



# Managing Mercury Lamps for Recycling



## **Why They Must be Managed Differently**

- Fluorescent & HID lamps contain mercury, an element found naturally in the environment, but toxic to animals when concentrated.
- Mercury poisoning can cause damage to the nervous system and the brain.
- In particular, Young children, babies and pregnant women are most susceptible to the effects of mercury. Mercury vapor is invisible and odorless and requires special equipment for detection.

## **Why Use Mercury Containing Lamps**

- Mercury naturally exists in coal and is released into the air when coal is burned to make electricity accounting for about 40% of the mercury emissions in the U.S.
- The use of high efficiency lighting reduces power demand, which helps reduce mercury emissions from power plants.
- Each CFL does contain a very small amount of mercury – usually around 5 milligrams, or about the amount that would cover the tip of a ball-point pen.
- Compact fluorescent lamps (CFL) reduce energy consumption and prevent greenhouse gas emissions.
- According to the U.S. Environmental Protection Agency (EPA), if every American home replaced just one light bulb with an ENERGY STAR qualified CFL, it would save enough energy to light more than three million homes for a year and prevent greenhouse gas emissions equivalent to more than 800,000 cars.
- CFLs use about 75 percent less energy than standard incandescent bulbs and last up to 10 times longer.
- About \$30 is saved in electricity costs over each bulb's lifetime.
- CFLs produce about 75 percent less heat, so they're safer to operate and can cut energy costs associated with facility cooling.

## **The Rule – State Regulations**

62-737, F.A.C. – “Management of Spent Mercury Containing Lamps and Devices Destined for Recycling”

- **Use a registered transporter to ensure lamps are handled properly.** A current list is available at: <http://tlhdwm6/rcra/CHAZreports/mercuryhandlers.asp>
- Applies to all fluorescent, high intensity discharge (HID, e.g. metal halide, mercury vapor and high pressure sodium), and some neon lamps.
- These guidelines should not be considered a replacement for the above rule. More complete information is included in the rule than what is offered here.

## **Storage**

- Talk to your registered transporter. They can often provide storage containers that meet the regulations.
- You can also store spent lamps in the original boxes as long as the boxes can be kept closed and properly labeled.
- All lamps **must** be kept dry and indoors.
- Lamps must **never** be taped together.

- **Never** stack items on top of unprotected lamps or place them in a way that would make them vulnerable to breaking.
- Spent lamps can be stored for up to one year.



**Three examples of IMPROPERLY stored lamps**

### **Labeling Containers**

- Storage containers **must** be properly labelled  
 “Spent Mercury-Containing Lamps for Recycling”  
 “Universal Waste Mercury Lamps”  
 “Waste Mercury Lamps”  
 “Used Mercury Lamps”
- Transporter may have pre-printed labels

### **Lamp Crushing**

- Lamps **must** be stored whole and not intentionally broken unless you use a DRUM TOP CRUSHER (DTC)
- DTCs are good for VOLUME REDUCTION if you are short on storage space but must be maintained and users must be trained



### **Shipping Documents**

- Lamps sent for recycling are considered “Universal Waste” and not subject to the same shipping requirements as hazardous waste.
- You must be able to provide documentation to an inspector or Green Lodging assessor concerning how long spent lamps have been stored and where they went for Recycling.
- All shipping documents **must** be kept for 3 years.



**Two examples of PROPERLY stored lamps**

### **Florida Green Lodging Participants MUST Recycle ALL Mercury Containing Lamps & Devices**

- Consult with your registered transporter about recycling spent lamps.
- A registered transporter should know the regulations – BUT it’s your responsibility.
- They should be able to provide storage containers or information on proper storage containers.
- A registered transporter should be able to help with shipping documents.

- They **must** take the lamps to a permitted recycling facility.
- Facilities **must** be able to provide the Florida *Green Lodging* Program assessor with documentation on how long spent lamps have been stored and where they are being recycled.

