

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	<p>A.2 Declare required feature(s) with no offsite power available inoperable when the redundant required feature(s) are inoperable.</p> <p><u>AND</u></p> <p>A.3 Restore required offsite circuit to OPERABLE status.</p>	<p>24 hours from discovery of no offsite power to one division concurrent with inoperability of redundant required feature(s)</p> <p>72 hours</p> <p><u>AND</u></p> <p>6 days from discovery of failure to meet LCO</p>
B. One required EDG inoperable.	<p>B.1 Perform SR 3.8.1.1 for OPERABLE required offsite circuit(s).</p> <p><u>AND</u></p>	<p>1 hour</p> <p><u>AND</u></p> <p>Once per 8 hours thereafter</p> <p>(continued)</p>

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.2 Declare required feature(s), supported by the inoperable EDG, inoperable when the redundant required feature(s) are inoperable.	4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	
	B.3.1 Determine OPERABLE EDG(s) are not inoperable due to common cause failure.	24 hours
	<u>OR</u>	
	B.3.2 Perform SR 3.8.1.2 for OPERABLE EDG(s).	24 hours
	<u>AND</u>	
	B.4.1 Restore required EDG to OPERABLE status.	72 hours
	<u>OR</u>	<u>AND</u>
	<u>OR</u>	6 days from discovery of failure to meet LCO
	-----NOTE----- Action B.4.2 is only applicable when DIV III EDG is inoperable -----	
	B.4.2 Declare the high - pressure core spray (HPCS) system inoperable.	72 hours

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>C. Two required offsite circuits inoperable.</p>	<p>C.1 Declare required feature(s) with no offsite power available inoperable when the redundant required feature(s) are inoperable.</p> <p><u>AND</u></p> <p>C.2 Restore one required offsite circuit to OPERABLE status.</p>	<p>12 hours from discovery of Condition C concurrent with inoperability of redundant required feature(s)</p> <p>24 hours</p>
<p>D. One required offsite circuit inoperable.</p> <p><u>AND</u></p> <p>One required DIV I or DIV II EDG inoperable.</p>	<p>-----NOTE----- Enter applicable Conditions and Required Actions of LCO 3.8.7, "Distribution Systems - Operating," when Condition D is entered with no AC power source to any division. -----</p> <p>D.1 Restore required offsite circuit to OPERABLE status.</p> <p><u>OR</u></p> <p>D.2 Restore required EDG to OPERABLE status.</p>	<p>12 hours</p> <p>12 hours</p>

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. One required offsite circuit inoperable</p> <p><u>AND</u></p> <p>DIV III EDG inoperable</p>	<p>-----NOTE-----</p> <p>Enter applicable conditions and Required Actions of LCO 3.8.7 “Distribution system operating”, when condition E is entered with no AC power source to DIV III.</p> <p>-----</p> <p>E.1 Take required Actions of condition A and B.</p>	<p>Immediately</p>
<p>F. Two required EDGs inoperable.</p>	<p>F.1 Restore one required EDG to OPERABLE status.</p>	<p>2 hours</p> <p><u>OR</u></p> <p>24 hours if DIV III EDG is inoperable</p>
<p>G. Required Action and Associated Completion Time of Condition A, B, C, D, or E, or F not met.</p>	<p>G.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>G.2 Be in MODE 4.</p>	<p>12 hours</p> <p>36 hours</p>
<p>H. Three or more required AC sources inoperable.</p>	<p>H.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.1.1	Verify correct breaker alignment and indicated power availability for each required offsite circuit.	7 days
SR 3.8.1.2	<p>-----NOTE-----</p> <p>All EDG starts may be preceded by an engine prelube period and followed by a warmup period prior to loading.</p> <p>-----</p> <p>Verify each EDG starts from standby conditions and achieves steady state condition within 10 seconds: voltage ≥ 3744 V and ≤ 4576 V; and for DIV I, II, and III EDGs: frequency ≥ 58.8 Hz and ≤ 61.2 Hz, and for 5th EDG: frequency ≥ 61.2 Hz and ≤ 63Hz, within 10 seconds after the start signal.</p>	As specified in Table 3.8.1-1

