

Compliance Challenges re: Emergency Power

Lawful use of emergency power systems – including diesel generators and supporting equipment – requires that the owner maintain them responsibly and test them periodically. National, state, regional, county, and local regulations dictate what an organization like yours needs to do to remain compliant.

While the rules governing your equipment depend upon use and the authorities having jurisdiction (AHJs) in your area, we have summarized key maintenance and safety requirements below for your convenience.

Generators & Emergency Power Systems

SPARK IGNITED GENERATOR POWER LOAD TEST

Spark ignited generator sets must be exercised at monthly with the available EPSS load for 30 minutes or until water temperature and the oil pressure have stabilized (NFPA 110 - 8.4.2.4).

DIESEL GENERATOR POWERED LOAD TEST

Diesel-powered generators will be exercised monthly with the available load and will be exercised annually at not less than 50 percent for 30 minutes and not less than 75 percent for 1 hour, including 15 minutes start up/warm up and 15 minutes shut down/cool down for a total test duration of not less than 2.0 hours (NFPA 110 - 8.4.2.3).

AUTOMATIC TRANSFER SWITCH INSPECTION / TESTING

Transfer switches shall be Operated Monthly (NFPA 110 - 8.4.6.).

Emergency Power Supply System (EPSS)

Level 1 EPSS will be tested at least once within every 36 months. This is typically a 4 hour load test (NFPA 110 - 8.4.9).

Diesel Fuel & Fuel Storage

DIESEL FUEL TESTING

A fuel quality test will be performed at least annually using appropriate ASTM standards (NFPA 110 - 8.3.7).

RUPTURE BASIN TANK TESTING

Annual Leak Detection Verification: Leak detection float sensors are removed and triggered manually to verify both audible and visual alarms (California Fire Code (CFC) 5003.2.9 – 5004.2.2.5).

ABOVE GROUND STORAGE TANK INSPECTIONS

Monthly & Annual inspection of aboveground storage tanks (ASTs). Whether or not a certified inspector is required depends upon the STI-SP001 Table 5.4 Tank Configuration and AST Category (US EPA Spill Prevention Control and Countermeasure Act (SPCC) & STI SP001).

Emergency Power Source Exit Lighting

Exit signs shall be illuminated at all times, they must remain illuminated for 90 minutes after loss of primary power. This should be tested annually. If exit signs have their own power source (i.e., battery pack) and can last 90 minutes, generator power is exempt (California Fire Code (CFC) 1011.5.3).