***Make sure anyone handling fluorescent lamps has access to proper clean up directions.***

***If a Lamp is Broken!!!***

- ***Ventilate the room***
  - Open a window or slider if possible.
  - Leave the room and restrict access for 15 - 30 minutes.
  - If available, point a floor or pedestal fan at the open window or slider.
  - Using a ceiling fan will **not** be as helpful at moving the air out of the window.
- ***Clean up***
  - Wear disposable gloves
  - Do not use a vacuum or broom to clean up the broken bulb on hard surfaces.
  - Carefully scoop up the fragments and powder with stiff paper or cardboard.
  - Sticky tape (such as duct tape) can be used to pick up small pieces and powder.
  - Wipe the area clean with a damp paper towel or disposable wet wipe.
- ***If a fluorescent bulb breaks on a rug or carpet***
  - Follow the steps above.
  - Remove all materials you can without using a vacuum cleaner.
  - If vacuuming is needed after all visible materials are removed, immediately remove the vacuum bag or empty and wipe out bag-less canister.
- ***Double bag and recycle***
  - Place the broken lamp and cleanup materials in doubled plastic bags and seal the bags.
  - Store the materials for pick up by your transporter.
  - Wash hands.
- ***If Several Lamps are Broken!!!***
  - Mercury contamination of the site and exposure to workers may occur.
  - Stop air handlers for the area to prevent vapors from traveling to other areas.
  - If possible, seal the area and start ventilating to the outdoors.
  - Use the same directions for clean up as above.
  - Emphasis should be placed on wearing protective masks to keep from inhaling the powder and possible glass fragments.
  - Be sure to minimize dust created during clean up.

For additional information, please contact:

**Laurie Tenace, FDEP State Mercury Contact**  
[Laurie.Tenace@dep.state.fl.us](mailto:Laurie.Tenace@dep.state.fl.us)  
**(850) 245-8759**

## **FLORIDA RECYCLING FACILITY AND PRODUCT STEWARDSHIP CONTACTS FOR MERCURY-CONTAINING LAMPS AND DEVICES**

Solely as a service to the public and Florida businesses, the Florida Department of Environmental Protection (DEP) maintains the following list of Florida companies that have been issued facility operating permits under Chapter 62-737, F.A.C., by the DEP, or are manufacturers that have notified the DEP of their product stewardship services. Florida-permitted mercury recovery facilities separate mercury-containing lamps and devices into recyclable components and mercury-containing components that will be processed at a mercury reclamation facility to reclaim the mercury. Florida permitted mercury reclamation facilities reclaim commercial grade mercury from mercury-containing lamp and device components. The information was obtained from the DEP's permitting files or voluntarily supplied by the companies and is not necessarily a complete list of available services. A company's absence from the list does not imply prejudice or impropriety. The DEP does not endorse specific equipment or companies. The DEP, by providing this list, does not imply that the companies are in compliance with applicable laws. Users of this list are responsible for ensuring that products, equipment, or services comply with the requirements of local, state, and federal law. The DEP cautions users to personally evaluate the services and compliance status of any company they use. The list is updated periodically and subject to change without notice. The DEP welcomes information from other companies who wish to have their services or stewardship programs listed:

**\*\* AERC.com, Inc. (MTI)**  
**Theresa Wechsler, Account Representative**  
**Tracy Depaola, Facility Manager**  
**4317-L Fortune Place**  
**West Melbourne, FL 32904**  
**1-800-808-4684**  
**(321) 952-1516**  
**FAX (321) 952-1060**  
**<http://www.aercrecycling.com/>**

**\*\* Veolia ES Technical Solutions, LLC (Onyx)**  
**Jeff Dean, FL Regional Sales**  
**Linda Dunwoody, Operations Manager**  
**4972 Woodville Highway**  
**Tallahassee, FL 32311**  
**(850) 877-8299**  
**toll free (866) 877-8299**  
**FAX (850) 878-3349**  
**<http://www.onyxes.com/>**  
**HID Lamps Only**

**Venture Lighting International, Inc.**  
**Susan Hinte, Product Management**  
**Administrator**  
**32000 Aurora Road**  
**Solon, OH 44139**  
**1-800-200-9716**  
**(440) 836-7538**  
**FAX 1-800-200-9718**  
**<http://www.venturelighting.com/Recycling.html>**

\*\* Florida Permitted Mercury Recovery and Mercury Reclamation Facility Revised April, 2007