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.3 -----NOTES-----</p> <ol style="list-style-type: none"> 1. EDG loadings may include gradual loading as recommended by the manufacturer. 2. Momentary transients outside the load range do not invalidate this test. 3. This Surveillance shall be conducted on only one EDG at a time. 4. This SR shall be preceded by, and immediately follow, without shutdown, a successful performance of SR 3.8.1.2. <p>-----</p> <p>Verify each EDG is synchronized and loaded and operates for ≥ 60 minutes at a load ≥ 3250kw for DIV I EDG, ≥ 3300kw for DIV II EDG, ≥ 3600kw for 5th EDG, and ≥ 2100kw for DIV III EDG.</p>	<p>As specified in Table 3.8.1-1</p>
<p>SR 3.8.1.4 Verify each day tank contains ≥ 1097.8 liters (290 gal) of fuel oil for DIV I and II; ≥ 2000 liters (529 gal) for 5th EDG, and ≥ 1241.6 liters (328 gal) for DIV III.</p>	<p>31 days</p>
<p>SR 3.8.1.5 Check for and remove accumulated water from each day tank.</p>	<p>31 days</p>
<p>SR 3.8.1.6 Verify the fuel oil transfer system operates to automatically transfer fuel oil from the storage tank to the day tank.</p>	<p>92 days</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.7 -----NOTE----- This surveillance shall not normally be performed in Mode 1 or 2. However, this Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR. ----- Verify manual transfer of power supply from the normal offsite circuit to each required alternate offsite circuit.</p>	<p>18 months</p>
<p>SR 3.8.1.8 -----NOTES----- 1. This Surveillances shall not normally be performed in MODE 1 or 2. However, this Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR. 2. If performed with EDG synchronized with offsite power, it shall be performed at a power factor ≤ 0.9. However, if grid conditions do not permit, the power factor limit is not required to be met. Under this condition the power factor shall be maintained as close to the limit as practicable. -----</p>	<p>(continued)</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.8 (continued)</p> <p>Verify each EDG rejects a load greater than or equal to its associated single largest post – accident load for DIV I, DIV II , DIV III , and 5th EDGs :</p> <p>a. Following load rejection, the frequency is ≤ 66.8 Hz;</p> <p>For DIV I,II or 5th EDG:</p> <p>b. Within 3 seconds following load rejection, the voltage is recovered to ≥ 3744 V and ≤ 4576 V; and</p> <p>c. Within 3 seconds following load rejection, the frequency is recovered to ≥ 58.8Hz and ≤ 61.2Hz for DIV I,II EDGs and ≥ 58.8Hz and ≤ 63Hz for 5th EDG</p> <p>For DIV III EDG:</p> <p>b. After the load rejection transient is over, the voltage is maintained at ≥ 3744 V and ≤ 4576 V; and the frequency is ≥ 58.8Hz and ≤ 61.2Hz.</p>	<p>18 months</p> <p style="text-align: right;"> 3</p> <p style="text-align: right;"> 3</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.9 -----NOTE-----</p> <ol style="list-style-type: none"> 1. This Surveillances shall not normally be performed in MODE 1 or 2. However, this Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR. 2. If performed with EDG synchronized with offsite power, it shall be performed at a power factor ≤ 0.9. However, if grid conditions do not permit, the power factor limit is not required to be met. Under this condition the power factor shall be maintained as close to the limit as practicable. <p>-----</p> <p>Verify each EDG operating at a power factor 0.9 does not trip and voltage is maintained $\leq 4800V$ during and following a load rejection of a load ≥ 3250 kw for DIV I EDG, ≥ 3300 kw for DIV II EDG, ≥ 3600 kw for 5th EDG., and ≥ 2100 kw for DIV III EDG.</p>	<p>18 months</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.10 -----NOTES-----</p> <ol style="list-style-type: none"> 1. All EDG starts may be preceded by an engine prelube period. 2. This Surveillance shall not be performed in MODE 1, 2, or 3. However, portions of the Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR. <p>-----</p> <p>Verify on an actual or simulated loss of offsite power signal:</p> <ol style="list-style-type: none"> a. De-energization of emergency buses; b. Load shedding from emergency buses (except for DIV III EDG); and c. EDG auto - starts from standby condition and: <ol style="list-style-type: none"> 1. Energizes permanently connected loads in ≤ 10 seconds, 2. Energizes auto-connected shutdown loads through automatic load sequencer (expect for DIV III EDG), 3. After automatic loading, maintains steady state voltage ≥ 3744 V and ≤ 4576 V, 4. Maintains steady state frequency ≥ 58.8 Hz and ≤ 61.2 Hz, for DIV I, II and III EDGs, and ≥ 58.8 Hz and ≤ 63 Hz for 5th EDG, 5. Supplies permanently connected and auto-connected shutdown loads for ≥ 5 minutes. 	<p>18 months</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.11 -----NOTES-----</p> <ol style="list-style-type: none"> 1. All EDG starts may be preceded by an engine prelube period. 2. This Surveillance shall not normally be performed in MODE 1 or 2. However, portions of the Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR. <p>-----</p> <p>Verify on an actual or simulated Emergency Core Cooling System (ECCS) initiation signal each EDG auto-starts from standby condition and:</p> <ol style="list-style-type: none"> a. In ≤ 10 seconds after auto-start and during tests, achieves voltage $\geq 3744V$ and $\leq 4576V$; b. In ≤ 10 seconds after auto-start and during tests, achieves frequency $\geq 58.8Hz$ and $\leq 61.2Hz$ for DIV I, DIV II, DIV III EDGs; and $\geq 61.2Hz$ and $\leq 63Hz$ for 5th EDG. c. Maintain EDG operate for ≥ 5 minutes; d. Permanently connected loads remain energized from the offsite power system; and e. Emergency loads are automatically energized or auto-connected through the automatic load sequencer to from the offsite power system. 	<p>18 months</p>

