

Safe Charging of Electrical Vehicles

Electrical vehicles are becoming more and more common since they provide efficient and environmentally friendly transportation. Electrical carts are an efficient and environmentally form of transportation on our campus. With electric vehicles and carts come the need to recharge them which can pose fire and safety hazards. These vehicles are charged at work, home and public charging stations. Some simple safety steps will help to ensure that the charging of electrical vehicles is done in a safe manner that will help to prevent injuries or fires.

Section 309, Powered Industrial Trucks and Equipment, of the Fire Code establishes safety requirements for the electrical charging of equipment for businesses. These safety guidelines can also help to ensure that charging of personal vehicles is done in a safe manner.

First of all, the charging of electrical vehicles must be done in accordance with the vehicle's manufacturer's recommendations. Deviating from the recommendations of the manufacturer can result in damage to the vehicle, injury or fire. Damaged equipment, electrical wiring or the improper use of battery charging equipment can also greatly increase the risk of fire or electrical shock injury.



The following safety guidelines will help to ensure that the charging is done in a safe manner.

1. Electrical Safety:
 - a. Always make sure that electrical charging equipment is in good work condition before using the equipment.
 - b. Before use, examine electrical cords and extension cords. Do not use any cords that show signs of damage.
 - c. Extension cords used for charging equipment shall be used and stored in a manner that will prevent physical damage to the cord such as damage from the cords being run over by vehicles.
 - d. When using portable battery chargers, keep them clear from combustible materials.
 - e. Use extreme caution when working with electrical equipment in wet conditions.
2. Fire Extinguisher:
 - a. A fire extinguisher with a minimum rating of 4A:20B:C shall be located within 20 feet of battery charging equipment. (SUFMO can help you with installation planning.)
3. Ventilation:
 - a. Battery charging, if done indoors, should only be conducted in well ventilated areas that will prevent a dangerous accumulation of flammable gases (Hydrogen) from the charging process.