

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 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 an indicated 6600 to 6821 kW*** and during the remaining 22 hours of this test, the diesel generator shall be loaded to an indicated 6000 to 6201 kW.*** The generator voltage and frequency shall be 4000 ± 320 volts and $60 + 1.2, -3$ Hz within 12 seconds after the start signal; the steady-state generator voltage and frequency shall be maintained within $4000 + 320$ volts and $60 + 1.2$ Hz during this test. ~~Within 5 minutes after completing this 24-hour test, perform Specification 4.8.1.1.2f.6)b)*;~~
- 8) Verifying that the auto-connected loads to each diesel generator do not exceed 6201 kW;
- 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.
- 10) Verifying that with the diesel generator operating in a test mode, connected to its bus, a simulated Safety Injection signal overrides the test mode by: (1) returning the diesel generator to standby operation, and (2) automatically energizing the emergency loads with offsite power;
- 11) Verifying that the fuel transfer pump transfers fuel from each fuel storage tank to the day tank of each diesel via the installed cross-connection lines; ~~and~~
- 12) Verifying that the automatic LOCA and shutdown sequence timer is OPERABLE with the interval between each load block within $\pm 10\%$ of its design interval; ~~and~~

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~~*If Specification 4.8.1.1.2f.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 6201 kW for 1 hour or until operating temperature has stabilized.~~

***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 or momentary variations due to changing bus loads shall not invalidate this test.

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- 13) Verifying the diesel generator's hot restart capability by operating the diesel generator for greater than or equal to 2 hours at an indicated load of 5580 to 6201 kW, shutting down the diesel and restarting it within 5 minutes. On the restart, the diesel generator voltage and frequency shall be 4000 ± 320 volts and 60 ± 1.2 Hz within 12 seconds after the start signal (load test not required after restart).

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SURVEILLANCE REQUIREMENTS (Continued)

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- 8) Verifying that the auto-connected loads to each diesel generator do not exceed 6201 kW;
- 9) Verifying the diesel generator's capability to:
 - a) Synchronize 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.
- 10) Verifying that with the diesel generator operating in a test mode, connected to its bus, a simulated Safety Injection signal overrides the test mode by: (1) returning the diesel generator to standby operation, and (2) automatically energizing the emergency loads with offsite power;
- 11) Verifying that the fuel transfer pump transfers fuel from each fuel storage tank to the day tank of each diesel via the installed cross-connection lines;
- 12) Verifying that the automatic LOCA and shutdown sequence timer is OPERABLE with the interval between each load block within $\pm 10\%$ of its design interval; and
- 13) Verifying the diesel generator's hot restart capability by operating the diesel generator for greater than or equal to 2 hours at an indicated load of 5580 to 6201 kW, shutting down the diesel and restarting it within 5 minutes. On the restart, the diesel generator voltage and frequency shall be 4000 ± 320 volts and 60 ± 1.2 Hz within 12 seconds after the start signal (load test not required after restart).

***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 or momentary variations due to changing bus loads shall not invalidate this test.