

SURVEILLANCE REQUIREMENTS

auto-start signal; the steady-state generator voltage and frequency shall be maintained within these limits during this test;

- 6) Simulating a loss-of-offsite power in conjunction with an ESF Actuation test signal, 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 11.5 seconds, * energizes the auto-connected emergency (accident) loads through the load sequencer 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 \pm 170, -410 volts and 60 \pm 1.2 Hz during this test; and
 - c) Verifying that all automatic diesel generator trips, except engine overspeed, low lube oil pressure, high jacket water temperatures ~~###~~ and generator differential, are automatically bypassed upon loss of voltage on the emergency bus concurrent with a Safety Injection 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 an indicated 7600 to 7700 kW,** and during the remaining 22 hours of this test, the diesel generator shall be loaded to an indicated 6800-7000 kW.** The generator voltage and frequency shall be 4160 \pm 170, - 135 volts and 60 \pm 1.2 Hz within 11.4 seconds after the start signal; the steady-state generator voltage and frequency shall be 4160 \pm 170, -410 volts and 60 \pm 1.2 Hz during this test." ~~within 5 minutes after completing this 24-hour test, perform Specification 4.8.1.1.2h.6)b);~~
- 8) Verifying that the auto-connected loads to each diesel generator do not exceed the continuous rating of 7000 kW;
- 9) Verifying the diesel generator's capability to:

*All engines starts for the purpose of surveillance testing as required by Specification 4.8.1.1.2 may be preceded by an engine prelube period as recommended by the manufacturer to minimize mechanical stress and wear on the diesel engine.

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

#Failure to maintain voltage and frequency requirements due to grid disturbances does not render a 24-hour test as a failure.

~~##If Specification 4.8.1.1.2h.6)b) is not satisfactorily completed, it is not necessary to repeat the preceding 24-hour test. Instead, the diesel generator shall may be operated at the load required by Surveillance Requirement 4.8.1.1.2.a5~~

~~### for 1 hour or until operating temperature has stabilized~~ Surveillance Requirement 4.8.1.1.2h.6)b) shall be started within 5 minutes of stopping the DG upon completion of this prerequisite.
###The high jacket water temperature trip may be bypassed.

Prior to performing Surveillance Requirement 4.8.1.1.2h.6)b)