ASPR TRACIE Training and Technical Assistance

Request Receipt Date (by ASPR TRACIE): 29 November 2017
Response Date: 4 January 2018; updated 17 July 2019
Type of TA Request: Standard

Request:

ASPR TRACIE received a request for tools/resources that can calculate generator fuel consumption based on usage levels. It was noted that some healthcare facilities (outside of hospitals) need a tool to help them know how much capacity is left in their generators after varying levels of uses.

Response:

The ASPR TRACIE Team conducted a search of existing calculators or calculation charts that may be useful/helpful. Please note that all of these calculators or charts require the facility to know what the size of the generator and load at which it is operating. ASPR TRACIE does not endorse any particular vendor or commercial third-party listed here.

I. Generator Fuel Calculators

California Hospital Association. (n.d.). Diesel Fuel Template. (Accessed 7/17/2019.)

> This Excel-based calculator was developed for hospitals but may be useful for other facilities. It asks for the following information in order to determine hours of diesel fuel using on-hand inventory, hours at maximum supply, and hours at reorder point: identify the fuel source for the generators and boilers they serve, maximum supply for the tank, fuel reorder (at what tank volume would trigger you to call the fuel vendor for re-supply), current volume (on-hand inventory) at any given point in time, maximum and minimum generator fuel consumption rates, and maximum and minimum boiler consumption rates.

Diesel Service and Supply. (n.d.). Approximate Diesel Fuel Consumption Chart. (Accessed 7/17/2019.)

> This chart provides approximate fuel consumption of diesel generators based on the size of the generator and the load at which the generator is operating.

Diesel Service and Supply. (n.d.). Approximate Natural Gas Fuel Consumption Chart. (Accessed 7/17/2019.)

> This chart provides approximate natural gas fuel consumption of industrial/ commercial generators based on the size of the generator and the load at which the generator is operating.

Global Power Supply. (n.d.). Power Generation Calculators. (Accessed 7/17/2019.)

This page includes three calculators: Calculate Power Required, Convert kKVA to KW to HP, and Calculate Fuel Consumption (based on generator size and load).

U.S. Department of Health and Human Services (HHS) National Disaster Medical System (NDMS). (n.d.). DMAT Cache- Fuel Estimate. (Contact ASPR TRACIE to request this resource.)

This calculator was provided by the HHS NDMS Disaster Medical Assistance Teams (DMAT). It generates diesel fuel requirements for 72 hours based on the type of generator. When the quantity is indicated next to the type of diesel powered equipment noted (pre-populated), it calculates the fuel needed per hour. It then calculates how much fuel is required for 72 hours when the user enters hours per day of usage (can be manually entered).

Preferred Utilities MFG Corporation. (n.d.). Fuel Load Calculator. (Accessed 7/17/2019.)

Calculator inputs include runtime (minimum number of hours generators need to run without a fuel delivery) and KW rating of generators (can enter multiple generators). The outputs include total consumption GPH and available fuel required. A secondary calculator also provides total tank capacity based on ullage, drop tube gap, and generator testing.