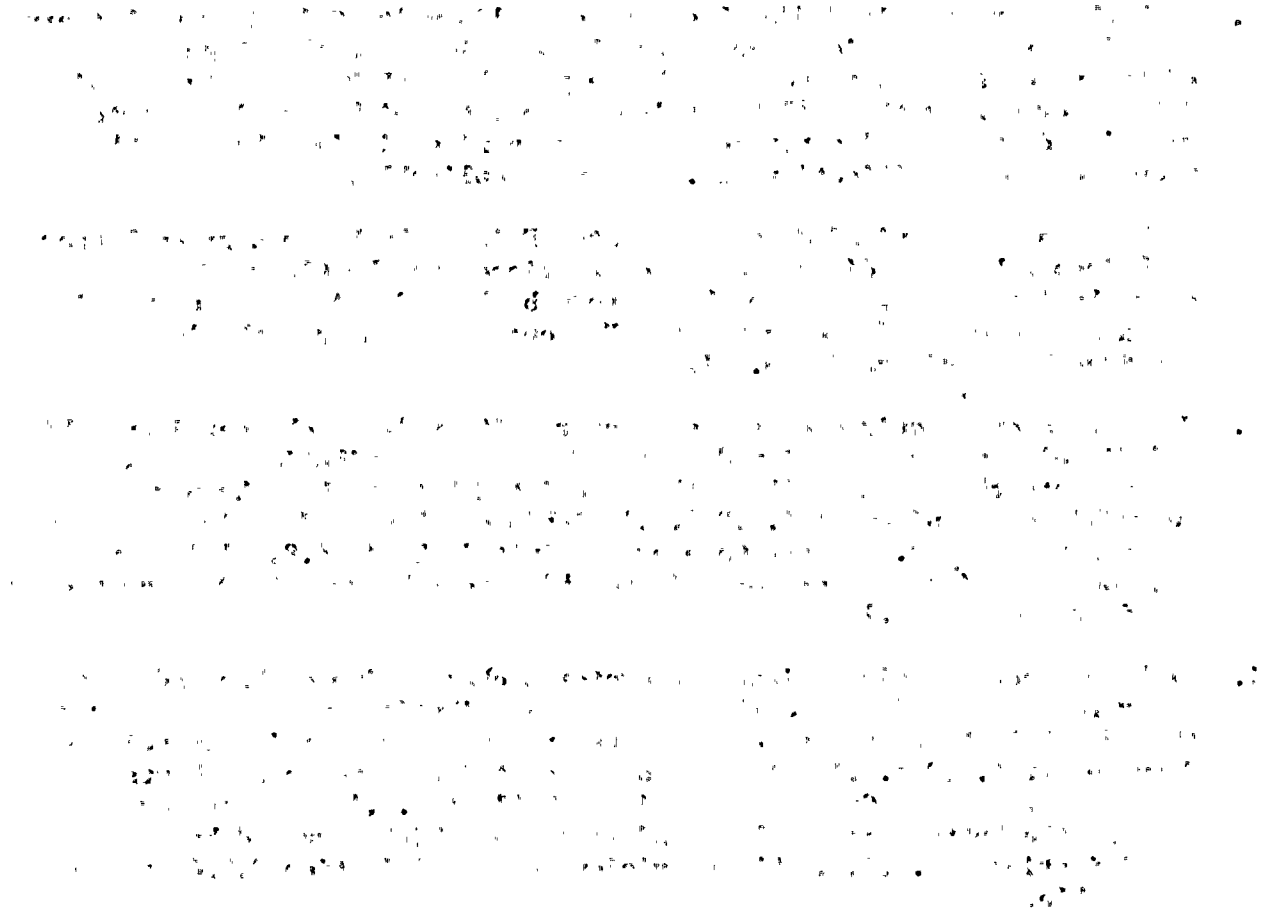
Insert B

f. With the above required diesel generator E 125 volt DC load group battery bank inoperable and diesel generator E not aligned to the Class 1E distribution system, restore the battery bank to OPERABLE status within 2 hours or verify that all ESW valves associated with diesel generator E are closed and diesel generator E is not running within 2 hours. The provisions of Specification 3.0.4 are not applicable.

g. With the above required diesel generator E 125 volt DC load group battery bank inoperable and diesel generator E aligned to the Class 1E distribution system, restore the battery bank to OPERABLE status within 2 hours or declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.1.

h. With the above required diesel generator E 125 volt DC charger inoperable and diesel generator E aligned to the Class 1E distribution system, demonstrate the OPERABILITY of the associated battery bank by performing Surveillance Requirement 4.8.2.1.a.1 within one hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.1.

i. With the above required diesel generator E charger inoperable and diesel generator E not aligned to the Class 1E distribution system, demonstrate the OPERABILITY of its associated battery bank by performing Surveillance Requirement 4.8.2.1.a.1 within 1 hour and at least once per 8 hours thereafter. If any Category A limit in Table 4.8.2.1-1 is not met, declare the battery inoperable, and take the ACTION required by specification 3.8.2.1.f. The provisions of Specification 3.0.4 are not applicable.



ELECTRICAL POWER SYSTEMS

3/4.8.3 ONSITE POWER DISTRIBUTION SYSTEMS

DISTRIBUTION - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.3.1 The following power distribution system divisions shall be energized with tie breakers open both between redundant buses within the unit and between units at the same station:

a. A.C. power distribution:

1. Division I, consisting of:

a)	Load group Channel "A", consisting of:	
	1) 4160-volt A.C. switchgear bus	1A201, 2A201
	2) 480-volt A.C. load center	1B210, 2B210
	3) 480-volt A.C. motor control center	0B516
b)	Load group Channel "C", consisting of:	
	1) 4160-volt A.C. switchgear bus	1A203, 2A203
	2) 480-volt A.C. load center	1B230, 2B230
	3) 480-volt A.C. motor control center	0B536
~~c)~~	~~Load group 480 volt A.C. motor control centers~~	~~0B517, 0B136 1B216, 1B236, 2B216, 2B236 1B217, 2B237, 2B217~~
~~d)~~	~~Load group 208/120-volt A.C. instrument panels~~	~~1Y216, 1Y236, 2Y216, 2Y236~~
e)	Isolated 480 volt A.C. swing bus, including:	2B219
	1) Preferred power source	
	2) Preferred power source MG set	
	3) Alternate power source	
	4) Automatic transfer switch	

2. Division II, consisting of:

a)	Load group Channel"B", consisting of:	
	1) 4160-volt A.C. switchgear bus	1A202, 2A202
	2) 480-volt A.C. load center	1B220, 2B220
	3) 480-volt A.C. motor control center	0B526
b)	Load group Channel "D", consisting of:	
	1) 4160-volt A.C. switchgear bus	1A204, 2A204
	2) 480-volt A.C. load center	1B240, 2B240
	3) 480-volt A.C. motor control center	0B546
~~c)~~	~~Load group 480-volt A.C. motor control~~ centers	~~0B527, 0B146 1B226, 1B246, 2B226, 2B246 1B227, 2B227, 2B247~~
~~d)~~	~~Load group 208/120-volt A.C. instrument panels~~	~~1Y226, 1Y246 2Y226, 2Y246~~
e)	Isolated 480 volt A.C. swing bus, including:	2B229
	1) Preferred power source	
	2) Preferred power source MG set	
	3) Alternate power source	
	4) Automatic transfer switch	

Previous change: Submitted Under PLA-2562 as proposed Amendment #74

SEE INSERT 'A'

SEE INSERT C ← 3.

