

OhioEPA

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LAMPS AND BATTERIES: CAN I THROW THEM IN THE TRASH?

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What you'll learn

- ★ What the fuss is
- ★ If you throw it away you must be sure it isn't hazardous waste
- ★ Why to recycle
- ★ Where to recycle
- ★ How to comply with the universal waste rule



What's the big deal about fluorescent lamps and batteries?

- ★ The evils of mercury
- ★ Other goodies in lamps
- ★ A broken lamp means escaped mercury
- ★ Different types of batteries contain different chemicals



What's in those batteries?

- ★ Single use alkaline

- ★ Zinc, Manganese Dioxide and Potassium Hydroxide

- ★ Usually not hazardous, but you still have to evaluate before you throw it in the trash



- ★ Rechargeable

- ★ Nickel Cadmium, Nickel Metal Hydride, Lithium Ion, Lead Acid and Small Sealed Lead

So can I throw them in the trash?

- ★ Mercury, cadmium and lead in lamps and batteries often make them hazardous waste
- ★ You'll have to evaluate them to be sure they aren't hazardous
- ★ You can use reliable data supplied by others or have them tested



Is there an alternative to throwing them in the trash?

- ★ Mercury, glass and metal in lamps can be recovered and recycled
- ★ Metals in hazardous and non-hazardous batteries can be recovered and used in new batteries and making steel



What do I need to do if I recycle?

- ★ Choice of complying with more complicated hazardous waste rules or the simpler universal waste rule
- ★ No hazardous waste regulations to comply with if the waste isn't hazardous



Managing as a Hazardous Waste

What you must do depends on how much you generate:

- ★ **Large Quantity Generator (LQG)** generates more than 1000 kg in one calendar month
- ★ **Small Quantity Generator (SQG)** generates between 100 kg and 1000 kg in one calendar month
- ★ **Conditionally Exempt Small Quantity Generator (CESQG)** generates less than 100 kg in one calendar month

LQGs and SQGs

- ★ Must evaluate all wastes (keep records of evaluation)
- ★ Must count toward monthly hazardous waste total
- ★ Submit notification of hazardous waste activity and get an ID number
- ★ Inspect areas where you store hazardous waste
- ★ Emergency notification requirements



Hazardous Waste Management

- ★ **LQG** 90 day accumulation, **SQG** 180 days
- ★ Both **LQGs** and **SQGs** must:
 - ★ Comply with all applicable hazardous waste management requirements
 - ★ Use manifests
 - ★ Send hazardous waste only to a permitted facility
 - ★ Comply with land disposal restrictions requirements
- ★ **LQGs** must submit annual report



Conditionally Exempt Small Quantity Generators

- ★ Must evaluate all wastes
- ★ Must count them toward generation rate
- ★ Must ensure delivery to a permitted HW facility or a facility that is exempt from permitting by rule



Universal Waste Management System

- ★ Designed to encourage collection and recycling of wastes from wide variety of source including households and small businesses
- ★ Wastes that pose low hazards
- ★ Can be safely managed under less restrictive rules than other hazardous wastes

What is the universal waste rule?

- ★ Streamlined hazardous waste management system
- ★ For widely generated hazardous waste
- ★ Lamps, batteries, pesticides and thermostats can be universal wastes in Ohio

Where can I find the rules?

- ★ Ohio Administrative Code (OAC) chapter 3745-273
- ★ **Small handler** rules are OAC rules 3745-273-10 through 3745-273-20
- ★ **Large handler** rules are OAC rules 3745-273-30 through 3745-273-40
- ★ We've provided a copy of the rules in your package

Universal Waste Requirements

- ★ Do not have to count universal waste toward hazardous waste generator status
- ★ **Small Quantity Handler** of Universal Waste if you accumulate less than 5000 kg of universal waste (collectively) at any time
- ★ **Large Quantity Handler** of Universal Waste if you accumulate 5000 kg or more of universal waste at any time

Small Handlers

- ★ Must send UW to another handler or a destination facility
- ★ Cannot dispose
- ★ Can receive and accumulate UW from other handlers
- ★ Cannot dilute or treat except as specified in rule for each type of UW
- ★ Not required to notify and get an ID number

Small Handler

- ★ Label or mark the UW (or container) to identify type of UW as specified in OAC rule 3745-273-14
- ★ May accumulate up to 1 year
- ★ Manage UW to prevent releases to environment
- ★ Must keep records to demonstrate how long UW has been accumulated
- ★ Inform employees who handle of proper handling and emergency procedures

Small Handler

- ★ Contain releases from UW
- ★ Determine if material from clean up is hazardous waste - if so properly manage it
- ★ If UW is hazardous material under DOT rules, must properly package, label, mark, placard and prepare shipping papers per DOT rules
- ★ Must make sure receiving handler agrees to accept it
- ★ No tracking requirements



Large Handler

Must comply with small handler requirements and;

- ★ Notify and obtain an ID number if no previous notification
- ★ Keep shipping and receipt records for three years
- ★ Ensure that employees are familiar with proper handling and emergency procedures



Where to recycle

- ★ See list in handout
- ★ Lamp distributor may act as a handler
- ★ Environmental Recycling in Bowling Green
USA Lamp in Cincinnati (destination
facilities)
- ★ Rechargeable Battery Recycling
Corporation and Big Green Box
(web links)



Can I crush my lamps?

- ★ You cannot crush your lamps and still comply with the UW handler requirements
- ★ You can crush you lamps if you comply with full HW regulations
 - ★ Hazardous waste accumulation requirements
 - ★ Manifest
 - ★ Send directly to a permitted facility (destination facility)



Can I throw green lamps in the trash?

- ★ Must evaluate
- ★ Must keep evaluation documents
- ★ You can have representative sample of lamps analyzed for TCLP metals or use reliable up-to-date manufacturer's data as all or part of your evaluation



Why recycle green lamps?

- ★ Keeps mercury containing products out of inappropriate waste disposal methods (especially incineration)
- ★ Conserves resources - glass, metals
- ★ Preferred management method in Ohio for mercury-containing lamps
- ★ No need to evaluate them

