

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

Insert 10

- 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 $60 \pm 1.2, -3$ 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:

- 7) 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) 8) 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) 9) 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) 10) 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.

Insert 11

*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.

INSERT 10

- 5) Verifying each diesel generator's automatic trips are bypassed upon the simulated SIAS and LOOP combined test ** except:
 - a) High jacket coolant temperature;
 - b) Engine Overspeed;
 - c) Low lube oil pressure;
 - d) High crankcase pressure;
 - e) Start failure relay;
 - f) Generator differential current.
- 6) Verifying full-load carrying capability of the diesel generator ** at a power factor between 0.8 and 0.9 for an interval of not less than 24 hours at 580 to 6201 kW (indicated). The generator voltage and frequency shall be maintained within $4160 \pm 160 - 420$ and 60 ± 1.2 Hz during this test;

INSERT 11

- ** This surveillance shall not be performed in Modes 1 or 2 and credit may be taken for unplanned events that satisfy this requirement.
- *** This surveillance shall not be performed in Modes 1, 2, 3, or 4 and credit may be taken for unplanned events that satisfy this requirement.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 5) Verifying each diesel generator's automatic trips are bypassed upon the simulated SIAS and LOOP combined test** except:
 - a) High jacket coolant temperature;
 - b) Engine Overspeed;
 - c) Low lube oil pressure;
 - d) High crankcase pressure;
 - e) Start failure relay;
 - f) Generator differential current.
- 6) Verifying full-load carrying capability of the diesel generator** at a power factor between 0.8 and 0.9 for an interval of not less than 24 hours at 5580 to 6201 kW (indicated). The generator voltage and frequency shall be maintained within $4160 + 160 - 420$ and 60 ± 1.2 Hz during this test;
- 7) 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.
- 8) 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;
- 9) 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
- 10) 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.

** This surveillance shall not be performed in Modes 1 or 2 and credit may be taken for unplanned events that satisfy this requirement.

*** This surveillance shall not be performed in Modes 1, 2, 3, or 4 and credit may be taken for unplanned events that satisfy this requirement.