INSERT A

a. A.C. power distribution:

1.	Division I, consisting of:	
a)	Load group Channel "A", consisting of:	NEW CHANGE
1)	4160-volt A.C. switchgear bus	1A201, 2A201, 0A510A
2)	480-volt A.C. load center	1B210, 2B210
3)	480-volt A.C. motor control centers	0B516, 0B517, 1B216, 2B216 1B217, 2B217
4)	208/120-volt A.C. instrument panels	1Y216, 2Y216
b)	Load group Channel "C", consisting of:	NEW CHANGE
1)	4160-volt A.C. switchgear bus	1A203, 2A203, 0A510C
2)	480-volt A.C. load center	1B230, 2B230
3)	480-volt A.C. motor control centers	0B536, 0B136 1B236, 2B236 2B237
4)	208/120-volt A.C. instrument panels	1Y236, 2Y236
c)	Isolated 480 volt A.C. swing bus, including:	2B219
1)	Preferred power source	
2)	Preferred power source MG set	
3)	Alternate power source	
4)	Automatic transfer switch	
2.	Division II, consisting of:	
a)	Load group Channel "B", consisting of:	NEW CHANGE
1)	4160-volt A.C. switchgear bus	1A202, 2A202, 0A510B
2)	480-volt A.C. load center	1B220, 2B220
3)	480-volt A.C. motor control centers	0B526, 0B527 1B226, 2B226 1B227, 2B227
4)	208/120-volt A.C. instrument panels	1Y226, 2Y226
b)	Load group Channel "D", consisting of	NEW CHANGE
1)	4160-volt A.C. switchgear bus	1A204, 2A204, 0A510D
2)	480-volt A.C. load center	1B240, 2B240
3)	480-volt A.C. motor control centers	0B546, 0B146
4)	208/120-volt A.C. instrument panels	1Y246, 2Y246
e)	Isolated 480 volt A.C. swing bus, including:	2B229
1)	Preferred power source	
2)	Preferred power source MG set	
3)	Alternate power source	
4)	Automatic transfer switch	

Insert C

3. Diesel Generator E, when aligned to the Class 1E system

   a) Load group consisting of:

      1) 4160 volt A.C. switchgear bus 0A510E

      2) 480 volt A.C. motor control center 0B565

LIMITING CONDITION FOR OPERATION (Continued)

b. D.C. power distribution:

1. Division I, consisting of:

a)	Load group Channel "A", consisting of:	
1)	125-volt D.C. buses	1D612**, 1D614** 2D612, 2D614
2)	Fuse box	1D611**, 2D611
b)	Load group Channel "C", consisting of:	
1)	125-volt D.C. buses	1D632**, 1D634**, 2D632, 2D634
2)	Fuse box	1D631**, 2D631
c)	Load group "I", consisting of:	
1)	250-volt D.C. buses	2D652, 2D254
2)	Fuse box	2D651,
d)	Load group "I", consisting of:	
1)	± 24-volt D.C. buses	2D672
2)	Fuse box	2D671

2. Division II, consisting of:

a)	Load group Channel "B" consisting of:	
1)	125-volt D.C. buses	1D622**, 1D624**, 2D622, 2D624
2)	Fuse box	1D621**, 2D621
b)	Load group Channel "D" consisting of:	
1)	125-volt D.C. buses	1D642**, 1D644**, 2D642, 2D644
2)	Fuse box	1D641**, 2D641
c)	Load group "II" consisting of:	
1)	250-volt D.C. buses	2D662, 2D264, 2D274
2)	Fuse box	2D661
d)	Load group "II" consisting of:	
1)	± 24-volt D.C. buses	2D682
2)	Fuse box	2D681

SEE INSERT D ← 3.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

Unit 2 Division I or Division II NEW CHANGE

a. With one of the above required A.C. distribution system load groups not energized, reenergize the load group within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Previous change

SEE INSERT B ← b.

Division I or Division II NON CHANGE

c b. With one of the above required Unit 2 D.C. distribution system load groups not energized, reenergize the load group within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

**Not required to be OPERABLE when the requirements of ACTION d have been satisfied.

Insert D

3. Diesel Generator E

   a) Load group, consisting of:

      1) 125 volt DC bus 0D597

INSERT B

b. With one of the above required Unit 1 and common A.C. distribution system load groups not energized, re-energize the load group within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

d. With one or more of the above required Unit 1 D.C. distribution system load groups not energized, within 2 hours either:

1. Reenergize the load group(s), or

2. Transfer the common loads aligned to the deenergized Unit 1 load group(s) to the corresponding Unit 2 load group(s).

Otherwise, declare the common loads aligned to the deenergized Unit 1 load group(s) inoperable and take the ACTION required by the applicable Specification(s).

e. With one or both of the isolated 480-volt A.C. swing busses inoperable, declare the associated LPCI loop inoperable (see Specification 3.5.1).

SEE INSERT E → f. g. h.

SURVEILLANCE REQUIREMENTS

4.8.3.1.1 Each of the above required power distribution system load groups shall be determined energized at least once per 7 days by verifying correct breaker alignment and voltage on the busses/MCCs/panels.

4.8.3.1.2 The isolated 480-volt A.C. swing bus automatic transfer switches shall be demonstrated OPERABLE at least once per 31 days by actuating the load test switch or by disconnecting the preferred power source to the transfer switch and verifying that swing bus automatic transfer is accomplished.

Insert E

f. With the above required diesel generator E A.C. distribution system load group not energized and diesel generator E aligned to the Class 1E distribution system, re-energize the load group within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

g. With the above required diesel generator E 125 volt D.C. distribution system load group not energized and diesel generator E not aligned to the Class 1E distribution system, re-energize the load group within 2 hours or shutdown diesel generator E and close all ESW valves associated with diesel generator E within 2 hours. The provisions of Specification 3.0.4 are not applicable.

h. With the above required diesel generator E 125 volt D.C. distribution system load group not energized and diesel generator E aligned to the Class 1E distribution system, re-energize the load group within 2 hours or declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.1.

ELECTRICAL POWER SYSTEMS

DISTRIBUTION - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.3.2 As a minimum, the following power distribution system divisions shall be energized:

a. For A.C. power distribution, Division I or Division II with:

1. Division I consisting of:

a)	Load group Channel "A", consisting of:	
	1) 4160-volt A.C. switchgear bus	1A201, 2A201
	2) 480-volt A.C. load center	1B210, 2B210
	3) 480-volt A.C. motor control center	0B516
b)	Load group Channel "C", consisting of:	
	1) 4160-volt A.C. switchgear bus	1A203, 2A203
	2) 480-volt A.C. load center	1B230, 2B230
	3) 480-volt A.C. motor control center	0B536
~~c)~~	~~Load group 480-volt A.C. motor control centers~~	~~0B517, 0B136 1B216, 1B236, 2B216, 2B236 1B217, 2B217, 2B237~~
~~d)~~	~~Load group 208/120-volt A.C. instrument panels~~	~~1Y216, 1Y236 2Y216, 2Y236~~
e)	Isolated 480 volt A.C. swing bus, including:	2B219*
	1) Preferred power source	
	2) Preferred power source MG set	
	3) Alternate power source	
	4) Automatic transfer switch	

2. Division II consisting of:

a)	Load group Channel "B", consisting of:	
	1) 4160-volt A.C. switchgear bus	1A202, 2A202
	2) 480-volt A.C. load center	1B220, 2B220
	3) 480-volt A.C. motor control center	0B526
b)	Load group Channel "D", consisting of:	
	1) 4160-volt A.C. switchgear bus	1A204, 2A204
	2) 480-volt A.C. load center	1B240, 2B240
	3) 480-volt A.C. motor control center	0B546
~~c)~~	~~Load group 480-volt A.C. motor control centers~~	~~0B527, 0B146 1B226, 1B246, 2B226, 2B246 1B227, 2B227, 2B247~~
~~d)~~	~~Load group 208/120-volt A.C. instrument panels~~	~~1Y226, 1Y246 2Y226, 2Y246~~

Previous Change: Submitted under PLA-2562 as Proposed Amendment #74

EE INSERT 'A'

*The swing bus shall be OPERABLE if the Division I LPCI subsystem alone is fulfilling the requirements of Specification 3.5.2.

