4.8.1.1.2 (Continued)

b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank obtained in accordance with ASTM-D4176-82, is within the acceptable limits specified in Table 1 of ASTM D975-81 when checked for viscosity, water and sediment.

c. At least once per 184 days the diesel generator shall be started** and accelerated to generator voltage and frequency at 4160 ± 420 volts and 60 ± 1.2 Hz in less than or equal to 10 seconds. The generator voltage and frequency shall be 4160 ± 420 volts and 60 ± 1.2 Hz within 10 seconds after the start signal. The generator shall be manually synchronized to its appropriate emergency bus, loaded to an indicated 5200-5400*** kW in less than or equal to 60 seconds, and operate for at least 60 minutes.

This test, if it is performed so it coincides with the testing required by Surveillance Requirement 4.8.1.1.2.a.4, may also serve to concurrently meet those requirements as well.

d. At least once per 18 months during shutdown 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 generator capability to reject a single largest load of greater than or equal to 839 kW (Train B AFW pump) for emergency diesel generator B or 696 kW for emergency diesel generator A (Train A HPSI pump) while maintaining voltage at 4160 ± 420 volts and frequency at 60 ± 1.2 Hz.

3. Verifying that the automatic load sequencers are OPERABLE with the interval between each load block within ± 1 second of its design interval.

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 starts** on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected shutdown loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is

**This test shall be conducted in accordance with the manufacturer's recommendations regarding engine prelube and warmup procedures, and as applicable regarding loading recommendations.

***This band is meant as guidance to avoid routine overloading of the engine. Loads in excess of this band for special testing under direct monitoring of the manufacturer or momentary variations due to changing bus loads shall not invalidate the test.

4.8.1.1.2 (Continued)

loaded with the shutdown loads. After energization of these loads, the steady state voltage and frequency shall be maintained at 4160 ± 420 volts and 60 + 1.2/-0.3 Hz.

5. Verifying that on an ESF actuation test signal (without loss of power) the diesel generator starts* on the auto-start signal and operates on standby for greater than or equal to 5 minutes.

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

   a) Verifying de-energization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel starts* on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected emergency (accident) loads through the load sequencer, and operates for greater than or equal to 5 minutes and maintains the steady-state voltage and frequency at 4160 ± 420 volts and 60 + 1.2/-0.3 Hz.

   c) Verifying that all automatic diesel generator trips, except engine overspeed, generator differential, and low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus, upon a safety injection actuation signal or upon AFAS.

7. Verifying the diesel generator operates* for at least 24 hours. During the first ~~2~~ 22 hours of this test, the diesel generator shall be loaded to an indicated ~~5800-6000~~ 5200-5400 kW** and during the remaining ~~22~~ 2 hours of this test, the diesel generator shall be loaded to an indicated ~~5200-5400~~ 5800-6000 kW**. Within 5 minutes after completing this 24-hour test, perform Surveillance Requirement 4.8.1.1.2.d.6.b).***

*This test shall be conducted in accordance with the manufacturer's recommendations regarding engine prelube and warmup procedures, and as applicable regarding loading recommendations.

**This band is meant as guidance to avoid routine overloading of the engine. Loads in excess of this band for special testing under direct monitoring of the manufacturer or momentary variations due to changing bus loads shall not invalidate the test.

***If Specification 4.8.1.1.2.d.6.b) is not satisfactorily completed, it is not necessary to repeat the preceding 24-hour test. Instead, the diesel generator may be operated at 5200-5400 kW** for 1 hour or until operating temperature has stabilized.

4.8.1.1.2 (Continued)

b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank obtained in accordance with ASTM-D4176-82, is within the acceptable limits specified in Table 1 of ASTM D975-81 when checked for viscosity, water and sediment.

c. At least once per 184 days the diesel generator shall be started** and accelerated to generator voltage and frequency at 4160 ± 420 volts and 60 ± 1.2 Hz in less than or equal to 10 seconds. The generator voltage and frequency shall be 4160 ± 420 volts and 60 ± 1.2 Hz within 10 seconds after the start signal. The generator shall be manually synchronized to its appropriate emergency bus, loaded to an indicated 5200-5400*** kW in less than or equal to 60 seconds, and operate for at least 60 minutes.

