

SWANA

SAFETY FIRST

Lithium-Ion Battery Safety

Fire incidents at waste and recycling facilities continue to rise, largely due to the increased popularity of lithium-ion batteries (LIBs). LIBs are found in everyday items such as phones, smart watches, and hearing aids — which appear more frequently in the municipal waste stream and are often incorrectly placed in recycling bins. When damaged, LIBs can instantly catch fire and explode, injuring workers and destroying equipment and facilities, so follow these safety tips.

Battery Removal

Once identified, inspect and extract batteries from the inbound material stream. Follow these tips to prevent fires:

- Secure the area and idle all rolling stock while removing the battery.
- Inspect the battery for damage. If undamaged:
 - Tape the battery terminals and place it in a dedicated temporary storage container (typically a metal, 5-gallon ash can).
 - Once placed in the can, scoop vermiculite on top of the battery.

Damaged Battery Protocol

Damaged batteries should not be stored with undamaged batteries.

- Batteries that are swelling, smoking, leaking, or overheating should be treated with extreme caution.
- Immediately place them in an absorbent, non-flammable material in a cool, dry place.
 - Store outdoors in a noncombustible structure away from other structures, vehicles, and equipment.
 - Recommended storage materials include sand or vermiculite.



Communicate with your local fire department for additional safety best practices and to ensure the emergency response personnel are familiar with your facilities.



SWANA has a new Lithium-Ion Battery Workgroup focused on best practices for safety procedures, communications, and public policies related to LIBs. [Join today!](#)

Source: Guide for Developing Lithium Battery Management Practices at Materials Recovery Facilities