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SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.12A -----NOTE----- This Surveillance shall not be performed in MODE 1, 2, or 3. However, this Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR. ----- Verify each EDG's automatic trips are bypassed on actual or simulated ECCS initiation signal except: for DIV I, II and III EDGs :</p> <ul style="list-style-type: none"> a. Engine overspeed; and b. Generator differential current; <p>for 5th EDG:</p> <ul style="list-style-type: none"> a. Engine overspeed; b. Generator differential current; and c. Low gear lube oil pressures; 	<p>18 months</p>

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SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.12B -----NOTE----- This Surveillance shall not be performed in MODE 1, 2, or 3. However, this Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that Satisfy this SR. ----- Verify each EDG's electrical protections are bypassed on actual or simulated loss of voltage signal on the emergency bus except: For DIV I, II, III EDGs only</p> <ul style="list-style-type: none"> a. Generator differential current, and b. Over current with voltage restraint. 	<p>18 months</p>

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SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.13 -----NOTES-----</p> <ol style="list-style-type: none"> 1. Momentary transients outside the load and power factor ranges do not invalidate this test. 2. This Surveillance shall not normally be performed in MODE 1 or 2. However, this Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR. This note is only applicable to DIV III EDG . 3. If performed with EDG synchronized with offsite power, it shall be performed at a power factor ≤ 0.9 However, if grid conditions do not permit, the power factor limit is not required to be met. Under this condition the power factor shall be maintained as close to the limit as practicable. <p>-----</p> <p>Verify each EDG operates for ≥ 24 hours:</p> <ol style="list-style-type: none"> a. For ≥ 2 hours loaded, ≥ 3600 kW for DIV I and II EDGs, ≥ 2300 kW for DIV III EDG , and ≥ 3960 kW for 5th EDG, and b. For the remaining hours of the test loaded ≥ 3250 kw for DIV I EDG, ≥ 3300kw for DIV II EDG, ≥ 3600kw for 5th EDG and ≥ 2100kw for DIV III EDG 	<p style="text-align: right;">1</p> <p>18 months</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.14 -----NOTES-----</p> <ol style="list-style-type: none"> 1. This Surveillance shall be performed within 5 minutes of shutting down the EDG after the EDG has operated at continuous rating for ≥ 2 hours or until operating temperatures have stabilized. <p style="margin-left: 40px;">Momentary transients outside of load range do not invalidate this test.</p> <ol style="list-style-type: none"> 2. All EDG start may be preceded by an engine prelube period. <p>-----</p> <p>Verify each EDG starts and achieves:</p> <ol style="list-style-type: none"> a. In ≤ 10 seconds, voltage ≥ 3744 V and frequency ≥ 58.8 Hz for DIV I, II and III EDGs and ≥ 61.2Hz for 5th EDG, and b. Steady state voltage ≥ 3744 V and ≤ 4576 V and frequency ≥ 58.8 Hz and ≤ 61.2Hz for DIV I, II and III EDGs, and ≥ 61.2Hz and ≤ 63Hz for 5th EDG. 	<p>18 months</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.15 -----NOTE----- This Surveillance shall not normally be performed in MODE 1, 2, or 3. However, this Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR. ----- Verify each EDG:</p> <ul style="list-style-type: none"> a. Synchronizes with offsite power source while loaded with emergency loads upon a simulated restoration of offsite power, b. Transfers loads to offsite power source, and c. Returns to ready-to-load operation. 	<p>18 months</p>
