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How to Manage Used Fluorescent and High-Intensity-Discharge Lamps as Universal Wastes

This fact sheet is for general information only. It is not intended to replace, interpret or modify the regulations for managing hazardous fluorescent and high-intensity-discharge (HID) lamp wastes in Illinois.

Improper disposal damages the environment

Fluorescent lamps illuminate countless businesses, stores, schools and homes. HID lamps (mercury-vapor, metal-halide and high-pressure sodium) are used for street lights, floodlights and industrial lighting. Unfortunately, most of these lamps have been improperly collected as municipal waste and dumped in ordinary sanitary landfills. When broken, these lamps release mercury and other metals that damage the environment.

In Illinois, the newly amended Universal Waste Rule encourages recycling or proper disposal of waste lamps

Used fluorescent and HID lamps may be classified as hazardous waste due to their mercury content and are thus regulated under the Resource Conservation and Recovery Act (RCRA). These regulations provide for management of hazardous wastes.

The Illinois Pollution Control Board amended the Illinois Universal Waste Rule (on April 2, 1998) to cover mercury-containing lamps. Wastes in this special category of hazardous waste are called "universal" because they are broadly generated. Pesticides, thermostats and batteries also can be classified as universal wastes.

The Illinois Universal Waste Rule encourages hazardous waste lamps to be properly collected, recycled or disposed of.

How can I manage hazardous lamps?

In Illinois, you may follow the Universal Waste Rule described in this fact sheet (and in state regulations known as Title 35, Illinois Administrative Code, Subtitle G, Part 733) — or you may follow RCRA requirements for hazardous-waste handling, storage, treatment and disposal.

How can I be sure my waste lamps are hazardous?

In order to manage these lamps properly, you may:

- accept the lamp maker's written claim the lamps are not hazardous;
- assume they are hazardous;
- have them tested.

How does the Illinois Universal Waste Rule help you?

Managing mercury-containing lamps under the streamlined requirements of the Illinois Universal Waste Rule:

- Eliminates permits for universal waste handlers and transporters;
- Eliminates manifests (except when lamps are transported through or are treated or disposed in states not recognizing waste lamps as universal waste);
- Eliminates their contribution to your total volume of hazardous waste;
- Increases the time you may store waste lamps;
- Reduces recordkeeping, training and emergency preparedness requirements.

What conditions make me a universal waste handler?

If you *generate* universal waste or *receive* it for consolidation, you **are** a universal waste handler. If you *treat, dispose, recycle or transport* such wastes, you are **not** a universal waste handler.

Handlers who transport waste lamps are subject to all regulations affecting transporters. (Transport means moving wastes off-site.)

- How do I tell if I'm a small- or a large-quantity handler?** Accumulating *less than* 11,000 pounds of universal waste at a time makes you a small-quantity handler; *more than* 11,000 pounds makes you a large-quantity handler. (It takes about 17,000 48-inch lamps to equal 11,000 pounds.)
- What obligations apply to handlers and transporters?** Handlers and transporters are prohibited from disposing, treating, recycling or diluting waste lamps. Instead they must:
- Send lamps to a facility that accepts universal-waste lamps for recycling, treatment or disposal; a list of recyclers is available from the Illinois EPA.
 - Minimize breakage and immediately clean up broken or damaged lamps;
 - Prevent release of lamp fragments and residues. (The Illinois EPA recommends storing broken lamps in nonmetallic packaging because mercury tends to accumulate on other metals.)
- How should waste lamps be labeled?** Individual waste lamps or containers must clearly state *one* of the following:
- "Universal Waste Mercury-Containing Lamps"
 - "Waste Mercury-Containing Lamps"
 - "Used Mercury-Containing Lamps"
- How long can handlers accumulate universal wastes?** For up to one year (or longer if they can demonstrate more time is needed to collect quantities necessary for proper recovery, treatment or disposal). Handlers must record on each lamp or lamp container the date lamps became waste.
- How should we train workers who handle waste lamps?** In-house training differs between small- and large-quantity handlers:
- Small-quantity handlers shall **inform** *all employees who handle or manage universal waste* of proper handling and emergency procedures;
 - Large-quantity handlers shall **ensure** *all employees are thoroughly familiar* with these procedures.
- What shipping papers and records are required?** Large-quantity handlers must record each shipment of universal waste in a log, invoice, manifest, bill of lading or other shipping document, and include:
- name and address of receiving facility;
 - quantity and type of each waste;
 - shipping date.
- Records must be kept for at least three years from date of shipment. Small-quantity handlers are not required to keep records.
- Can I crush my lamps?** Universal waste handlers and transporters may crush mercury-containing lamps *only to reduce their volume, and only at the site where waste lamps are generated*, provided:
- Crushing occurs in a closed system designed and operated to prevent mercury emissions from exceeding 0.1 milligrams per cubic meter, measured on a time-weighted average over an eight-hour period, as rated by the crusher's manufacturer;
 - The Illinois EPA is notified of crushing activities quarterly, in a form acceptable to the Agency;
 - Crushing occurs in a well-ventilated and -monitored area, to ensure compliance with applicable OSHA exposure limits;
 - Employees crushing lamps are thoroughly familiar with emergency procedures and proper handling of mercury waste;
 - Crushed lamps are stored in closed, nonleaking containers;
 - Spilled or leaked materials are transferred immediately to closed containers.
- Crushing may pose health and environmental risks if mercury vapors are released. Also, lamp recyclers may prefer whole lamps to crushed ones.**

How long can transporters store universal waste?

