

## SOP for Emergency Power- Generator Operations Conditions

### **Visual Inspection:**

- Look around the area where the air comes in, and remove any debris.
- Take a look at the generator itself.
- Look for fluid leaks, corrosion, torn gaskets or jackets.
- Look often enough that you will recognize when something looks different.
- Use a bright flashlight like an LED to really see what is going on.

### **Electrical system:**

- Check the batteries — make sure they are fully charged.
- Start the generator to make sure batteries perform under load.
- Clean the battery connections.
- Check specific gravity and electrolyte levels if appropriate.
- Inspect the wiring for loose connections and any cracks in the insulation.

### **Cooling system:**

- Make sure the radiator is clean and air can flow through it unrestricted.
- Check the coolant levels.
- Assure you are using the correct coolant and in the proper concentration.

### **Fuel system:**

- Clean or replace fuel filters per the manufacturer's recommendations.
- Inspect fuel lines for leaks.
- Test fuel periodically to ensure it is usable.
- Use fuel additives as appropriate.
- Do not store diesel fuel in the tank for more than one year.
- Record fuel consumption, and note if there are any changes in how much fuel is being used.

### **Run the generator:**

- On a monthly basis, operate the generator for at least 30 minutes under 30% load.
- Note any unusual noises or vibrations.
- Look for leaks.
- Use an infrared thermometer to record the stack temperature.
- Look for a smoke.
- Check the fuel pressure.
- Start the generator through a transfer switch to ensure the complete emergency power system is functional.
- If you have more than one transfer switch uses a different one to start the generator each month.

Annually, run the generator under 100% load for an hour to ensure that it will function properly when you really need it. Remember, proper maintenance of your generator is critical to keeping your facility operating during an unexpected power loss.