<p>SR 3.8.1.16 -----NOTE----- This Surveillance shall not normally be performed in MODE 1, 2, or 3. However, portions of the Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR. ----- Verify, with a EDG operating in test mode and connected to its bus, an actual or simulated ECCS initiation signal overrides the test mode by:</p> <ul style="list-style-type: none"> a. Returning EDG to ready-to-load operation and b. Automatically energizing the emergency load from offsite power. 	<p>18 months</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.17 -----NOTE-----</p> <p>This Surveillance shall not normally be performed in MODE 1, 2, or 3. However, this Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR.</p> <p>-----</p> <p>For DIV I, II and 5th EDGs only:</p> <p>Verify interval between each sequenced load block is within 10% of design interval for each load sequencer time.</p>	<p>18 months</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.18 -----NOTES-----</p> <ol style="list-style-type: none"> 1. All EDG starts may be preceded by an engine prelube period. 2. This Surveillance shall not normally be performed in MODE 1, 2, or 3. However, portions of the Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced. Credit may be taken for unplanned events that satisfy this SR. <p>-----</p> <p>Verify, on an actual or simulated loss of offsite power signal in conjunction with an actual or simulated ECCS initiation signal:</p> <ol style="list-style-type: none"> a. De-energization of emergency buses; b. Load shedding from emergency buses (except DIV III EDG), and: c. EDG auto-starts from standby condition and: <ol style="list-style-type: none"> 1. Energizes permanently connected loads in ≤ 10 seconds, 2. Energizes auto-connected emergency loads through load sequencer (except for DIV III EDG.), 3. After automatic loading achieves steady state voltage ≥ 3744 V and ≤ 4576 V, 4. Achieves steady state frequency ≥ 58.8Hz and ≤ 61.2Hz for DIV I, II, and III EDGs, and ≥ 61.2 Hz and ≤ 63Hz for 5th EDG, and 5. Supplies permanently connected and auto-connected emergency loads for ≥ 5 minutes. 	<p>18 months</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.19 -----NOTE----- All EDG starts may be preceded by an engine prelude period. ----- Verify, when started simultaneously from standby condition, each EDG achieves steady state condition, in ≤ 10 seconds, voltage $\geq 3744V$ and $\leq 4576 V$ and frequency $\geq 58.8Hz$ and $\leq 61.2Hz$ for DIV I, II, and III EDGs, and $\geq 61.2 Hz$ and $\leq 63Hz$ for 5th EDG.</p>	<p>10 years</p>

Table 3.8.1-1 (page 1 of 1)
Diesel Generator Test Schedule

NUMBER OF FAILURES IN LAST 25 VALID TESTS ^(a)	FREQUENCY
≤ 3	31 days
≥ 4	7 days ^(b) (but ≥ 24 hours)

(a) Criteria for determining number of failures and valid tests shall be in accordance with Regulatory Position C.2.1 of Regulatory Guide 1.9, Revision 4, where the number of tests and failures is determined on a per EDG basis.

(b) This test frequency shall be maintained until seven consecutive failure free starts from standby conditions and load and run tests have been performed. If, subsequent to the 7 failure free tests, 1 or more additional failures occur such that there are again 4 or more failures in the last 25 tests, the testing interval shall again be reduced as noted above and maintained until 7 consecutive failure free tests have been performed.

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3.8 ELECTRICAL POWER SYSTEMS

3.8.2 AC Sources - Shutdown

LCO 3.8.2 The following AC electrical power sources shall be OPERABLE:

-----NOTE-----
Specification 5.8 shall be met

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- a. One qualified circuit between the offsite transmission network and the onsite Class 1E AC electrical power distribution subsystem(s) required by LCO 3.8.8, "Distribution Systems - Shutdown"; and
- b. One diesel generator (EDG) capable of supplying one division of the DIV I or II onsite Class 1E AC electrical power distribution subsystem(s) required by LCO 3.8.8; and
- c. The DIV III EDG capable of supplying the DIV III onsite Class 1E AC electrical power distribution subsystem when the DIV III onsite Class 1E electrical power distribution subsystem is required by LCO 3.8.8.

APPLICABILITY: MODES 4 and 5.