Transporters may store universal waste at a universal-waste transfer facility for no more than 10 days without becoming a universal waste handler subject to additional requirements. Transporters may take universal waste to only a universal waste handler, a universal-waste transfer facility or a universal-waste destination facility.

Do handlers and transporters need permits?

Universal waste handlers or transporters need not obtain hazardous waste management permits, but must manage these wastes in compliance with regulations found in Title 35 Illinois Administrative Code, Subtitle G, Part 733.

How should homeowners manage waste lamps?

Mercury-containing lamps discarded by *households* are not subject to hazardous waste rules and can be accepted by municipal-waste landfills; however, the Illinois EPA recommends you take these lamps to household-hazardous-waste collection centers. (Call your county recycling coordinator to find the center nearest you.)

What if I have questions not covered by this fact sheet?

For further information regarding the management of universal wastes and other hazardous wastes in Illinois, please call the Illinois EPA's Bureau of Land Permit Section, at 217-524-3300.

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Illinois
Environmental
Protection Agency

Bureau of Land
Box 19276
Springfield, IL 62794-9276
Permit Section: 217-524-3300

September 1998

Midwestern Fluorescent Lamp Recyclers

For information purposes only; inclusion does not constitute endorsement; omission does not constitute disapproval. Compliance status should be verified with the environmental agency of the state where the facility is located.

Indiana

Heritage Environmental Services
7901 W. Morris St.
Indianapolis, Ind. 46231
317-243-0811

Lighting Resources Inc.
498 Park 800 Drive
Greenwood, Ind. 46142
317-888-3889

Mercury Waste Solutions Inc.
1002 W. Troy Ave.
Indianapolis, Ind. 46225
317-782-3228

Superior Lamp
400 W. Regent
Indianapolis, Ind. 46225
317-781-4400

Iowa

A-Tec Recycling Inc.
Box 7391
Des Moines, Iowa 50309
800-551-4912 or 515-244-7357

Midwest Recycling & Mercury
Recovery Services
860 White St., Box 667
Dubuque, Iowa 52004-0667
319-556-8037

Michigan

Greenlights Lamp Recyclers
50720 Corporate Drive
Shelby Township, Mich. 48315-3105
810-997-0044

Minnesota

Dynex Industry Inc.
4751 Mustard Circle
St. Paul, Minn. 55112
612-784-4040

Mercury Technologies of Minn. Inc.
Pine City Industrial Park, Box 13
Pine City, Minn. 55063
800-864-3821 or 320-629-7888

Mercury Waste Solutions Inc.
2007 W. County Road C-2
Roseville, Minn. 55113-1211
612-628-9370; Fax: 612-628-9371

RECYCLIGHTS Inc.
401 W. 86th St.
Bloomington, Minn. 55420-2707
800-831-2852

RECYCLIGHTS Inc.
2010 E. Hennepin Ave.
Minneapolis, Minn. 55413-2799
800-831-2852 or 612-378-9571

Ohio

RECYCLIGHTS Inc.
4220 Perimeter Drive
Columbus, Ohio 43228
800-831-2852 or 614-276-3000

S. D. Meyers
180 South Ave.
Tallmadge, Ohio 44278
330-630-7000

USA Lights of Ohio
5366 Este Ave.
Cincinnati, Ohio 45232
513-641-4155

Wisconsin

Dynex Environmental Inc.
6801 Industrial Loop
Greendale, Wis. 53129
414-421-4959

Environmental Solutions
Box 791
Wausau, Wis. 54402-0791
800-779-3050

Lamp Recyclers Inc.
712 Packard Drive, Box 10794
Green Bay, Wis. 54307-0794
414-592-1166 or 800-558-1166

Mercury Waste Solutions Inc.
21211 Durand Ave.
Union Grove, Wis. 53182-9711
414-878-2599; Fax: 414-878-2699

Recycle Technologies Inc.
1480 N. Springdale Road
Waukesha, Wis. 53186
800-305-3040

Superior Lamp Recycling Inc.
1275 Mineral Springs Drive
Port Washington, Wis. 53074
800-536-5267 or 800-932-6216

Wisconsin Ballast Inc.
W193S6817 Hillendale Drive
Muskego, Wis. 53150
414-679-2080; Fax: 414-679-4748

US Ballast
Box 1443
Wausau, Wis. 54402
800-715-5267 or 715-845-0188