



The Critical Power Specialist

Winner of the 2004
BOMA CANADA
Pinnacle Award

The GAL Power Source

-Property Management Edition

Points of Interest

GAL Power Systems offers training sessions for maintenance staff.

Topics include:

- CSA C282-05 Standards
- Engine Controllers
- Generator Set
- Transfer Switches
- Inspections

GAL Ottawa recently performed several fuel tank upgrades in Eastern Ontario for a national radio broadcaster.

In November, GAL performed a complete engine rebuild of a 6076 John Deere and installed an Aggreko Generator for standby power for an Ottawa property management company.

If your company is interested in learning more about the new CSA standards or other services and products GAL provides, we would love the opportunity to inform you over a Lunch and Learn. To book one send a request to:

powersourcepm@galpower.com

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Training your staff to comply with CSA's Code 282

In our last newsletter we briefly discussed the upcoming changes to the Canadian Standards Association (CSA) codes, including that the code states that all maintenance procedures are to follow the latest CSA C282 code. In order to comply with the CSA's Code 282 your generator needs to be inspected, tested and maintained on a weekly and monthly basis. GAL Power Systems can perform these tests for you or provide your maintenance staff with the training required to perform both weekly and monthly tests.

The weekly tests include:

- Confirming engine fluid levels
- Confirming fuel level in the day tank (2 hours minimum), inspect condition of the tanks, and the proper operation of the fuel transfer pump
- Inspecting engine, fuel tanks and cooling systems for evidence of leakage
- Inspecting battery electrolyte level, specific gravity and electrical connections
- Testing lubricant or coolant heaters, inspecting governor linkage and fan belt
- Inspecting control panels for security, test annunciator lamps, inspect control panel settings and test remote annunciation panels
- Correcting all defects found
- Entering all inspections, tests and corrective actions in the system logbook

The Monthly tests include:

- Performing weekly inspections
- Performing a 60 minute building load test at least 30% of the rated load
- Inspecting for proper operation of all auxiliary equipment (i.e. room ventilation)
- Draining exhaust system condensate trap
- Correcting all defects found
- Entering all inspections, tests, corrective actions and instrument readings in the system logbook

The semi-annual, annual and 5 year inspections will need to be completed by a qualified contractor, GAL Power Systems can also assist you with this.

If you have any questions regarding CSA compliant maintenance procedures, please contact your local GAL Service Department or send us an e-mail at: powersourcepm@galpower.com

Keep the Fuel Flowing

Approximately 95% of installed emergency generator sets are equipped with diesel engines. Although the CSA Standard C282-05 does provide a guideline for the minimum amount of fuel stored on site, there are many other factors involved in effective management of on-site diesel storage.

Delivery:

Most fuel supply companies can respond to a supply request within a couple of hours if required. Unfortunately diesel fuel becomes increasingly more important during times of crisis like Ice Storms and Blackouts. In cases such as these, it is not uncommon for deliveries to take 8-24 hours before arriving and sometimes longer. It is a good practice to keep a minimum of 8 hours of fuel on site which will allow enough time for the delivery truck to arrive. In order to estimate the amount of fuel required for 8 hours of operation, you will need to know the total capacity of storage tanks on site and the fuel consumption of your generator set.

Filtration:

In diesel engines, diesel fuel is not only an energy source, it is also used as a lubricant for many components in the fuel injection system. All diesel engines come equipped with fuel filters to ensure that large particulate matter does not enter the engine fuel system; however, most engine fuel filters will not separate water from the fuel. Water is commonly found in fuel tanks that are subject to varying ambient temperatures. In the past, primary fuel filters consisted of a felt cartridge in a housing mounted directly on the outlet of the fuel tank. These elements are quite coarse and do not offer water separation either. Thanks to innovations in fuel filtering technology there are several brands of water separating fuel filter housings that incorporate a filtering medium of 30 microns or as fine as 2 microns and provide a visible means of inspection for water and large particles in the fuel. For large tank installations, there are also fuel polishers that will automatically cycle the fuel through the water separator, filter medium and biocide filter. This type of filtration system is beneficial for long term maintenance of diesel fuel that is expected to be stored for long periods of time. By combining a fuel polisher with a regular chemical treatment stored diesel fuel can be used for many years.

In the following issue, we will review the CSA Standard B139-04, Installation Code for Oil Burning Equipment, which covers the installation requirements of fuel tanks for emergency generators.

If you have any questions please contact your local branch of GAL Power Systems or send us an e-mail at: powersourcepm@galpower.com



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