

# HOUSEHOLD BATTERIES- A PROPER DISPOSAL

**Q:** Why are household batteries considered **HAZARDOUS**?

**A:** Household batteries have a high potential to be *corrosive*, a characteristic used by the federal government to classify hazardous waste. Also, some of the major components of a battery - cadmium, mercury, zinc and lithium - have the potential to be environmentally harmful and injurious to humans if disposed improperly. Some examples are, (1) lithium batteries are highly reactive with water if their casings are disturbed; and (2) mercury button batteries can be lethal if ingested - a fact that is particularly important in households with children.



**Q:** What is being done with the batteries turned into the Household Hazardous Waste collection?

**A:** The batteries which *can* be recycled using today's available technology are sent to federally licensed battery recyclers. The remaining batteries are carefully packaged, and sent to a federally approved hazardous waste landfill for proper disposal, thereby diverting them from the municipal solid waste stream.

## A NICKEL (Ni) FOR YOUR THOUGHTS?

Developing awareness of household batteries and their current use is essential to understanding the importance of this collection program. The following list provides facts about battery use and its impact on our solid waste stream:

- 2.5 billion dry cell batteries are sold in the US each year
- An estimated 530,000 pounds of batteries require disposal daily
- Americans own over 900 million battery operated devices
- The average household batteries accounted for 89% of the mercury in the municipal solid waste stream
- Alkaline and carbon-zinc batteries are the most common types of batteries consumed, comprising 90-93% of all batteries in the residential waste stream
- In a recent EPA study, nickel-cadmium (Ni-Cd) rechargeable batteries were found to contribute over 50% of the cadmium in the waste stream

### City of Lawrence/Douglas County Household Hazardous Waste Program

**If you are a Douglas County resident call 832-3030 to schedule an appointment to drop off your old, used batteries!**

Free to Douglas County households.

**Ask about our NEW EXPANDED HOURS!**

### Lead Acid Battery Drop-Off Locations (Car Batteries)

**ADVANCE AUTO PARTS**  
2530 S. Iowa - 749-2941  
1501 W. 6th - 841-5559

**LAWRENCE BATTERY COMPANY**  
903 N. 2nd - 842-2922

**LONNIE'S RECYCLING**  
501 Maple - 841-4855

**O'REILLY AUTO PARTS**  
1008 W. 23rd - 842-9800  
906 N. 2nd - 832-0408

**WAL-MART AUTO CENTER**  
3300 Iowa - 832-8655

(SOURCES: Environmental Protection Agency (EPA), Franklin & Associates, Minnesota Pollution Control Agency, Florida Department of Environmental Resources)



**TYPES OF DRY CELL BATTERIES FOUND IN THE  
MUNICIPAL SOLID WASTE STREAM**

<b>Battery types and sizes</b>	<b>Common uses</b>	<b>Weight per cell</b>
<b>Non-Rechargeables</b>		
Metal Alkaline (9 volt, D, C, AA, AAA)	Cassette players, radios	Typical Heavy Mercury: .025% or none
Carbon-zinc* (9 volt, D, C, AA, AAA)	Flashlights, toys, radios	Mercury: .010% or none
Mercuric oxide* (button)	Hearing aids, pacemakers	Mercury: 35-50%
Silver-oxide (button)	Hearing aids, pacemakers	Mercury: 0.4-1.0%
Zinc-air (button)	Hearing aids, pagers, calculators	Mercury: 0.4-1.0%
Lithium (9 volt, C, AA, coin, button)	Cameras, watches, computers	N/A
<b>Rechargeables</b>		
Nickel-cadmium (9volt, 15% C, D, AA, AAA, battery packs)	Portable vacuum, power tools, kitchen appliances	Cadmium: 10-
Small sealed lead-acid (gum packs, pack configurations)	Camcorders, cell phones, computers, portable radios	Lead: 50-75%

\* NOTE: As is required by law, mercury batteries are distinguishable because they have "Hg" stamped on them, and carbon-zinc batteries are labeled as such in order to distinguish them from alkaline.

**DID YOU KNOW...?**

- \* Public perception is shaping the way the battery industry is manufacturing its product: more and more battery manufacturers are working towards offering mercury-free batteries.
- \* The amount of mercury used in alkaline cell batteries was already reduced by 90% between 1982 and 1990.
- \* Research is being performed to develop new non-corrodible, plastic casings which may reduce toxic metal leaching.

Despite these advancements in the battery industry, participation in battery recycling programs is essential to ensure that our community is doing its part to stop these hazardous materials from entering our landfills.

**REDUCE**

- ◆ Try to avoid using batteries. Buy toys and appliances which do not need them.
- ◆ When you must buy batteries, ask for those low in mercury.
- ◆ Avoid buying appliances with non-rechargeable cadmium batteries.

**RECHARGE**

- ◆ Consider buying rechargeable batteries whenever possible.
- ◆ When purchasing appliances containing rechargeable batteries, buy only the ones which offer *removable* rechargeable. Remember that you can't recycle it if you can't get to it.

**RECYCLE**

- ◆ Utilize the City of Lawrence/ Douglas County Household Hazardous Waste Program. Call 832-3030 to schedule a drop-off appointment for your household batteries.
- ◆ If you live outside Douglas County, contact your municipal government for information on their household hazardous waste collection facility.