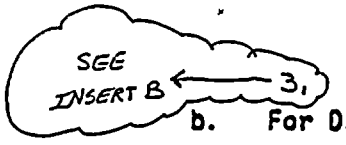
INSERT A

a. For A.C. power distribution, Division I, or Division II, with: (NEW CHANGE: and diesel generator E)

1. Division I consisting of:
   a) Load group Channel "A", consisting of: (NEW CHANGE: OA510A)
      1) 4160-volt A.C. switchgear bus — 1A201, 2A201
      2) 480-volt A.C. load center — 1B210, 2B210
      3) 480-volt A.C. motor control centers — 0B516, 0B517, 1B216, 2B216, 1B217, 2B217
      4) 208/120-volt A.C. instrument panels — 1Y216, 2Y216
   b) Load group Channel "C", consisting of: (NEW CHANGE: OA510C)
      1) 4160-volt A.C. switchgear bus — 1A203, 2A203
      2) 480-volt A.C. load center — 1B230, 2B230
      3) 480-volt A.C. motor control centers — 0B536, 0B136, 1B236, 2B236, 2B237
      4) 208/120-volt A.C. instrument panels — 1Y236, 2Y236
   c) Isolated 480 volt A.C. swing bus, including: — 2B219*
      1) Preferred power source
      2) Preferred power source MG set
      3) Alternate power source
      4) Automatic transfer switch
2. Division II consisting of:
   a) Load group Channel "B", consisting of: (NEW CHANGE: OA510B)
      1) 4160-volt A.C. switchgear bus — 1A202, 2A202
      2) 480-volt A.C. load center — 1B220, 2B220
      3) 480-volt A.C. motor control center — 0B526, 0B527, 1B226, 2B226, 1B227, 2B227
      4) 208/120-volt A.C. instrument panels — 1Y226, 2Y226
   b) Load group Channel "D", consisting of: (NEW CHANGE: OA510D)
      1) 4160-volt A.C. switchgear bus — 1A204, 2A204
      2) 480-volt A.C. load center — 1B240, 2B240
      3) 480-volt A.C. motor control center — 0B546, 0B146, 1B246, 2B246, 2B247
      4) 208/120-volt A.C. instrument panels — 1Y246, 2Y246

LIMITING CONDITION FOR OPERATION (Continued)

e) Isolated 480 volt A.C. swing bus; including: 2B229*
   1) Preferred power source
   2) Preferred power source MG set
   3) Alternate power source
   4) Automatic transfer switch



b. For D.C. power distribution, Division I or Division II, with:

1. Division I consisting of:

a)	Load group Channel "A", consisting of:	
1)	125-volt D.C. buses	1D612***, 1D614***, 2D612, 2D614
2)	Fuse box	1D611***, 2D611
b)	Load group Channel "C", consisting of:	
1)	125-volt D.C. buses	1D632***, 1D634***, 2D632, 2D634
2)	Fuse box	1D631***, 2D631
c)	Load group "I", consisting of:	
1)	250-volt D.C. buses	2D652, 2D254
2)	Fuse box	2D651
d)	Load group "I", consisting of:	
1)	± 24-volt D.C. buses	2D672
2)	Fuse box	2D671

2. Division II consisting of:

a)	Load group Channel "B", consisting of:	
1)	125-volt D.C. buses	1D622***, 1D624***, 2D622, 2D624
2)	Fuse box	1D621***, 2D621
b)	Load group Channel "D", consisting of:	
1)	125-volt D.C. buses	1D642***, 1D644***, 2D642, 2D644
2)	Fuse box	1D641***, 2D641
c)	Load group "II", consisting of:	
1)	250-volt D.C. buses	2D662, 2D264, 2D274
2)	Fuse box	2D661
d)	Load group "II", consisting of:	
1)	± 24-volt D.C. buses	2D682
2)	Fuse box	2D681

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5, and **.

*The swing bus shall be OPERABLE if the Division II LPCI subsystem alone is fulfilling the requirements of Specification 3.5.2.
**When handling irradiated fuel in the secondary containment.
***Not required to be OPERABLE when the requirements of ACTION c have been satisfied.

Insert B

3. Diesel Generator E

   a) Load Group, consisting of:

      1) 4160 volt A.C. switchgear bus 0A510E

      2) 480 volt A.C. motor control center 0B565

Insert C

3. Diesel Generator E

   a) Load group, consisting of:

      1) 125 volt DC bus 0D597

LIMITING CONDITION FOR OPERATION (Continued)

ACTION:

a. With less than the Division I or Division II load groups of the above required A.C. distribution system energized, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

b. With less than the Division I or Division II load groups of the above required Unit 2 D.C. distribution system energized, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

c. With less than Division I or Division II of the above required Unit 1 D.C. distribution system energized, either:

1. Suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel; or

2. Transfer the common loads aligned to the deenergized Unit 1 load group(s) to the corresponding Unit 2 load group(s).

Otherwise, declare the common loads aligned to the deenergized Unit 1 load group(s) inoperable and take the ACTION required by the applicable Specification(s).

d. With one or both of the isolated 480 volt A.C. Swing busses inoperable, declare the associated LPCI loop inoperable (see Specification 3.5.2).

e. The provisions of Specification 3.0.3 are not applicable.

SEE INSERT D ← f. g. h.

SURVEILLANCE REQUIREMENTS

4.8.3.2.1 At least the above required power distribution system divisions shall be determined energized at least once per 7 days by verifying correct breaker alignment and voltage on the busses/MCCs/panels.

4.8.3.2.2 The isolated A.C. swing bus automatic transfer switches shall be demonstrated OPERABLE at least once per 31 days by actuating the load test switch or by disconnecting the preferred power source to the transfer switch and verifying that swing bus automatic transfer is accomplished.

Insert D

f. With the above required diesel generator E A.C. distribution system load group not energized and diesel generator E aligned to the Class 1E distribution system, re-energize the load group within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

g. With the above required diesel generator E 125 volt D.C. distribution system load group not energized and diesel generator E not aligned to the Class 1E distribution system, re-energize the load group within 2 hours or shutdown diesel generator E and close all ESW valves associated with diesel generator E within 2 hours. The provisions of Specification 3.0.4 are not applicable.

h. With the above required diesel generator E 125 volt D.C. distribution system load group not energized and diesel generator E aligned to the Class 1E distribution system, re-energize the load group within 2 hours or declare diesel generator E inoperable and take the ACTION required by specification 3.8.1.2.