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. LCO Item a. not met.</p>	<p>-----NOTE----- Enter applicable Condition and Required Actions of LCO 3.8.8, with one required division de-energized as a result of Condition A. -----</p> <p>A.1 Declare affected required feature(s) with no offsite power available inoperable.</p> <p><u>OR</u></p> <p>A.2.1 Suspend CORE ALTERATIONS.</p> <p><u>AND</u></p> <p>A.2.2 Suspend movement of irradiated fuel assemblies and heavy loads over irradiated fuel assemblies in the primary containment and in the fuel building.</p> <p><u>AND</u></p> <p>A.2.3 Initiate action to suspend operations with a potential for draining the reactor vessel (OPDRVs).</p> <p><u>AND</u></p> <p>A.2.4 Initiate action to restore required offsite power circuit to OPERABLE status.</p>	<p>Immediately</p> <p>Immediately</p> <p>Immediately</p> <p>Immediately</p> <p>Immediately</p>

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. LCO Item b. not met.</p>	<p>B.1 Suspend CORE ALTERATIONS.</p> <p><u>AND</u></p>	<p>Immediately</p>
	<p>B.2 Suspend movement of irradiated fuel assemblies and heavy loads over irradiated fuel assemblies in primary containment and fuel building.</p> <p><u>AND</u></p>	<p>Immediately</p>
	<p>B.3 Initiate action to suspend OPDRVs.</p> <p><u>AND</u></p>	<p>Immediately</p>
	<p>B.4 Initiate action to restore required EDG to OPERABLE status.</p>	<p>Immediately</p>
<p>C. LCO Item c. not met.</p>	<p>C.1 Declare HPCS inoperable.</p>	<p>72 hours</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.2.1 -----NOTE-----</p> <p>The following SRs are not required to be performed: SR 3.8.1.3, SR 3.8.1.8 through SR 3.8.1.10, SR 3.8.1.12 through SR 3.8.1.15, SR 3.8.1.17, and SR 3.8.1.18.</p> <p>-----</p> <p>For AC sources required to be OPERABLE, the SRs of Specification 3.8.1, except SR 3.8.1.7, SR 3.8.1.16, and SR 3.8.1.19, are applicable.</p>	<p>In accordance with applicable SRs</p>

3.8 ELECTRICAL POWER SYSTEMS

3.8.3 Diesel Fuel Oil, Lube Oil, and Starting Air

LCO 3.8.3 The stored diesel fuel oil, lube oil, and starting air subsystem shall be within limits for each required diesel generator (EDG).

APPLICABILITY: When associated EDG is required to be OPERABLE.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each EDG.

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One or more EDGs with fuel oil level:</p> <p>1. DIV I, or II EDG < 170415.8 liters and \geq 146100 liters;</p> <p>2. For DIV III EDG < 104087.5 liters and \geq 89300 liters; and</p> <p>3. For 5th EDG < 210150 liters and \geq 180200 liters</p>	<p>A.1 Restore fuel oil level to within limits.</p>	48 hours

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. One or more EDGs with lube oil level:</p> <ol style="list-style-type: none"> 1. For DIV I / II EDG, < 59 cm and > 53 cm; 2. For DIV 3 EDG, < 22 cm and > 12 cm; and 3. For 5th EDG oil sump tank, < 13 cm and > 10 cm 	<p>B.1 Restore lube oil level to within limits.</p>	48 hours
<p>C. One or more EDGs with stored fuel oil total particulates not within limit.</p>	<p>C.1 Restore fuel oil total particulates to within limit.</p>	7 days
<p>D. One or more EDGs with new fuel oil properties not within limits.</p>	<p>D.1 Restore stored fuel oil properties to within limits.</p>	30 days

