

ATTACHMENT A

MARKED-UP TSUP PAGES

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3.9 - LIMITING CONDITIONS FOR OPERATION

- b. Restore the inoperable offsite circuit to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

- 2. With one of the above required diesel generator power sources inoperable:
 - a. Demonstrate the OPERABILITY of the offsite circuit power sources by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

 - b. If the diesel generator is inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.9.A.2.c^(b) within 24 hours unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated (if it has not been successfully tested within the past 24 hours) and within the subsequent 72 hours, and

4.9 - SURVEILLANCE REQUIREMENTS

- c. Verifying^(c) the diesel starts and accelerates to synchronous speed with generator voltage and frequency at 4160 ± 420 volts and 60 ± 1.2 Hz, respectively.

- d. Verifying the diesel generator is synchronized, loaded to between ~~2375 and 2500 kW^(d)~~ in accordance with the manufacturer's/vendor's recommendations, and operates with this load for ≥ 60 minutes.

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

- f. Verifying the pressure in required starting air receiver tanks to be ≥ 230 psig.

- 3. Each of the required diesel generators shall be demonstrated OPERABLE at least once per 31 days and after each operation of the diesel where the period of operation was ≥ 1 hour by removing any accumulated water from the day tank.

- 4. Each of the required diesel generators shall be demonstrated OPERABLE at least once per 92 days by checking for and removing accumulated water from the fuel oil bulk storage tanks.

2470 and
2600

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- b. Contrary to the provisions of Specification 3.0.B, this test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY for failures that are potentially generic to the remaining diesel generator and for which appropriate alternative testing cannot be designed.

 - c. Surveillance Requirement 4.9.A.7 may be substituted for Surveillance Requirement 4.9.A.2.c.

 - d. Momentary transients outside of the load range do not invalidate this test. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor. This surveillance shall be conducted on only one diesel generator at a time.

3.9 - LIMITING CONDITIONS FOR OPERATION

5. With two of the above required offsite circuit power sources inoperable:
 - a. 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 and in COLD SHUTDOWN within the following 24 hours.
 - b. Restore at least two offsite circuits to OPERABLE status within 7 days from the 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.

6. With both of the above required diesel generator power sources inoperable:
 - a. Demonstrate the OPERABILITY of the offsite circuit power sources by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

4.9 - SURVEILLANCE REQUIREMENTS

- b. Verifying the diesel generator capability to reject its largest single emergency load (≥ 725 kW) while maintaining frequency ≤ 66.73 Hz and voltage at 4160 ± 420 volts.

- c. Verifying the diesel generator capability to reject a load between 2375 and 2500 kW^(d), without tripping on overspeed. The generator voltage shall not exceed 5000 volts^(g) during or following the load rejection.

- d. Simulating a loss of offsite power by itself, and:
 - 1) Verifying de-energization of the emergency buses, and load shedding from the emergency buses.
 - 2) Verifying the diesel starts on the auto-start signal, energizes the emergency buses with permanently connected loads in ≤ 10 seconds, energizes the auto-connected shutdown loads, and operates with this load for ≥ 5 minutes. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 4160 ± 420 volts and 60 ± 1.2 Hz, respectively, during this test.

2470 and
2600

- d Momentary transients outside of the load range do not invalidate this test. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor. This surveillance shall be conducted on only one diesel generator at a time.
- g Momentary transients outside of the voltage limit do not invalidate this test.

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g. Verifying that all automatic diesel generator trips, except engine overspeed and generator differential current are automatically bypassed upon an emergency actuation signal.

h. Verifying the diesel generator operates for ≥ 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to between 2625 and 2750 kW^(d) and during the remaining 22 hours of this test, the diesel generator shall be loaded to between 2375 and 2500 kW^(d). The generator voltage and frequency shall be 4160 ± 420 volts and 60 ± 1.2 Hz, respectively, in ≤ 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 4.9.A.2.c^(f).

i. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 2850 kW.

2730 and 2860

2470 and 2600

2360

- d. Momentary transients outside of the load range do not invalidate this test. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor. This surveillance shall be conducted on only one diesel generator at a time.
- f. If Surveillance Requirement 4.9.A.2.c is not satisfactorily completed, it is not necessary to repeat the preceding 24 hour test. Instead, the diesel generator may be operated at approximately full load for 2 hours or until the operating temperature has stabilized.

