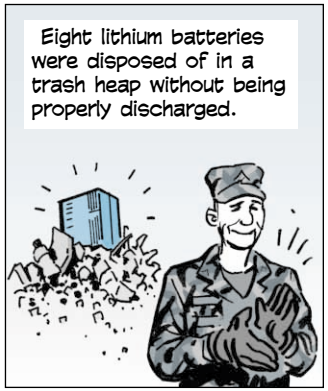
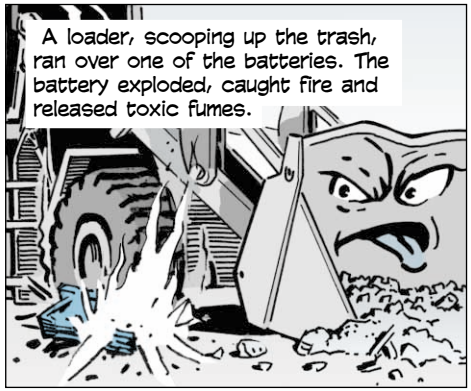
HOW TO HANDLE LITHIUM BATTERIES

Dear MSG Half-Mast,

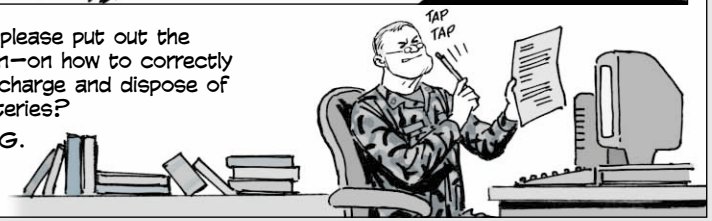
We recently had a lithium battery explode and catch fire. Here's how it happened...





Will you please put out the word—again—on how to correctly handle, discharge and dispose of lithium batteries?

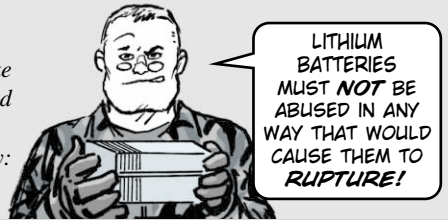
CW3 C.G.



Dear Mr. C.G.,

Lithium-sulfur dioxide batteries like the BA-5590/U contain pressurized poisonous sulfur dioxide gas.

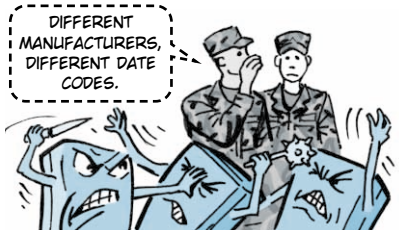
Here's how to handle them properly:



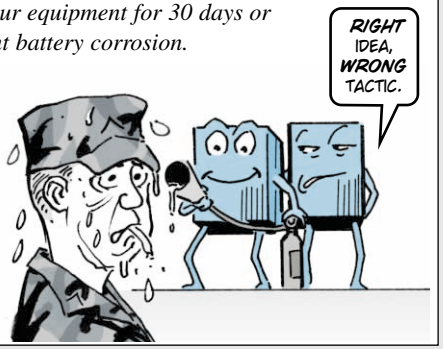
- *Keep batteries in their original packaging until you're ready to use them.*
- *During operation, if the battery compartment is hot to the touch, hisses, makes a burping sound, or if you smell gas, turn off the equipment and let it cool for at least an hour. Keep everyone away from the area.*
- *Never short-circuit, crush, puncture or incinerate batteries.*
- *Never use batteries that are swollen, or that won't fit easily into the battery compartment.*
- *Never use batteries if there is liquid in the plastic storage wrap or if they've bulged or burst.*

- *Never attempt to charge a primary lithium-sulfur dioxide battery.*
- *If you test lithium batteries for capacity, use an approved test set. If you suspect bad batteries, try substituting good ones.*

If there is more than one prime power lithium battery in the equipment, and you find a bad one, replace all of them. Use batteries from the same manufacturer and with the same date code, if possible. Mixing batteries can lead to violent venting.



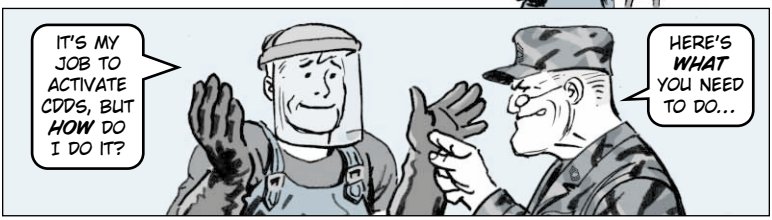
- *When you aren't planning to use your equipment for 30 days or longer, take the batteries out to prevent battery corrosion.*
- *Never use a Halon fire extinguisher on a lithium battery fire. In the event of a lithium fire, evacuate the area immediately and call for the assistance of trained fire fighters.*
- *Never store batteries near heat, flame or other hazardous materials.*
- *Never smoke or use an open flame in a battery storage area.*



PS MORE

- *If the battery has a complete discharge device (CDD), have the person designated to discharge the battery before turn-in or disposal do his stuff.*
- *Have personal protection equipment on hand and use it when handling batteries that are leaking, bulging, swelling or deformed. Never handle hot batteries.*

NSN 4240-00-542-2048 will get you a face shield. Get a full body apron with NSN 8415-00-082-6108.



- *Discharge the batteries in a secure, well-ventilated area away from people and hazardous material.*
- *Set discharging batteries at least 2 inches apart on all sides.*
- *Let the batteries sit a minimum of 5 days for complete discharge.*
- *Remember that discharging batteries may be hot. The heat could even deform the battery case. That's normal. But, if you hear a hissing sound or smell a strong, pungent odor, clear the area immediately until the odor has gone and the hissing has stopped. This is a battery venting and you must dispose of vented batteries as hazardous waste.*

At the end of a normal, complete discharge cycle, the amount of lithium remaining in the battery will be small enough to let you dispose of the battery as non-hazardous waste. Even so, some places still require special procedures. Check with your local environmental office for any federal, state and local requirements on battery disposal.

Here are two pubs you need to handle batteries safely:
SB 11-6, Primary Battery Supply and Management Data;
TB 43-0134, Battery Disposition and Disposal.

Half-Mast