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. One or more EDGs with starting air receiver pressure</p> <p><14.06 kg/cm² (200psig) and ≥ 10.55 kg /cm² (150psig) for DIV I, II EDGs;</p> <p><14.06 kg/cm² (200psig) and ≥ 8.45 kg /cm² (120psig) for DIV III EDG; and</p> <p>< 30 kg/cm² (427psig) and ≥ 17 kg/cm² (241psig) for 5th EDG.</p>	<p>E.1 Restore starting air receiver pressure to</p> <p style="padding-left: 40px;">≥ 14.06 kg/cm² (200 psig) for DIV I, II and III EDGs, and</p> <p style="padding-left: 40px;">≥ 30 kg/cm² (427 psig) for 5th EDG</p>	<p>48 hours</p> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 100px;"> <div style="border-left: 1px solid black; height: 40px; width: 10px;"></div> <div style="margin-left: 5px;">2</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 100px;"> <div style="border-left: 1px solid black; height: 40px; width: 10px;"></div> <div style="margin-left: 5px;">2</div> </div>
<p>F. Required Actions and associated Completion Time not met.</p> <p><u>OR</u></p> <p>One or more EDGs with diesel fuel oil, lube oil, or starting air subsystem not within limits for reasons other than Condition A, B, C, D, or E.</p>	<p>F.1 Declare associated EDG inoperable.</p>	<p>Immediately</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.3.1 Verify each fuel oil storage tank contains:</p> <p style="margin-left: 40px;">a. ≥ 170415.8 liters (45024 gal) of fuel for DIV I, II EDGs</p> <p style="margin-left: 40px;">b. ≥ 104087.5liters (27500 gal) of fuel for DIV III EDG.</p> <p style="margin-left: 40px;">c. ≥ 210150 liters (55516gal) of fuel for 5th EDG.</p>	31 days
<p>SR 3.8.3.2 Verify lube oil level is:</p> <p style="margin-left: 40px;">a. ≥ 59 cm for DIV I and DIV II EDG and</p> <p style="margin-left: 40px;">b. ≥ 22 cm for DIV III EDG.</p> <p style="margin-left: 40px;">c. ≥ 13 cm for 5th EDG. Oil sump tank</p>	31 days
<p>SR 3.8.3.3 Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.</p>	In accordance with the Diesel Fuel Oil Testing Program
<p>SR 3.8.3.4 Verify each EDG air start receiver pressure is ≥ 14.06 kg/cm² (200psig) for DIV I, II AND III EDGs, and ≥ 30kg/cm² (427 psig) for 5th EDG.</p>	31 days
<p>SR 3.8.3.5 Check for and remove accumulated water from each fuel oil storage tank.</p>	31 days

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.3.6 For each fuel oil storage tank: a. Drain the fuel oil; b. Remove the sediment; and c. Clean the tank.	10 years

3.8 ELECTRICAL POWER SYSTEMS

3.8.4 DC Sources - Operating

LCO 3.8.4 The Division I, Division II, and Division III DC electrical power subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Division I or II DC electrical power subsystem inoperable.	A.1 Restore Division I and II DC electrical power subsystems to OPERABLE status.	2 hours
B. Division III DC electrical power subsystem inoperable.	B.1 Declare High Pressure Core Spray System inoperable.	Immediately
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	12 hours
	<u>AND</u> C.2 Be in MODE 4.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.4.1	Verify battery terminal voltage is ≥ 132.0 V on float charge.	7 days
SR 3.8.4.2	Verify no visible corrosion at battery terminals and connectors. OR Verify battery connection resistance is $\leq 20\%$ resistance increase at the time of installation or within the manufacturer's recommended limit for inter-cell connections, inter-rack connections, inter-tier connections, and terminal connections.	92 days
SR 3.8.4.3	Verify battery cells, cell plates, and racks show no visual indication of physical damage or abnormal deterioration.	18 months
SR 3.8.4.4	Remove visible corrosion and verify battery cell to cell and terminal connections are clean and tight, and coated with anti-corrosion material.	18 months
SR 3.8.4.5	Verify battery connection resistance is $\leq 20\%$ increase at the time of installation or within the manufacture's recommended limit for inter-cell connections, inter-rack connections, inter-tier connections, and terminal connections.	18 months

(continued)

VSURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.4.6 [Note of SR 3.8.4.6 was deleted per TSC-KS1/2-488-1]</p> <p style="padding-left: 40px;">Verify Division I and II battery charger supplies ≥ 150 amps at ≥ 130.2 V for ≥ 4 hours,</p> <p style="padding-left: 40px;">verify Division III battery charger supplies ≥ 50 amps at ≥ 130.2V for ≥ 2 hours, and</p> <p style="padding-left: 40px;">verify 5th EDG battery charger supplies ≥ 100 amps at ≥ 130.2V for ≥ 4 hours.</p>	<p>18 months</p>
<p>SR 3.8.4.7 -----NOTES-----</p> <ol style="list-style-type: none"> 1. The modified performance discharge test in SR 3.8.4.8 may be performed in lieu of the service test in SR 3.8.4.7 once per 60 months. 2. This Surveillance shall not be performed in MODE 1, 2, or 3. However, credit may be taken for unplanned events that satisfy this SR. <p>-----</p> <p style="padding-left: 40px;">Verify battery capacity is adequate to supply, and maintain in OPERABLE status, the required emergency loads for the design duty cycle when subjected to a battery service test.</p>	<p>18 months</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.4.8 -----NOTE----- This Surveillance shall not be performed in MODE 1, 2, or 3. However, credit may be taken for unplanned events that satisfy this SR. ----- Verify battery capacity is $\geq 80\%$ of the manufacturer's rating when subjected to a performance discharge test or a modified performance discharge test.</p>	<p>60 months</p> <p><u>AND</u></p> <p>12 months when battery shows degradation or has reached 85% of expected life with capacity < 100% of manufacturer's rating 5</p> <p><u>AND</u></p> <p>24 months when battery has reached 85% of the expected life with capacity $\geq 100\%$ of manufacturer's rating 5</p>

