

# Battery Recycling and Disposal



## Overview

Batteries may contain hazardous materials such as strong acids, cadmium, chromium, lead, lithium, mercury, and silver. If packaged or disposed of improperly, these materials may present a fire hazard during transportation, pollute the environment, and pose a threat to human health. Waste batteries which contain hazardous materials must be sent to, or collected by, Environmental Health and Safety (EHS). EHS ensures that these batteries are managed in an environmentally sound manner via recycling and ensures compliance with applicable Federal, State, and local regulations. Common examples of batteries and their sources include, but are not limited to:

### BATTERY TYPES

- Alkaline
- Lead-acid and lead-acid gel
- Lithium-ion (Li)
- Nickel-cadmium (Ni-Cd)
- Nickel metal hydride (Ni-MH)
- Mercuric oxide
- Carbon-zinc
- Silver-oxide
- Silver-cadmium

### BATTERY SOURCES

- Laptop computers
- Cellular and cordless phones
- Cameras and camcorders
- Video and audio equipment
- Pagers
- Appliances and power tools
- Flashlights
- Smoke detectors
- Emergency lighting fixtures

## Applicability

This procedure applies to all WCM employees and contractors working on behalf of WCM, which generate waste batteries (Generators). This Update provides guidance on the proper handling, recycling, and/or disposal of waste batteries at WCM.

## Responsibilities

**Environmental Health and Safety (EHS)** ensures that all spent or unwanted batteries generated at WCM are managed in an environmentally sound manner. Furthermore, EHS ensures that this Update is consistent with all applicable Federal, State, and local regulations and provides guidance and training to Generators as needed.

**Generators** ensure that all waste batteries generated at WCM are collected, stored, and otherwise managed for recycling and/or disposal in accordance with this Update.

**Contractors** ensure that any waste batteries found during , or created as a result of , WCM construction or renovation projects are collected, stored, and otherwise managed for recycling and/or disposal in accordance with this update.

## Procedure

### LEAKING BATTERIES

Leaking batteries may require special handling. Contact EHS to report leaking batteries and to obtain guidance on proper disposal.

### INTACT BATTERIES

Alkaline and carbon-zinc batteries (excluding button batteries) may be disposed of with normal refuse or sent to EHS for disposal. Follow the steps below to dispose of intact batteries.

1. **TAPE BATTERY TERMINALS** - Batteries, except for standard Alkaline batteries (e.g. AAA, AA, C, D, 9-Volt), must be placed in separate plastic bags or have their terminals taped with clear, non-conductive tape (e.g. packing or scotch tape). This is required so as to prevent a dangerous evolution of heat, short circuiting, and damage to terminals caused by the contact with



**Weill Cornell  
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**Environmental Health and Safety**

TEL 646-962-7233 WEB [weill.cornell.edu/ehs](http://weill.cornell.edu/ehs) EMAIL [ehs@med.cornell.edu](mailto:ehs@med.cornell.edu)

Weill Cornell Medicine | 402 East 67th Street, Room LA-0020 | New York, NY 10065

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the terminals of another battery in the same container. Improperly packaged batteries have caused a number of truck fires in recent years; the image to the right is an actual example.

2. **STORAGE / PACKAGING** - All types of waste batteries must be placed in a container (plastic bucket, cardboard box, envelope, sealable plastic bag) while being accumulated prior to disposal. The container must be labeled "Waste Batteries."
3. **DISPOSAL** - Use one of the following methods for disposal based on the volume of batteries in question:

**CAMPUS MAIL**

**Small** amounts of waste batteries:  
Place batteries into an Interdepartmental Mail envelope and send to EHS at Box 205

**EHS COLLECTION REQUEST**

**Large** amounts of waste batteries:  
Submit an online Chemical Collection Request in [Salute](#) and EHS will collect the containers directly from your location.



*Truck fire caused by improperly packaged batteries.*

**TIPS FOR REDUCING BATTERY USE**

DO	DO NOT
Use rechargeable batteries whenever possible.	Recharge non-rechargeable batteries.
Let a discharged battery cool to room temperature before recharging to ensure the battery obtains a full charge.	Mix different kinds of batteries, including using rechargeable with non-rechargeable, as this may ruin the equipment, shorten the battery life, or cause an explosion.
Charge new rechargeable batteries 14 – 16 hours before use to obtain maximum capacity.	Leave cellular phones, etc. in chargers when not charging (i.e., don't use the charger as a stand) because it will shorten battery life.
Recharge rechargeable batteries only when they are near to fully discharged.	Recharge fully charged batteries for an "extra boost" as it will significantly shorten the life span.
Store batteries in a cool, dry location out of direct sunlight.	Place batteries or equipment with batteries where they will overheat as it shortens the life of the batteries.
Clean contact surfaces when installing batteries so power isn't wasted.	Mix batteries with other objects (such as keys or change) because it can cause short-circuiting.
Purchase batteries only as you need them as they have limited shelf life.	Mix old batteries with new ones, including rechargeable, as it shortens the life of new batteries.
Remove batteries from unused equipment in storage.	Place batteries in the sun for prolonged periods, as they will potentially overheat and leak.

**References**

- 6 NYCRR Subpart 374-3: Standards for Universal Wastes
- NYS Law ECL 27, Title 21: Mercury-Added Consumer Products Law
- USDOT Pipeline and Hazardous Materials Administration; Battery Safety Compliance Advisory
- [WCM EHS Manual 5.1 – Waste Minimization and Pollution Prevention](#)
- [Salute Safety](#)