ELECTRICAL POWER SYSTEMS

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION - CONTINUOUS

LIMITING CONDITION FOR OPERATION

3.8.4.2.a

~~3.8.4.2~~ The thermal overload protection of each valve shown in Table ~~3.8.4.2-1~~ 3.8.4.2.1-1 shall be bypassed continuously by an OPERABLE bypass device integral with the motor starter.

APPLICABILITY: Whenever the motor-operated valve is required to be OPERABLE unless otherwise specified.

ACTION:

a. With thermal overload protection for one or more of the above required valves not bypassed continuously by an OPERABLE integral bypass device, take administrative action to continuously bypass the thermal overload within 8 hours or declare the affected valve(s) inoperable and apply the appropriate ACTION statement(s) for the affected system(s).

b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.4.2.1.1

~~4.8.4.2.1~~ The thermal overload protection for the above required valves shall be verified to be bypassed continuously by an OPERABLE integral bypass device by verifying that the thermal overload protection is bypassed:

a. At least once per 18 months, and

b. Following maintenance on the motor starter.

4.8.4.2.1.2

~~4.8.4.2.2~~ The thermal overload protection shall be verified to be bypassed following activities during which the thermal overload protection was temporarily placed in force.

3.8.4.2.1-1

TABLE ~~3.8.4.2-1~~

MOTOR-OPERATED VALVES THERMAL OVERLOAD PROTECTION - CONTINUOUS

VALVE NUMBER	SYSTEM(S) AFFECTED
HV-01222A	RHRSW
HV-01222B	RHRSW
HV-01224A1	RHRSW
HV-01224B1	RHRSW
HV-01224A2	RHRSW
HV-01224B2	RHRSW
* HV-01112A	ESW
* HV-01112B	ESW
* HV-01122A	ESW
* HV-01122B	ESW
* HV-01112C	ESW
* HV-01112D	ESW
* HV-01122C	ESW
* HV-01122D	ESW
* HV-01110A	ESW
* HV-01110B	ESW
* HV-01120A	ESW
* HV-01120B	ESW
* HV-01110C	ESW
* HV-01110D	ESW
* HV-01120C	ESW
* HV-01120D	ESW
HV-21144A	ESW
HV-21144B	ESW
HV-08693A	ESW
HV-08693B	ESW
HV-01201A1	RHRSW
HV-01201A2	RHRSW
HV-01201B1	RHRSW
HV-01201B2	RHRSW
HV-21210A	RHRSW
HV-21210B	RHRSW
HV-21215A	RHRSW
HV-21215B	RHRSW
HV-25766	Cont. Isol.
HV-25768	Cont. Isol.
HV-22603	Cont. Isol.
HV-21345	Cont. Isol.
HV-21313	Cont. Isol.
HV-21346	Cont. Isol.
HV-21314	Cont. Isol.
HV-E11-2F009	RHR
HV-E11-2F040	RHR
HV-G33-2F001	RWCU

* HV-01110E
* HV-01120E
* HV-01112E
* HV-01122E

ESW ESW ESW ESW

* Continuous bypass not required when corresponding diesel generator is not aligned to the Class 1E distribution system.

TABLE 3.8.4.2-1 (Continued)

MOTOR-OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NUMBER	SYSTEM(S) AFFECTED
HV-E11-2F103A	RHR
HV-E11-2F075A	RHRSW
HV-E11-2F048A	RHR
HV-E11-2F006C	RHR
HV-E11-2F004C	RHR
HV-E11-2F015A	RHR
HV-E11-2F024A	RHR
HV-E21-2F015A	CS
HV-E41-2F002	HPCI
HV-B21-2F016	NSSS
HV-E11-2F022	RHR
HV-E11-2F010A	RHR
HV-E11-2F011A	RHR
HV-E11-2F004A	RHR
HV-E11-2F006A	RHR
HV-E11-2F027A	RHR
HV-E11-2F007A	RHR
HV-E11-2F104A	RHR
HV-E11-2F026A	RHR
HV-E11-2F028A	RHR
HV-E11-2F047A	RHR
HV-E11-2F073A	RHRSW
HV-E11-2F003A	RHR
HV-E11-2F017A	RHR
HV-E21-2F001A	CS
HV-E21-2F031A	CS
HV-E21-2F004A	CS
HV-E21-2F005A	CS
HV-E11-2F021A	RHR
HV-E11-2F016A	RHR
HV-25112	RHR
HV-E51-2F007	RCIC
HV-E51-2F084	RCIC
HV-E11-2F027B	RHR
HV-E11-2F048B	RHR
HV-E11-2F015B	RHR
HV-E11-2F006B	RHR
HV-E11-2F021B	RHR
HV-E11-2F010B	RHR
HV-E11-2F011B	RHR
HV-E11-2F004B	RHR
HV-E11-2F007B	RHR
HV-E11-2F104B	RHR
HV-E11-2F026B	RHR

TABLE 3.8.4.2-1 (Continued)

MOTOR-OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NUMBER	SYSTEM(S) AFFECTED
HV-E11-2F028B	RHR
HV-E11-2F047B	RHR
HV-E11-2F016B	RHR
HV-E11-2F003B	RHR
HV-E11-2F017B	RHR
HV-E21-2F031B	CS
HV-E21-2F001B	CS
HV-E11-2F103B	RHR
HV-E11-2F075B	RHRSW
HV-E11-2F073B	RHRSW
HV-E11-2F006D	RHR
HV-E11-2F004D	RHR
HV-E11-2F024B	RHR
HV-E21-2F015B	CS
HV-E21-2F004B	CS
HV-E21-2F005B	CS
HV-E32-2F001K	MSIV
HV-E32-2F002K	MSIV
HV-E32-2F003K	MSIV
HV-E32-2F001P	MSIV
HV-E32-2F002P	MSIV
HV-E32-2F003P	MSIV
HV-E32-2F001B	MSIV
HV-E32-2F002B	MSIV
HV-E32-2F003B	MSIV
HV-E32-2F001F	MSIV
HV-E32-2F002F	MSIV
HV-E32-2F003F	MSIV
HV-E32-2F006	MSIV
HV-E32-2F007	MSIV
HV-E32-2F008	MSIV
HV-E32-2F009	MSIV
HV-E51-2F045	RCIC
HV-E51-2F012	RCIC
HV-E51-2F013	RCIC
HV-25012	RCIC
HV-E51-2F046	RCIC
HV-E51-2F008	RCIC
HV-E51-2F031	RCIC
HV-E51-2F010	RCIC

TABLE 3.8.4.2-1 (Continued)

MOTOR-OPERATED VALVES THERMAL OVERLOAD PROTECTION

VALVE NUMBER	SYSTEM(S) AFFECTED
HV-E51-2F019	RCIC
HV-E51-2F060	RCIC
HV-E51-2F059	RCIC
HV-E51-2F022	RCIC
HV-E51-2F062	RCIC
HV-E41-2F012	HPCI
HV-E41-2F001	HPCI
HV-E41-2F011	HPCI
HV-E41-2F006	HPCI
HV-E41-2F079	HPCI
HV-E41-2F059	HPCI
HV-E41-2F004	HPCI
HV-E41-2F003	HPCI
HV-E41-2F042	HPCI
HV-E41-2F075	HPCI
HV-E41-2F008	HPCI
HV-E41-2F007	HPCI
HV-E41-2F066	HPCI
HV-G33-2F004	RWCU
HV-B21-2F019	NSSS
HV-E11-2F008	RHR
HV-E11-2F023	RHR
HV-E11-2F049	RHR
HV-B31-2F032A	Rx Recirc
HV-B31-2F032B	Rx Recirc
HV-B31-2F031A	Rx Recirc
HV-B31-2F031B	Rx Recirc

ELECTRICAL POWER SYSTEMS

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION - AUTOMATIC

LIMITING CONDITION FOR OPERATION

3.8.4.2.2 The thermal overload protection of each valve shown in Table 3.8.4.2.2-1 shall be bypassed automatically by an OPERABLE bypass device integral with the motor starter.

