

STATEMENT OF WORK (SOW)
for

Emergency Generator Yearly PMs and Loadbank Testing at the Butler VAMC.

1. Background. JCAHO requirements require yearly testing of any emergency generators that do not meet 30% load requirements during monthly checks and the completion of industry standard preventative maintenance.

2. Scope. Task 1- Perform 4.5Hr Loadbank tests on 4 separate Generators (#2 Gen, #7 Gen, #21 Gen, and #30 Gen. Contractor shall provide all parts, equipment, travel time etc., and labor required. 4.5Hr test should be run as follows (25%-1/2 Hr, 50%-1/2 Hr.,75%-1 Hr., and 100%-2.5Hrs.). Standard readings should be every 15 minutes and test results provided. Testing must be completed by Dec. 15, 2016.

Task 2- Bid must also include full preventative maintenance service on 7 separate generators #2, #3, #4, #7, #21, #30 and #99 generators. This service should include a yearly inspection and performance of the following items:

Battery & Battery Charger System

- Check battery charger functions
- Cable connections, termination cleanliness and security
- Check electrolyte level, vent caps of all cells in the starting batteries
- Battery Conductance Test

Fuel System

- Inspect main tank/day tank fuel level
- Inspect day tank controls and pumps. Test operate day tank controls (where available)
- Inspect all fuel hoses, clamps, pipes, components, and fittings
- Inspect governor linkage
- Visually inspect rupture/containment basin
- Water I~ Fuel Test - Sub-base, day tanks
- Optional - fuel sample for laboratory analysis*

Engine Cooling System

- Inspect all hoses and clamps for leaks, coolant level and condition
- Inspect radiator cap and filler neck condition
- Inspect drive belts, observe alignment and deflection
- Observe coolant heater operations
- Utilize DCA test strip to record coolant properties
- Inspect radiator surfaces, shrouds, and barriers for obstruction
- Visually inspect low temperature after cooler coolant
- Optional -coolant sampling'

Engine & Lubrication System

- Inspect lubrication system (visually check oil level)
- Inspect crankcase ventilation system

- Inspect spark ignited ignition system

Intake/Exhaust System

- Inspect air cleaner element and entire intake system
- Inspect exhaust system and rain cap
- Inspect louver operations

Generator Controls & Power Connections

- Visually inspect all engine mounted wiring, senders, and devices
- Visually inspect all control mounted components and wiring
- Lamp test all lights and indicators
- Visually inspect breaker and power connections
- Manually operate generator main breaker(s) open and closed*

Generator Operations

- Start and observe generator and equipment operations
- Verify engine and generator safeties for proper operation
- System test with or without load

Automatic Transfer Switch

(Paralleling Switchgear, Bypass Switchgear, Manual Transfer Switches)

- Visually inspect all power and control wiring
- Visually inspect switch mechanism and enclosure
- Visually inspect controls and time delays settings
- Verify function of exercise clock

FULL SERVICE

(INCLUDES INSPECTION)

Operational & Functional Review of Generator Critical Components

- Inspect engine cooling fan & fan drives for excessive wear or shaft wobble
- Check all pulleys, belt tensioners, slack adjusters & idler pulleys for travel, wear & overall condition
- Inspect/lubricate drive bearings, gear or belt drives, lovejoy and other shaft connecting hardware

Lubrication Oil and Filtration Service

- Change engine lubrication oil
- Change primary lubrication and bypass filters
- Change fuel filters
- Post lube service operation of genset (unloaded) at rated temperature

3. Risk Control – Test and inspection days must be coordinated with the VA COR or Technical POC. Normal business hours are Monday- Friday, 7:00 AM – 3:30PM, excluding Federal Holidays.

4. Place of Performance.

All work will be performed at the VA Butler Healthcare.

5. List of Generators and associated Automatic Transfer Devices

- Cummins Model: 400.0 DFEH-4221173 S/N: D100113079 Size: 400kW ATS Qty: 4 (building #2/generator #2)
- Kohler Model: 100REOZJE S/N: 2832676 Size: 100kW ATS Qty: 3 (building #21/generator 21)
- Cummins Model: 250.0 DQDAA-4280031 S/N: D100113074 Size: 250kW ATS Qty: 3 (building #3/generator #3)
- Cummins Model: 175.0 DSFAC-4239141 S/N: D100117402 Size: 33.5kW ATS Qty: 2 (building #4/generator #4)
- Cummins Model: 175.0 DSGAD-1321728 S/N: B130462361 Size: 175kW ATS Qty: 2 (building #30/generator #30)
- Cummins Model: 350.0 DFEG-10094833 S/N: B120299232 Size: 350kW ATS Qty: 3 (building #7/generator #7)
- Caterpillar Model: LC6 S/N: G6B16057 Size: 500kW ATS Qty: 5 (building #99/generator #99)