3.8 ELECTRICAL POWER SYSTEMS

3.8.5 DC Sources - Shutdown

LCO 3.8.5 DC electrical power subsystem(s) shall be OPERABLE to support the electrical power distribution subsystem(s) required by LCO 3.8.8, "Distribution Systems - Shutdown."

APPLICABILITY: MODES 4, and 5,

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One or more required DC electrical power subsystems inoperable.</p>	<p>A.1 Declare affected required feature(s) inoperable.</p> <p><u>OR</u></p>	<p>Immediately</p>
	<p>A.2.1 Suspend CORE ALTERATIONS.</p> <p><u>AND</u></p>	<p>Immediately</p>
	<p>A.2.2 Suspend movement of irradiated fuel assemblies in the primary containment, and fuel building.</p> <p><u>AND</u></p>	<p>Immediately</p>
	<p>A.2.3 Suspend movement of heavy load over the irradiated fuel assemblies in the primary containment and in the fuel building.</p> <p><u>AND</u></p>	<p>Immediately</p> <p>(continued)</p>

3.8 ELECTRICAL POWER SYSTEMS

3.8.6 Battery Cell Parameters

LCO 3.8.6 Battery cell parameters for the Division I, II, III, and 5th EDG batteries shall be within the limits of Table 3.8.6-1.

APPLICABILITY: When associated DC electrical power subsystems are required to be OPERABLE.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each battery.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more batteries with one or more battery cell parameters not within Category A or B limits.	A.1 Verify pilot cells electrolyte level and float voltage meet Table 3.8.6-1 Category C limits.	1 hour
	<p style="text-align: center;"><u>AND</u></p> A.2. Verify battery cell parameters meet Table 3.8.6-1 Category C limits.	24 hours <u>AND</u> Once per 7 days thereafter
	<p style="text-align: center;"><u>AND</u></p> A.3 Restore battery cell parameters to Category A and B limits of Table 3.8.6 -1.	31 days

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. Required Action and associated Completion Time of Condition A not met.</p> <p><u>OR</u></p> <p>One or more batteries with average electrolyte temperature of the pilot cells < 15.6°C (60°F).</p> <p><u>OR</u></p> <p>One or more batteries with one or more battery cell parameters not within Category C values.</p>	<p>B.1 Declare associated battery inoperable.</p>	<p>Immediately</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.6.1	Verify each pilot battery cell parameters meet Table 3.8.6-1 Category A limits.	7 days
SR 3.8.6.2	Verify battery cell parameters meet Table 3.8.6-1 Category B limits.	92 days <u>AND</u> Once within 24 hours after battery discharge < 110 V <u>AND</u> Once within 24 hours after battery overcharge > 150 V
SR 3.8.6.3	Verify average electrolyte temperature of pilot cells is $\geq 15.6^{\circ}\text{C}$ (60°F)	92 days

Table 3.8.6-1 (page 1 of 1)

Battery Cell Parameter Requirements

PARAMETER	CATEGORY A: LIMITS FOR EACH DESIGNATED PILOT CELL	CATEGORY B: LIMITS FOR EACH CONNECTED CELL	CATEGORY C: ALLOWABLE LIMITS FOR EACH CONNECTED CELL
Electrolyte Level	> Minimum level indication mark, and \leq 1/4 inch above maximum level indication mark ^(a)	> Minimum level indication mark, and \leq 1/4 inch above maximum level indication mark ^(a)	Above top of plates, and not overflowing
Float Voltage	\geq 2.13 V	\geq 2.13 V	> 2.07 V
Specific Gravity ^{(b)(c)}	\geq 1.200	\geq 1.195 <u>AND</u> Average of all connected cells > 1.205	Not more than 0.020 below average of all connected cells <u>AND</u> Average of all connected cells \geq 1.195

- (a) It is acceptable for the electrolyte level to temporarily increase above the specified maximum level during equalizing charges provided it is not overflowing.
- (b) Corrected for electrolyte temperature and level. Level correction is not required, however, when battery charging is < 2 amps when on float charge.
- (c) A battery charging current of < 2 amps when on float charge is acceptable for meeting specific gravity limits following a battery recharge, for a maximum of 7 days. When charging current is used to satisfy specific gravity requirements, specific gravity of each connected cell shall be measured prior to expiration of the 7 days allowance.