APPLICABILITY: When diesel generator E is not aligned to the Class 1E distribution system.

ACTION:

a. With thermal overload protection automatic bypass inoperable for one or more valves listed above, take administrative action to continuously bypass the thermal overload within 8 hours, or verify that all diesel generator E ESW valves are closed and diesel generator E is not running within 8 hours.

b. The provision of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.4.2.2.1 The automatic bypass of thermal overload protection for those valves listed above shall be demonstrated OPERABLE at least once per 18 months.

TABLE 3.8.4.2.2-1

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION - AUTOMATIC

Valve Number	System(s) Affected
HV-01110E	ESW
HV-01120E	ESW
HV-01112E	ESW
HV-01122E	ESW

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1, 3/4.8.2 and 3/4.8.3 A.C. SOURCES, D.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for (1) the safe shutdown of the facility and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least three of the onsite A.C. and the corresponding D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of one other onsite A.C. source. (INSERT A)

The A.C. and D.C. source allowable out-of-service times are based on Regulatory Guide 1.93, "Availability of Electrical Power Sources," December 1974. When one diesel generator is inoperable, there is an additional ACTION requirement to verify that all required systems, subsystems, trains, components and devices, that depend on the remaining OPERABLE diesel generator as a source of emergency power, are also OPERABLE. This requirement is intended to provide assurance that a loss of offsite power event will not result in a complete loss of safety function of critical systems during the period one of the diesel generators is inoperable. The term verify as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the surveillance requirements needed to demonstrate the OPERABILITY of the component.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that (1) the facility can be maintained in the shutdown or refueling condition for extended time periods and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

The surveillance requirements for demonstrating the OPERABILITY of the diesel generators are in accordance with the recommendations of Regulatory Guide 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies", March 10, 1971, Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants", Revision 1, August 1977 and Regulatory Guide 1.137 "Fuel-Oil Systems for Standby Diesel Generators", Revision 1, October 1979.

INSERT A: The plant configuration consists of four diesel generators - A, B, C, & D - and a spare fifth diesel generator - E - which can be substituted for any one of the four diesel generators.

A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

The surveillance requirements for demonstrating the OPERABILITY of the unit batteries are in accordance with the recommendations of Regulatory Guide 1.129, "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants", February 1978, and IEEE Std 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations."

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage onfloat charge, connection resistance values and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates and compares the battery capacity at that time with the rated capacity.

Table 4.8.2.1-1 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and .015 below the manufacturer's full charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than .020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than .010 below the manufacturer's full charge specific gravity, ensures the OPERABILITY and capability of the battery.

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8.2.1-1 is permitted for up to 7 days. During this 7 day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than .020 below the manufacturer's recommended full charge specific gravity, ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity ensures that an individual cell's specific gravity will not be more than .040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

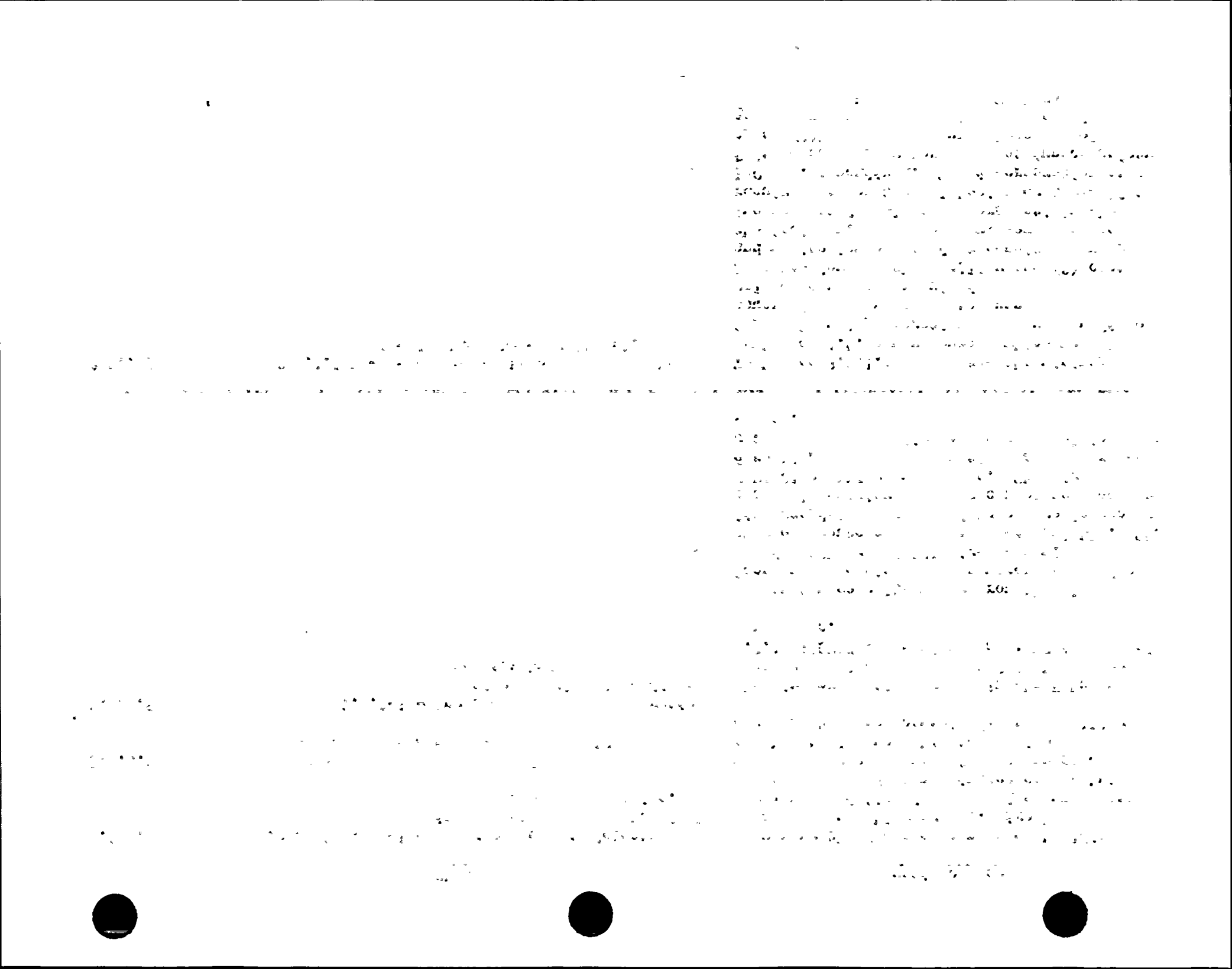
Primary containment electrical penetrations and penetration conductors are protected by either de-energizing circuits not required during reactor operation or demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers by periodic surveillance.