   This test, if it is performed so it coincides with the testing required by Surveillance Requirement 4.8.1.1.2.a.4, may also serve to concurrently meet those requirements as well.

d. At least once per 18 months during shutdown 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 generator capability to reject a single largest load of greater than or equal to ~~839~~ 903 kW (Train B AFW pump) for emergency diesel generator B or ~~696~~ 771 kW for emergency diesel generator A (Train A HPSI pump) while maintaining voltage at 4160 ± 420 volts and frequency at 60 ± 1.2 Hz.

   3. Verifying that the automatic load sequencers are OPERABLE with the interval between each load block within ± 1 second of its design interval.

   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 starts** on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected shutdown loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is

**This test shall be conducted in accordance with the manufacturer's recommendations regarding engine prelube and warmup procedures, and as applicable regarding loading recommendations.

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4.8.1.1.2 (Continued)

loaded with the shutdown loads. After energization of these loads, the steady state voltage and frequency shall be maintained at 4160 ± 420 volts and 60 + 1.2/-0.3 Hz.

5. Verifying that on an ESF actuation test signal (without loss of power) the diesel generator starts* on the auto-start signal and operates on standby for greater than or equal to 5 minutes.

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

   a) Verifying de-energization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel starts* on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected emergency (accident) loads through the load sequencer, and operates for greater than or equal to 5 minutes and maintains the steady-state voltage and frequency at 4160 ± 420 volts and 60 + 1.2/-0.3 Hz.

   c) Verifying that all automatic diesel generator trips, except engine overspeed, generator differential, and low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus, upon a safety injection actuation signal or upon AFAS.

7. Verifying the diesel generator operates* for at least 24 hours. During the first ~~24~~ 22 hours of this test, the diesel generator shall be loaded to an indicated ~~5800-6000~~ 5200-5400 kW** and during the remaining ~~22~~ 2 hours of this test, the diesel generator shall be loaded to an indicated ~~5200-5400~~ 5800-6000 kW**. Within 5 minutes after completing this 24-hour test, perform Surveillance Requirement 4.8.1.1.2.d.6.b).***

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4.8.1.1.2 (Continued)

b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank obtained in accordance with ASTM-D4176-82, is within the acceptable limits specified in Table 1 of ASTM D975-81 when checked for viscosity, water and sediment.

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This test, if it is performed so it coincides with the testing required by Surveillance Requirement 4.8.1.1.2.a.4, may also serve to concurrently meet those requirements as well.

d. At least once per 18 months during shutdown 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 generator capability to reject a single largest load of greater than or equal to 839 903 kW (Train B AFW pump) for emergency diesel generator B or 696 771 kW for emergency diesel generator A (Train A HPSI pump) while maintaining voltage at 4160 ± 420 volts and frequency at 60 ± 1.2 Hz.

3. Verifying that the automatic load sequencers are OPERABLE with the interval between each load block within ± 1 second of its design interval.

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 starts** on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected shutdown loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is

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4.8.1.1.2 (Continued)

loaded with the shutdown loads. After energization of these loads, the steady state voltage and frequency shall be maintained at 4160 ± 420 volts and 60 + 1.2/-0.3 Hz.

5. Verifying that on an ESF actuation test signal (without loss of power) the diesel generator starts* on the auto-start signal and operates on standby for greater than or equal to 5 minutes.

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

   a) Verifying de-energization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel starts* on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected emergency (accident) loads through the load sequencer, and operates for greater than or equal to 5 minutes and maintains the steady-state voltage and frequency at 4160 ± 420 volts and 60 + 1.2/-0.3 Hz.

   c) Verifying that all automatic diesel generator trips, except engine overspeed, generator differential, and low lube oil pressure, are automatically bypassed upon loss of voltage on the emergency bus, upon a safety injection actuation signal or upon AFAS.

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*This test shall be conducted in accordance with the manufacturer's recommendations regarding engine prelube and warmup procedures, and as applicable regarding loading recommendations.

**This band is meant as guidance to avoid routine overloading of the engine. Loads in excess of this band for special testing under direct monitoring of the manufacturer or momentary variations due to changing bus loads shall not invalidate the test.

***If Specification 4.8.1.1.2.d.6.b) is not satisfactorily completed, it is not necessary to repeat the preceding 24-hour test. Instead, the diesel generator may be operated at 5200-5400 kW** for 1 hour or until operating temperature has stabilized.