



GECAP

Georgia Environmental Compliance Assistance Program

<http://www.gecap.org>

Fluorescent Bulbs

GECAP of the Georgia Tech Research Institute is a voluntary, non-regulatory environmental compliance program funded by the Georgia Legislature through the University System of Georgia.

Some fluorescent lamps and High Intensity Discharge (HID) lamps obtain their glow from mercury, which emits an ultraviolet glow. This mercury has the potential to be harmful to humans and to the environment. In response to this danger, standards under the Resource Conservation and Recovery Act (RCRA), which is administered by the U.S. Environmental Protection Agency (EPA), have been changed to classify waste mercury containing lamps as Universal Waste instead of hazardous waste. These standards, which can be found under Standards for Management of Waste Mercury-Containing Lamps ([Georgia Chapter 391-3-11-.18](#)), allow companies the option of shipping any amount of waste mercury-containing lamps as a Universal Waste to a recycling facility without a hazardous waste manifest.

To Whom Do the Universal Waste Regulations Apply?

Facilities that produce or accumulate 220 pounds or more of hazardous waste per month are subject to the Georgia Rules for Hazardous Waste Management. *However, if the only hazardous waste generated is mercury-containing light bulbs, it takes more than 350 4-foot fluorescent bulbs to make 220 pounds.* Facilities that generate less than 220 pounds of hazardous waste per month are exempt as long as they ensure the waste is disposed of in a permitted sanitary landfill. Households are also exempt from this regulation.

What Are the Universal Waste Standards?

If your company follows the recycling standards, your fluorescent lamps must be:

- Recycled (NOT disposed of) at an authorized recycling facility.
- Handled in a manner that prevents them from breaking before they are recycled.
- Placed in a proper container and labeled as "Waste Mercury Containing Lamps" or "Used Mercury Containing Lamps."
- Removed from the location where generated within one year of accumulation start date.
- Shipped in accordance with DOT shipping requirements.

Other regulations include:

- Broken bulbs must be completely cleaned up and all residues must be placed in a proper container.
- Persons handling waste lamps must be trained in how to manage them according to regulations.
- Locations are prohibited from accumulating more than 12,000 waste mercury-containing lamps at any one time, unless they have approved financial assurance mechanisms, approved closure plans, contracts (including pricing) from an approved recycling facility, and insurance.

Remember, if you choose to use the Universal Waste standards, you must follow every requirement.

How Does It Benefit Me to Recycle My Fluorescent Bulbs?

If you recycle your waste fluorescent lamps according to the Universal Waste standards for mercury-containing lamps, you are no longer required to:

- Count the weight of the bulbs toward your status as a hazardous waste generator,
- Conduct expensive waste classification testing,
- Use a hazardous waste manifest, or
- Pay hazardous waste fees on the lamps.

How Should I Store My Fluorescent Bulbs On-site?

Carefully pack the bulbs for transportation and storage. When you remove old bulbs and replace them with new ones, place the used bulbs in the cardboard boxes that contained the replacement bulbs. Properly label the boxes containing waste bulbs. You can use preprinted labels or rubber stamps when you dispose of a large volume of bulbs.

When stacking the boxes of used bulbs, avoid crushing the bottom boxes. If you work with a contractor to maintain your lighting system, you may want to specify a safe storage arrangement in your contract to ensure that your used bulbs are not broken or crushed before being sent to a disposal or recycling facility. Some organizations crush their used lamps before disposal. Be careful with this

option! The crushing equipment must have the approval of state and local authorities and crushing methods must be evaluated carefully. No mercury vapor should be allowed to enter the atmosphere. Under current EPA hazardous waste regulations, it may be considered treatment to crush bulbs before sending them to a hazardous waste landfill and a RCRA treatment permit may be required.

If you still wish to dispose of waste mercury-containing lamps, they must be managed as hazardous waste under the full set of hazardous waste regulations.

For more information, or to order a copy of the Rules for Hazardous Waste Management (Chapter 391-3-11), contact the Generator Compliance Program in the EPD Hazardous Waste Management Branch at 404-657-8831.

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Contact the GECAP program at 404-407-8082 or send an email to Paige Rohrig at paige.rohrig@gtri.gatech.edu.

Updated 7/2008