The surveillance requirements applicable to lower voltage circuit breakers and fuses provides assurance of breaker and fuse reliability by testing at least one representative sample of each manufacturers brand of circuit breaker and/or fuse. Each manufacturer's molded case and metal case circuit breakers and/or fuses are grouped into representative samples which are than tested on a rotating basis to ensure that all breakers and/or fuses are tested. If a wide variety exists within any manufacturer's brand of circuit breakers and/or fuses, it is necessary to divide that manufacturer's breakers and/or fuses into groups and treat each group as a separate type of breaker or fuses for surveillance purposes.

The bypassing of the motor operated valve thermal overload protection continuously by integral bypass devices ensures that the thermal overload protection will not prevent safety related valves from performing their function. The surveillance requirements for demonstrating the bypassing of the thermal overload protection continuously are in accordance with Regulatory Guide 1.106 "Thermal Overload Protection for Electric Motors on Motor Operated Valves", Revision 1, March 1977.

ATTACHMENT 3

Tech Spec	Change	Justification
3.3.7.9	Table 3.3.7.9-1 - Incorporate fire detection instrumentation for the fifth diesel generator building.	Requiring the E diesel generator building spray and sprinkler system, fire hose stations, and fire detection instrumentation to be OPERABLE does not impact safety but merely ensures adequate fire suppression capability is available to confine and extinguish fires occurring in the facility.
3.7.6.2	Incorporate item 'O' entitled "Diesel Generator E Building (Fire Zone 0-41E)"	
3.7.6.5	Table 3.7.6.5-1 - Incorporate fire hose station location for the fifth diesel generator building	The fire protection system in the E building meets the criteria delineated in FSAR Chapter 9.5.1; 10CFR50, Appendix R and; NFPA National Fire Codes. The system gets its water from the Plant yard loop and is designed for a water supply from one 500 GPM at 125 PSI fire pump with the shortest route assumed to be unavailable. The fire standpipe system and hoses are located so that all interior sections can be reached per NFPA Class III requirements. The fire detection system is compatible and interfaces with the existing fire protection multiplexing system.
3.8.1.1	3.8.1.1.b - Incorporate the phrase 'of the five' after the word 'Four'.	Tech Spec 3.8.1.1 delineates the minimum number of A.C. power sources which must be OPERABLE during operation to ensure sufficient power will be available to supply the safety related equipment required for (1) Safe-Shutdown of the facility and (2) control and mitigation of accident conditions within the facility. Additionally, separate and independent diesel generators satisfy the requirements of General Design Criteria 17 to 10CFR50, Appendix A. The incorporation of a fifth diesel generator does not impact safety since FSAR analyses assume three diesel generators are required for safe-shutdown of the Plant. This section of Tech Specs is



Tech Spec	Change	Justification
		being revised to reflect the fact that an additional diesel generator has been installed as part of the Plant configuration and can be utilized as a replacement for any one of the existing diesel generators.
	3.8.1.1.b.2 - Incorporate reference to the diesel generator E fuel storage system.	Diesel generator E is a higher rated machine than the existing diesel's, primarily because it carries its own house loads. The 60,480 gallons is a calculated number-per the guidelines of Reg. Guide 1.137-which represents the amount of fuel necessary to run the diesel generator at full load for seven continuous days. Similarly, the fuel oil tank for diesel generator E has an 80,000 gallon capacity as compared to 50,000 gallons for the existing diesel generators.
	3.8.1.1 Action a - Incorporated phrase Action c "for any reason other than aligning diesel generator E to the to the Class 1E distribution system" after the word 'inoperable'.	Action statements a & c assume the loss of one diesel generator or offsite circuit cause by a failure therein. When substituting diesel generator E it is necessary to remove an existing diesel from service for a short period of time (~2 hrs.) Incorporation of the proposed phrase would waive the requirement to enter into an LCO when substituting diesel generator E which is appropriate given the reason for removing the diesel from service and eliminate unnecessary testing of the other diesels.
4.8.1.1.2	4.8.1.1.2.d.3 Inserted new generator 4.8.1.1.2.d.4.b voltages and frequencies. 4.8.1.1.2.d.5	Administrative change to correct typographical error made when NRC issued this page under Amendment 36 to NPF-14. (Unit 1 change only)
	4.8.1.1.2.d.8 - Surveillance modified to reflect the E diesel generator 2000 hour	Diesel generator E has a higher 2000 hour rating because it carries its own house loads when operating. These loads are auto-

Tech Spec	Change	Justification
	rating of 5000KW	connected and must be considered when performing the 18 month surveillance. This verification is in accordance with the recommendations of Reg. Guide 1.108.
	4.8.1.1.2.d.11 - Delete requirement to verify the fuel transfer pump transfers fuel from each tank to the engine mounted day tank of each diesel generator.	Reg. Guide 1.108 recommends this surveillance if the practice is part of the normal operating procedures. At Susquehanna this transferring is not part of normal operating procedures and should not be verified in Tech Specs. Fuel transfer from the fuel oil tank to the corresponding diesel generator day tank is tested for each diesel every 31 days. There is no impact to safety since credit is not taken for this capability in any safety analyses.
4.8.1.1.3 (NEW)	The purpose of establishing section 4.8.1.1.3 is to delineate the testing requirements which will demonstrate the E diesel generator OPERABLE when it is substituted for diesel generator A, B, C or D. The requirements of this new section 4.8.1.1.3 are equivalent to existing surveillance testing except for those which would necessitate the E diesel be aligned to the Class 1E system. This alternate testing of the E diesel does not impact current testing programs.	
	4.8.1.1.3.a	Equivalent to 4.8.1.1.2.a.6
	4.8.1.1.3.b - Modified to indicate testing will be done once per 31 days.	The first series of testing will be performed once every 31 days. Under the existing Tech Specs 31 days is the maximum duration between tests and is appropriate when the E diesel generator is not aligned to the Class 1E system. Further, there is no need to test on a more frequent basis since there is no impact

Tech Spec	Change	Justification
		to safety if the E diesel fails the testing required under this surveillance.
4.8.1.1.3.b.1		Equivalent to 4.8.1.1.2.a.1
4.8.1.1.3.b.2		Equivalent to 4.8.1.1.2.a.2
4.8.1.1.3.b.3		Equivalent to 4.8.1.1.2.a.3
4.8.1.1.3.b.4	- Modified to reflect the fact that this verification can only be performed by manually starting the diesel	When diesel generator E is not aligned to the Class 1E system, starting from ambient condition can only be accomplished with a manual start signal.
4.8.1.1.3.b.5		Equivalent to 4.8.1.1.2.a.5
4.8.1.1.3.b.6		Equivalent to 4.8.1.1.2.a.7
4.8.1.1.3.c		Equivalent to 4.8.1.1.2.b
4.8.1.1.3.d		Equivalent to 4.8.1.1.2.c
4.8.1.1.3.e.	- Statement reworded to take credit for any surveillances which may have been performed while diesel generator E was aligned to the Class 1E distribution system.	
4.8.1.1.3.e.1		Equivalent to 4.8.1.1.2.d.1
4.8.1.1.3.e.2		Equivalent to 4.8.1.1.2.d.2
4.8.1.1.3.e.3		Equivalent to 4.8.1.1.2.d.3
4.8.1.1.3.e.4		Equivalent to 4.8.1.1.2.d.7
4.8.1.1.3.e.5		Equivalent to 4.8.1.1.2.d.12 (4.8.1.1.2.d.11 per this change)
4.8.1.1.3.e.6	- Modified to incorporate the testing required under existing Tech Specs 4.8.1.1.2.d.4, 4.8.1.1.2.d.5, and 4.8.1.1.2.d.6.	This surveillance is equivalent to existing tech specs 4.8.1.1.2.d.4, 4.8.1.1.2.d.5 and 4.8.1.1.2.d.6. The surveillance is comprised of two tests - however only one is required to be performed. Existing tech specs require the diesel be tested under a simulated loss of offsite

