

CSIR HELPFUL HINTS

Golf Cart and or Floor Cleaning Equipment Charging Without Exhaust in Existing Buildings

Q: What if there is no mechanical exhaust in the space?

A: Then follow these steps to determine if exhaust system and alarms. Use the Off Gas Form spreadsheet to aid in the evaluation process; it is set up to do the calculations:

- Determine or locate room being used for golf cart and or floor clean equipment and charging.
- Go to the building department archive or use Image Quest to review the floor plans with the dimensions of the room. (Alternative - measure the room.)
- Approximate the percentage of the room, which is open air no storage or equipment.
- Spreadsheet will calculate the volume of the room and the allowable accumulation of hydrogen gas.
- Determine the number of golf cart and/or floor cleaners, spreadsheet will calculate the amount of hydrogen gas produced. (Golf cart is 24 cell 48 volt battery @ 4 hrs = 9.2275 CF and floor equipment is 12 cell 24 volt battery @ 4 hrs = 4.61376 CF)
- Spreadsheet will calculate the percentage of gas of the room and determine if additional ventilation is required.
- In addition, you need to provide information on the airflow in the room.
 - From the mechanical plans, determine the number of supplies and their CFMs, plus other sources.
 - Determine the design air return.
 - The spreadsheet will calculate the time for an air change.
- If no additional ventilation is required, provide signage in the room near the main door stating the maximum number of golf carts and/or floor equipment allowed to be charging in the space.
- If additional ventilation is required, follow the guidelines for the CSIR helpful hint on Golf Cart / Floor Cleaning Equipment Charging.

Comments:

To use this method, the FMC shall complete the Off Gas Form and submit it to the Building Department (Victor Chodora) for review and approval. FMC along with the inspector and Fred Cahill will receive notification of acceptance. If approved the following is required:

- Post copy of the off gas form related to the room used for charging in a plastic sleeve near the main door from the space.
- Provide a sign near the main door with $\frac{3}{4}$ " high letters:
MAXIMUM BATTERY CHARGING
GOLF CARTS (insert Number)
FLOOR CLEANING (insert Number)