3.8 ELECTRICAL POWER SYSTEMS

3.8.7 Distribution Systems-Operating

LCO 3.8.7 Division I, Division II and Division III AC and DC electrical power distribution subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

-----NOTE-----
Division III electrical power distribution subsystems are not required to be OPERABLE when High Pressure Core Spray System is inoperable.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One Division I or II AC electrical power distribution subsystem inoperable.	A.1 Restore Division I and II AC electrical power distribution subsystems to OPERABLE status.	8 hours <u>AND</u> 16 hours from discovery of failure to meet LCO
B. Division I or II DC electrical power distribution subsystem inoperable.	B.1 Restore Division I and II DC electrical power distribution subsystems to OPERABLE status.	2 hours <u>AND</u> 16 hours from discovery of failure to meet LCO

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A, or B not met.	C.1 Be in MODE 3.	12 hours
	<u>AND</u> C.2 Be in MODE 4.	36 hours
D. One or more Division III AC or DC electrical power distribution subsystems inoperable.	D.1 Declare High Pressure Core Spray System inoperable.	Immediately
E. Two or more inoperable distribution subsystems in both Division I and II that result in a loss of function.	E.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.7.1 Verify correct breaker alignments and voltage to required AC and DC electrical power distribution subsystem.	7 days

3.8 ELECTRICAL POWER SYSTEMS

3.8.8 Distribution Systems - Shutdown

LCO 3.8.8 The necessary portions of the Division I, Division II, and Division III AC and DC electrical power distribution subsystems shall be OPERABLE to support equipment required to be OPERABLE.

APPLICABILITY: MODES 4 and 5

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. One or more required AC or DC electrical power distribution subsystems inoperable.</p>	<p>A.1 Declare associated supported required feature(s) inoperable. <u>OR</u></p>	<p>Immediately</p>
	<p>A.2.1 Suspend CORE ALTERATIONS. <u>AND</u></p>	<p>Immediately</p>
	<p>A.2.2 Suspend handling of irradiated fuel assemblies in the primary containment and fuel building. <u>AND</u></p>	<p>Immediately</p>
	<p>A.2.3 Suspend handling of heavy load over the irradiated fuel assemblies in the primary containment and fuel building. <u>AND</u></p>	<p>Immediately</p> <p style="text-align: right;">(continued)</p>

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.2.4 Initiate action to suspend operations with a potential for draining the reactor vessel. <u>AND</u>	Immediately
	A.2.5 Initiate actions to restore required AC and DC electrical power distribution subsystems to OPERABLE status. <u>AND</u>	Immediately
	A.2.6 Declare associated required shutdown cooling subsystem(s) inoperable and not in operation.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.8.1 Verify correct breaker alignments and voltage to required AC and DC electrical power distribution subsystems.	7 days

3.8 ELECTRICAL POWER SYSTEMS

3.8.9 The 5th Diesel Generator Electrical support system

LCO 3.8.9 The 5th Diesel Generator support Electrical system shall be OPERABLE.

APPLICABILITY: When 5th Diesel Generator is required to be OPERABLE.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required AC, DC Sources or distribution support subsystem inoperable.	A.1 Declare the 5 th Diesel Generator inoperable. <u>AND</u>	Immediately
	A.2 Enter applicable Conditions and required Action of LCO 3.8.1 and LOC 3.8.2, for “AC sources-Operating” and “AC source-Shutdown.”	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.9.1	For 5 th Diesel Generator required to be OPERABLE, the SRs of Specification 3.8.4, “DC Sources-Operating” or 3.8.5, “DC sources-Shutdown”, are applicable.	In accordance with applicable SRs.
SR 3.8.9.2	For 5 th Diesel Generator required to be OPERABLE, the SRs of Specification 3.8.6, “Battery Cell Parameters”, are applicable.	In accordance with applicable SRs
SR 3.8.9.3	For 5 th Diesel Generator required to be OPERABLE, the SR of Specification 3.8.7, “Distribution Systems-Operating” or 3.8.8, “Distribution Systems-Shutdown”, are applicable.	In accordance with applicable SR