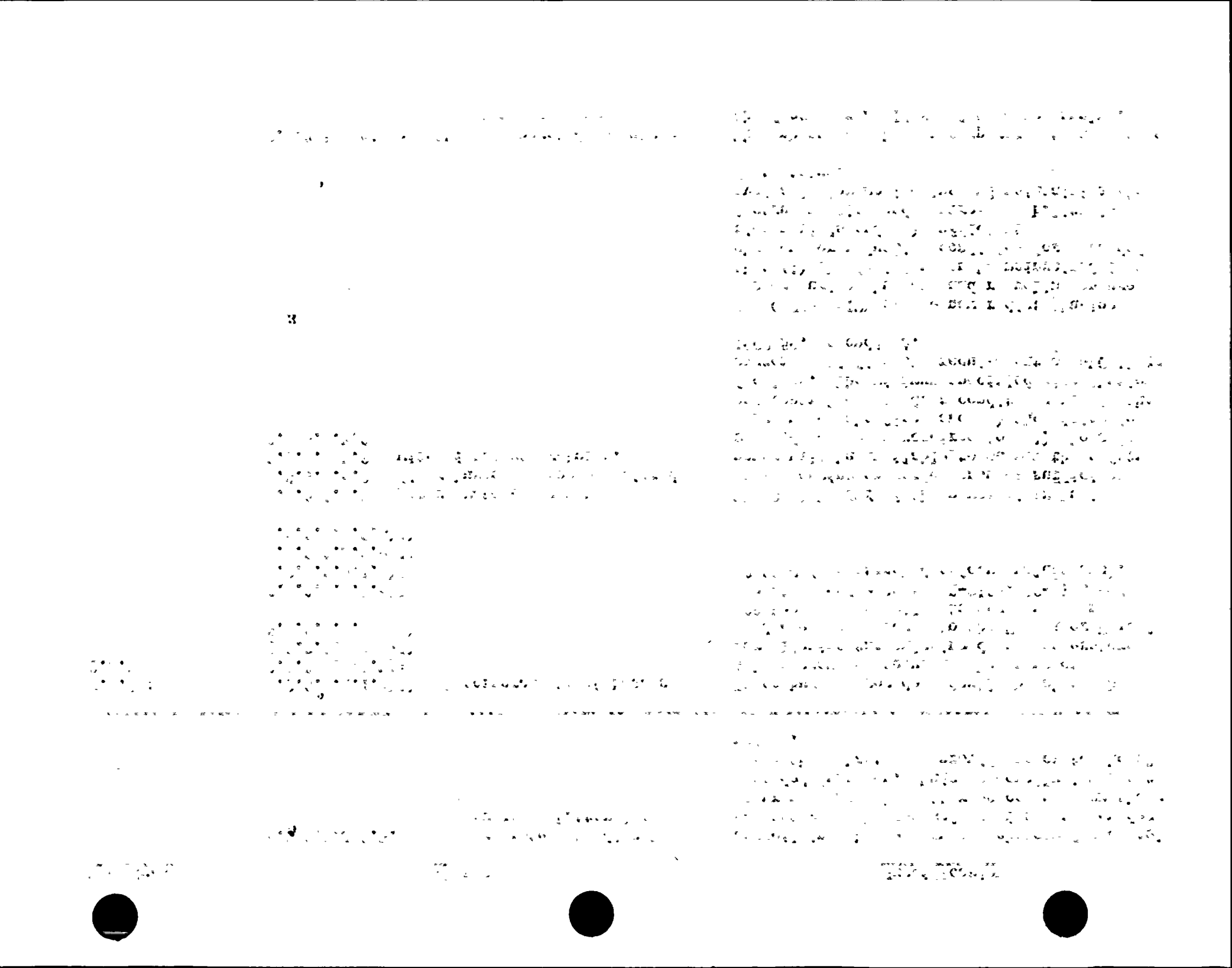
Tech Spec	Change	Justification
		power, an ECCS actuation test signal, and a loss of offsite power in conjunction with an ECCS actuation test signal. The purpose of these tests is to demonstrate that the associated test signals cause a diesel start. The first part of this surveillance 14.8.1.1.3.4.6 combines these three tests into one on the basis that once the diesel has started via one of the test signals, it is only necessary to verify that the relays associated with the other test signals are working. The second part of this surveillance provides the option of performing the three tests utilizing a load. Existing surveillance 4.8.1.1.2.d.4 performs a diesel generator auto start on a simulated loss of offsite power. This requires a dead bus which is only available during outages. Technically, this surveillance checks bus undervoltage sensing devices and diesel generator capability. The bus undervoltage relays are part of the existing Plant and have not been affected by installation of a fifth diesel generator. Diesel generator E's ability to auto start and load is independent of where the load originates therefore a load bank is acceptable. Existing surveillance 4.8.1.1.2.d.6 performs a diesel generator auto start on a simulated LOCA/LOOP signal followed by diesel generator loading according to design sequencing. This surveillance is intended to check the automatic load sequence timers and diesel generator capability. The sequence timers are not part of the bus or diesel logic but are part of the individual load control schemes. They function independent of whether diesel

Tech Spec	Change	Justification
		generator A or E is powering the bus. The ability of diesel generator E to respond to load sequencing must be tested however the diesels ability to auto start and accept load sequencing is independent of the load source therefore a load bank can be utilized.
4.8.1.1.3.e		Equivalent to 4.8.1.1.2.f, reworded to take credit for performing 4.8.1.1.2.f when Diesel generator was aligned to the Class 1E system.
The following existing surveillances have not been incorporated into this new surveillance 4.8.1.1.3:		
4.8.1.1.2.d.8		This verification is a calculation, performed on each diesel every 18 months. As stated previously, this section has been expanded to include the 5th diesel generator and is a verification which can be done regardless of the status of diesel generator E.
4.8.1.1.2.d.9		This verification cannot be performed when diesel generator E is not aligned to the Class 1E distribution system.
4.8.1.1.2.d.11		This surveillance will be performed once per 18 months regardless of the status of diesel generator E.
4.8.1.1.2.e		This testing cannot be accomplished because all 5 diesel generators cannot be operated at the same time.
4.8.1.1.4 -	Insert the phrase 'on the required diesel generators' in the last sentence after the word 'failures'.	All diesel generator failures, valid or non-valid, will continue to be reported to the Commission. This section of Tech Specs has been altered to reflect the fact that the

