Battery Handling Safety Stats and Facts

FACTS

1. The acid used as an electrolyte in batteries is very corrosive and can cause injuries if splashed or spilled into workers.
2. Batteries commonly explode when improperly boosted, leading to worker exposure to risk of acid burns and injuries from flying objects.
3. Lead-acid batteries are built with a number of individual cells containing layers of lead plates immersed in sulphuric acid. When the sulphuric acid comes into contact with the lead plate, energy is produced. The battery will have a negative and a positive terminal on the top or side of the battery, and will have vent caps on top. The purpose of the vent caps is to allow for the escape of gases formed when the battery is charging. In addition, the vent caps allow water and acid levels of the battery to be checked during maintenance.
4. Lead-acid batteries can produce explosive mixtures of hydrogen and oxygen gases when they are being charged. If ventilation is poor, the escaping hydrogen creates an explosive atmosphere around the battery. Always keep sparks, flames, burning cigarettes, and other sources of ignition away from the battery recharging area because the gas can be ignited. The result of an explosion could be severe burns and/or fire.

STATS

- Nearly 2,300 people in the U.S. are injured each year while working with or around **lead acid batteries**.
- More than 3,500 people of all ages swallow button batteries every year in the United States. Most pass through the body

and are eliminated, but sometimes they get hung up in the esophagus. An electrical current can form in the body and hydroxide, an alkaline chemical, can cause tissue burns that can be fatal.

- Crown forklifts predict that 10% of **batteries fail** prematurely due to improper charging. If forklift operators know the forklift has a low charge, they may push the truck to make it through its shift without having to recharge or swap trucks. That 10% of premature failing also means 10% of your lift trucks will be creating delay through ineffective batteries.
- OSHA estimates that each year, approximately 85 workers are killed in forklift-related accidents. In addition, 34,900 accidents result in serious injury, with another 61,800 classified as non-serious. One of the hazards workers must contend with when **operating forklifts is the battery**.