

Standby Power Solutions, LLC

Explanation of:

Suggested EPSS Scheduled Service Recommendations

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1. Semi-annual professional inspection

(Inspection items do not necessarily include action or repair. Issues need to be noted and serviced or repaired, as necessary. Additional costs may apply)

a. Check and replace, repair, or service as appropriate.

i. Environment

1. Housekeeping (Your staff should keep the area clean and free of debris and storage items as well as rodent and insect infestation. **NFPA 110 disallows clutter**)

ii. Belts

1. Fan and fan drive (lube bearing) **Large engines have a separate fan drive bearing.**

iii. Water pump

1. Check weep hole for moisture. **The weep hole indicates seal failure.**

iv. Coolant Hoses

1. Radiator hoses
2. Heater hoses **The coolant heater and age damages hoses**
 - a. Include bypass lines.

v. Radiator

1. Coolant level and condition **Old coolant loses buffering agents and promotes radiator damage through electrolysis.**
2. Louvers, vents, and screens **Mechanically fail and get clogged resulting in overheating.**
 - a. Cooling air inlet as well as exit
3. Radiator cap **Results in coolant loss.**

4. Recovery bottle and hose vi. Crankcase vent **Clogged vents result in oil loss** vii. Air cleaner

viii. Heaters

1. Coolant **Must keep the engine at its minimum starting temperature.**
2. Oil
3. Space **Minimum 40 degree F required by NFPA 110** ix. Enclosure
 1. Doors, hinges, and latches

x. Exhaust system

1. Rain cap **Can allow water to get into the engine**
2. Flex connector **Can allow exhaust residue to clog the radiator**
3. Thimble **Potential fire hazard**
4. Piping **Can allow exhaust gasses to enter occupied areas**
5. Muffler xi. DC alternator **When the engine is running.**
 1. 28VDC

OR

2. 14VDC
3. Belts/drive xii. Battery charger
 1. Float voltage level
- a. 26-27 VDC

OR Higher or lower voltages damage the batteries and controls b. 13-13.5 VDC

2. Meters
3. Fuses and breakers
4. Power cord and receptacle xiii. Batteries
 1. Age (replace every 30 months) **NFPA 110 recommends 30 months, I recommend 36 months. Batteries always fail with age.**
 2. Cleanliness
 3. Cables
 4. Connections
 5. Tray xiv. Fuel
 1. Check level
 2. Check water separator
 3. Check main diesel tank for water using paste

xv. Governor

1. Linkage
2. Control
3. Speed
4. Stability xvi. Remote annunciator

xvii. AC control 1.

Lamp test

- a. Audible alarm
2. AC and DC meter display
 - a. Selector switch **The selector switch can fail resulting in a complete control failure.**
3. Engine gauges
4. On-Off/Reset-Auto switch
 - a. Separate reset button
 - b. Display and controls **Get familiar with the operating procedures. You should have a copy of the operator's manual on hand. (NFPA 110, 8.2.1) Some models are difficult.**
5. Remote

manual stop station

6. Breakers xviii.

Generator

1. Air flow
2. Breaker
3. Bearing
4. Voltage level and stability xix. Automatic

transfer switch

1. Housekeeping
2. Lights
3. Electrical connections
 - a. Look for discoloration
 - b. Check for overheating
4. Automatic operation **(This should be tested monthly)**
5. Enclosure and latch mechanisms

(The following should all be included in semi-annual pricing)

3. Semi-annual oil change (API CH-4, multigrade or manufacturer's recommendation)
 - a. Oil filters
4. Bi-Annual fuel filter change or 200 hours whichever comes first.
5. Annual cooling system service
6. Bi-annual ignition tune-ups (Spark ignited)
7. Annual automatic transfer switch service
 - a. Contacts
 - b. Limit switches
 - c. Lubricate
 - d. Timer settings

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