



SAFETY UNLIMITED, INC.

Weekly Safety Meeting

Battery Charging Safety

Batteries are used to power our automobiles, trucks, tractors, and construction or power equipment. There are different types of batteries such as lead-acid batteries, gel cells, and lead-calcium batteries. Most batteries contain sulfuric acid and lead.

Because batteries contain chemicals, chemical reaction by-products, and an electrical current they can pose a hazard to workers if not handled properly. Workers that operate, maintain, and recharge batteries should use caution.

Before working with a battery, you should have training in proper handling procedures.

Consult the vehicle and battery owners' manuals for specific instructions on battery handling and hazard identification.

To avoid splashing acid in your face, wear personal protective equipment (PPE) such as chemical splash goggles and a face shield. Wear acid-resistant equipment such as gauntlet style gloves, an apron, and boots. Do not tuck your pant legs into your boots because spilled acid can form a pool in your boots.

Potential Hazards:

Battery acid: The electrolyte in a battery is corrosive and can burn skin or eyes, eat holes in clothing, or even etch a concrete floor.

Flammable gases: Batteries emit hydrogen gas, which is flammable. It ignites easily and can cause a fire or explosion if allowed to accumulate in a small area.

Electrical shock: Many of us are aware of this danger because we may have seen sparks fly when jumper cables are attached to a car battery.

Weight: Batteries are heavy and require proper material handling equipment to lift them safely.

Follow these safety procedures for charging batteries safely:

- Be sure the proper charger is being used for the particular kind of battery;
- Check that vent caps are in place to prevent overflow and spilling of electrolyte;
- Shut off the charger when connecting or disconnecting the battery;
- Before charging a battery, open the battery compartment and allow it to cool down following manufacturer's recommendations;
- After charging, again allow the battery to cool down—it prolongs battery life; and
- Never overcharge a battery—that's another way to prolong battery life.

Know What to Do in an Emergency:

- Don't forget to use your PPE! Have an emergency kit with corrosion-resistant plastic tools and materials to absorb acid liquids;
- Baking soda is commonly used to neutralize electrolyte spills;
- All workers should know how to operate fire extinguishers properly; and
- For contact with a worker's skin or eyes, rinse immediately for at least 15 minutes, and then seek medical attention.

Remember:

Charging powered industrial equipment batteries can expose you to corrosive battery acid, electrical shock, and explosion hazards from hydrogen gas.

Batteries should only be charged in a designated battery charging area. It's important to make sure these areas are well maintained and properly ventilated, with compatible spill response supplies and appropriate showers and eyewash stations to minimize the chance of injuries.

DON'T BE HASTY WHEN IT COMES TO SAFETY!

Safety Meeting Sign-In Sheet

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| Supervisor: | Subject: |
| Location: | Date: |
| Conducted By: | Trainer Signature: |

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