ATTACHMENT B

RETYPED TSUP PAGES

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3.9 - LIMITING CONDITIONS FOR OPERATION

- b. Restore the inoperable offsite circuit to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- 2. With one of the above required diesel generator power sources inoperable:
 - a. Demonstrate the OPERABILITY of the offsite circuit power sources by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.
 - b. If the diesel generator is inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.9.A.2.c^{b)} within 24 hours unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated (if it has not been successfully tested within the past 24 hours) and within the subsequent 72 hours, and

4.9 - SURVEILLANCE REQUIREMENTS

- c. Verifying^{c)} the diesel starts and accelerates to synchronous speed with generator voltage and frequency at 4160 ± 420 volts and 60 ± 1.2 Hz, respectively.
- d. Verifying the diesel generator is synchronized, loaded to between 2470 and 2600 kW^{d)} in accordance with the manufacturer's/vendor's recommendations, and operates with this load for ≥ 60 minutes.
- e. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.
- f. Verifying the pressure in required starting air receiver tanks to be ≥ 230 psig.
- 3. Each of the required diesel generators shall be demonstrated OPERABLE at least once per 31 days and after each operation of the diesel where the period of operation was ≥ 1 hour by removing any accumulated water from the day tank.
- 4. Each of the required diesel generators shall be demonstrated OPERABLE at least once per 92 days by checking for and removing accumulated water from the fuel oil bulk storage tanks.

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- b Contrary to the provisions of Specification 3.0.B, this test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY for failures that are potentially generic to the remaining diesel generator and for which appropriate alternative testing cannot be designed.
 - c Surveillance Requirement 4.9.A.7 may be substituted for Surveillance Requirement 4.9.A.2.c.
 - d Momentary transients outside of the load range do not invalidate this test. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor. This surveillance shall be conducted on only one diesel generator at a time.

3.9 - LIMITING CONDITIONS FOR OPERATION

5. With two of the above required offsite circuit power sources inoperable:
 - a. 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 and in COLD SHUTDOWN within the following 24 hours.
 - b. Restore at least two offsite circuits to OPERABLE status within 7 days from the 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.
6. With both of the above required diesel generator power sources inoperable:
 - a. Demonstrate the OPERABILITY of the offsite circuit power sources by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

4.9 - SURVEILLANCE REQUIREMENTS

- b. Verifying the diesel generator capability to reject its largest single emergency load ($\geq 725 \text{ kW}$) while maintaining frequency $\leq 66.73 \text{ Hz}$ and voltage at $4160 \pm 420 \text{ volts}$.
- c. Verifying the diesel generator capability to reject a load between 2470 and 2600 kW^d, without tripping on overspeed. The generator voltage shall not exceed 5000 volts^g during or following the load rejection.
- d. Simulating a loss of offsite power by itself, and:
 - 1) Verifying de-energization of the emergency buses, and load shedding from the emergency buses.
 - 2) Verifying the diesel starts on the auto-start signal, energizes the emergency buses with permanently connected loads in ≤ 10 seconds, energizes the auto-connected shutdown loads, and operates with this load for ≥ 5 minutes. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at $4160 \pm 420 \text{ volts}$ and $60 \pm 1.2 \text{ Hz}$, respectively, during this test.

d Momentary transients outside of the load range do not invalidate this test. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor. This surveillance shall be conducted on only one diesel generator at a time.

g Momentary transients outside of the voltage limit do not invalidate this test.

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- g. Verifying that all automatic diesel generator trips, except engine overspeed and generator differential current are automatically bypassed upon an emergency actuation signal.
- h. Verifying the diesel generator operates for ≥ 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to between 2625 and 2750 kW^(d) and during the remaining 22 hours of this test, the diesel generator shall be loaded to between 2470 and 2600 kW^(d). The generator voltage and frequency shall be 4160 ± 420 volts and 60 ± 1.2 Hz, respectively, in ≤ 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 4.9.A.2.c^(f).
- i. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 2860 kW.

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- d Momentary transients outside of the load range do not invalidate this test. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor. This surveillance shall be conducted on only one diesel generator at a time.
 - f If Surveillance Requirement 4.9.A.2.c is not satisfactorily completed, it is not necessary to repeat the preceding 24 hour test. Instead, the diesel generator may be operated at approximately full load for 2 hours or until the operating temperature has stabilized.