

## MANAGEMENT ASSISTANCE FOR OSHA COMPLIANCE IN CHARGING OPERATIONS

A HAWKER materials handling specialist is available to assist new electric truck users in planning a charging location. Below are OSHA regulations pertaining to the design of a battery charging area. It is essential that you familiarize yourself with these regulations.

## OSHA REGULATION 1926.441 - BATTERY ROOMS AND BATTERY CHARGING

- (a) General Requirements
- 1. Batteries of the unsealed type shall be located in enclosures with outside vents or in well ventilated rooms, and shall be arranged so as to prevent the escape of fumes, gases, or electrolyte spray into other areas.
- 2. Ventilation shall be provided to ensure diffusion of the gases from the battery and to prevent the accumulation of an explosive mixture.
- 3. Racks and trays shall be substantial and shall be treated to make them resistant to the electrolyte.
- 4. Floors shall be of acid resistant construction unless protected from acid accumulations.
- 5. Face shields, aprons and rubber gloves shall be provided for workers handling acids or batteries.
- 6. Facilities for quick drenching of the eyes and body shall be provided within 25 feet (7.62m) of the battery handling areas.
- 7. Facilities shall be provided for flushing and neutralizing spilled electrolyte and for fire protection.
- (b) Charging
- 1. Battery charging installations shall be located in areas designed for that purpose.
- 2. Charging apparatus shall be protected from damage by trucks.
- 3. When batteries are being charged, the vent caps shall be kept in place to avoid electrolyte spray. Vent caps shall be maintained in functioning condition.

## OSHA REGULATION 1910.178 SUBPARAGRAPH (G) - CHANGING AND CHARGING STORAGE BATTERIES

- (g) Changing and Charging Storage Batteries
- 1. Battery charging installations shall be located in areas designated for that purpose.
- 2. Facilities shall be provided for flushing and neutralizing spilled electrolyte for fire protection, for protecting charging apparatus from damage by trucks and for adequate ventilation for dispersal of fumes from gassing batteries.
- 3. [Reserved]
- 4. A conveyor, overhead hoist, or equivalent material handling equipment shall be provided for handling batteries.
- 5. Reinstalled batteries shall be properly positioned and secured in the truck.
- 6. A carboy tilter or siphon shall be provided for handling electrolyte.
- 7. When charging batteries, acid shall be poured into water; water shall not be poured into acid.
- 8. Trucks shall be properly positioned and brake applied before attempting to change or charge batteries.
- 9. Care shall be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) shall be open to dissipate heat.
- 10. Smoking shall be prohibited in the charging area.
- 11. Precautions shall be taken to prevent open flames, sparks or electric arcs in battery charging areas.
- 12. Tools and other metallic objects shall be kept away from the top of uncovered batteries.



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