Tech Spec	Change	Justification
	Table 4.8.1.1.2-1 - Incorporated a new footnote which states "When diesel generator E is not aligned to the Class 1E distribution system, any failures will not be credited to the total failures for determining the test frequency of the diesel generators required to be OPERABLE".	report is only applicable to those diesels required for safe shutdown - which could include diesel generator E if it is aligned to the Class 1E system. The basis for this change is to eliminate the potential of placing diesel generators A, B, C, or D in a precarious position as a result of a failure on diesel E when it is not aligned.
	Table 4.8.1.1.2-2 - Expanded to include the diesel generator E loading timers. Also a footnote has been added to reflect current design.	Including diesel generator E's loading timers ensures the E Building supply and exhaust fans fans will be OPERABLE. The footnote has been added for clarity. There is no reason to verify - for example - the 'A' Diesel generator Room exhaust fan is operable if diesel generator A is out of service.
3.8.1.2	3.8.1.2.b - Incorporate the phrase 'of the five separate and independent' after the word 'Two', and the word 'each' after 'generators'.	Specification modified to reflect incorporation of a fifth diesel generator into the Plant configuration and the fact that any two of those five diesels will meet the Tech Spec requirement.
	3.8.1.2.b.2 - Incorporated the fuel requirements for diesel generator E.	The fifth diesel is a higher rated machine primarily because it carries its own house loads and requires significantly more fuel to meet Reg. Guide 1.137 i.e. enough fuel to operate for 7 days continuous at full load. There is no impact to safety since this calculated number is per the guidance in the Reg. Guide and is consistent with existing tech specs.

Tech Spec	Change	Justification
	4.8.1.2 - Incorporated reference to 4.8.1.1.4 - Reports, which was renumbered as a result of incorporation of a new surveillance 4.8.1.1.3. Reference to 4.8.1.1.3 has been deleted.	The reference to 4.8.1.1.3 has been deleted since it applies to diesel generator E, Diesel generator E will always be tested and demonstrated OPERABLE since it is not Unit related.
3.8.2.1 3.8.2.2	3.8.2.1.C - Incorporates the D.C. electrical 3.8.2.2.C power sources for diesel generator E.	The 125 volt D.C. system supplies d.c. power for diesel controls, field flashing, tripping the 4.16KV switchgear in the E diesel generator building and to the ECCS isolation valves. The system was installed in accordance with the recommendations in Reg. Guide 1.128 and will be surveilled per the guidelines in Reg. Guide 1.129 and IEEE Standard 450-1980.
	3.8.2.1 Action e. - Incorporated the phrase 3.8.2.2 Action a. 'Division I or 3.8.2.2 Action e. Division II' after the word 'required'.	This change is necessary to clarify that Action e is only applicable to Division I or Division II - which is appropriate because the battery bank and charger for diesel generator E have their own action statements.
	3.8.2.1.f New Action statements to address 3.8.2.1.g the battery bank and charger for 3.8.2.1.h diesel generator E. 3.8.2.1.i 3.8.2.2.g 3.8.2.2.h 3.8.2.2.i 3.8.2.2.j	The new Action statements address all possible scenarios i.e. when diesel generator E is and is not aligned to the Class 1E distribution system. The ACTION requirements specified provide restriction upon continued facility operation commensurate with the level of degradation. These new action statements are equivalent to the existing statements applicable to diesel generators A, B, C and D.
	4.8.2.1.c.4.d - Incorporated diesel E's battery charger.	Change is necessary to reflect unique changing requirements for the 125-volt diesel generator E batteries.

Tech Spec	Change	Justification
	4.8.2.1.d.2.b.(9 - Incorporated the diesel generator E batter load profile.	Surveilling the battery and charger for diesel generator E enhances safety since it provides assurance that the batteries can perform their intended function. This is equally important since these batteries provide power to the ESW valves.
3.8.3.1 3.8.3.2	3.8.3.1.a.1.a)1) 3.8.3.1.a.1.b)1) 3.8.3.1.a.2.a)1) 3.8.3.1.a.2.b)1) 3.8.3.2.a.1.a)1) 3.8.3.2.a.1.b)1) 3.8.3.2.a.2.a)1) 3.8.3.2.a.2.b)1) Incorporate OA510 busses	These busses provide a double break on the 4 kv system and serve as the transfer points for aligning the existing diesel generators or diesel generator E to the Unit 1 or Unit 2 ESS busses. The OA510 busses have been installed under DCP's 83-812A, 83-812B and 83-812C (see attached safety evaluations).
	3.8.3.1.a.3 3.8.3.2.a.3 3.8.3.1.b.3 3.8.3.2.b.3 Incorporate the power distribution system associated with diesel generator E.	The OPERABILITY of the power distribution system during operation ensures sufficient power will be available to supply the safety related equipment required for (1) the safe shutdown of the Plant and (2) the mitigation and control of accident conditions within the facility. The minimum specified distribution systems satisfies the requirement of GDC 17 to 10CFR50, Appendix A. The OPERABILITY of the power distribution system during shutdown and refueling ensures that (1) the facility can be maintained in the shutdown or refueling condition for extended time periods and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the Unit status.
	3.8.3.1 Actions a&b Incorporated the phrase 'Division I or	This phrase has been incorporated to delineate the fact that ACTIONS a & b do not apply to



Tech Spec	Change	Justification
	Division II'.	those power distribution systems associated with diesel generator E. Diesel generator E's power distribution system has its own specific ACTION statements.
	3.8.3.1 Actions f, g and h 3.8.3.2 Actions g, h and i	These new action statements provide restriction upon continued operation of the facility commensurate with the level of degradation. They are consistent with the existing ACTIONS for diesel generators A, B, C, and D.
3.8.4.2	Specification retitled to read "Motor Operated Valves Thermal Overload Protection-Continuous" and renumbered as 3.8.4.2.1. Reference to Table 3.8.4.2-1 renumbered. Surveillances 4.8.4.2.1 & 4.8.4.2.2 renumber consistent with renumbering of specification.	The diesel generator E, ESW valves thermal overload protection is in some instances bypassed continuously and in other instances automatically. This specification details the requirements for continuous bypass and a new specification 3.8.4.2.2 addresses automatic bypass.
	Applicability Statement - incorporated the phrase 'unless otherwise specified'.	This phrase has been added to clarify changes to Table 3.8.4.2.1-1.
	Table 3.8.4.2.1-1 - Renumbered, Incorporated ESW valves associated with diesel generator E and added an asterisk footnote which states "Continuous bypass not required when corresponding diesel generator is not aligned to the Class 1E distribution system".	Table renumbered for consistency. When an existing diesel generator is not connected to the Class 1E distribution system there is no reason to require thermal overload protection bypass of it's associated ESW valves. Since under the condition, the valves do not provide a safety function. Bypass would be initiated prior to returning the corresponding diesel generator to service.

Tech Spec	Change	Justification
3.8.4.2.2 (NEW)	3.8.4.2.2 - Actions A & B	The ESW system cannot provide cooling to 5 diesel generators. Therefore when diesel generator E is not aligned to the Class 1E distribution system - in which case it can be operated for testing thus requiring ESW - it is essential that adequate ESW be available to diesels A, B, C or D in the event one or all of them receive an actuation signal. To provide this margin of safety, thermal overload protection of the ESW valves associated with diesel generator E is automatically bypassed thus ensuring those valves will close should the existing diesel receive a start signal.
	4.8.4.2.2.1	Consistent with existing technical specification.
B 3/4.8	Added wording for clarity.	Incorporated the current plant configuration i.e. five diesel generators.

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