



## Used-Oil Management

The Steward Observatory Used Oil Management Plan provides written documentation for used oil records. In addition, the plan details compliance with Environmental Protection Agency (EPA) requirements (found at 40 CFR 279) for used oil generators.

The plan outlines a written description of used oil management procedures, disposal methods, and transportation requirements. Steward Observatory adheres to the following practices:

- Never dump or dispose of used oil in the trash, in sewers, or on the ground
- Make sure collection and storage set-up is leak-proof, spill proof, and tanks have lids or are covered to prevent water from entering
- Use lockable fills to prevent dumping of materials into the tank when it is not supervised
- Maintain collection containers regularly, comply with local fire and safety regulations, and avoid leaks and spills
- Label storage tanks "Used Oil"
- Keep records of used oil sent to recycling
- Never mix used oil with any other material. Keep gasoline, solvents, degreasers, paints, etc, separate to prevent contamination or the mixing of incompatible wastes
- Carefully record the amount of used oil placed into and removed from storage devices
- Construct secondary containment around drums/tanks with a capacity for 100 percent of the contents of the drums stored; the base of the containment area should be sloped so any spilled oil may be recollected and removed
- Equip storage containers with wide-mouth, long-necked funnels to reduce spills during filling
- Equip storage containers with a pressure relief valve to reduce pressure buildup, which could cause leaks
- Keep the area near the storage devices neat and clean
- If there are areas where oil could possibly be spilled, keep a supply of clean up and absorbent materials on hand.



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The used oil management standards define a used oil transporter as any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners/operators of used oil transfer facilities. Steward Observatory complies with all relevant used-oil regulations, including keeping tracking records of where the used oil is collected and where it will be transported to.

Small quantities of used oil such as vacuum pump oil should be disposed of through the U of A Risk Management Services. <http://risk.arizona.edu/environmental>

For more information and the official University of Arizona documentation on this subject, please go to: <http://risk.arizona.edu/environmental>

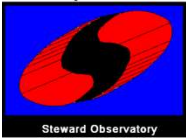
<https://www.epa.gov/hw/managing-used-oil-answers-frequent-questions-businesses>

### **Fluorescent Lamp Disposal**

The Steward Observatory is required to follow the University of Arizona guidelines when disposing of fluorescent & high intensity discharge lamps as they should not be disposed of as regular trash. Most fluorescent lamps contain Mercury which is a highly toxic, heavy metal and HID lamps contain elemental Sodium which is water reactive. For disposal of these lamps, please call the UA Facilities Management Work Desk at 621-3000 to arrange for pick up and disposal. You will be asked to provide the building name, room number, contact person and phone number. Your request will be put on a daily log and you should see a response within 24 – 48 hours.

When storing these lamps while awaiting pick up by Facilities, you should store the lamps in a closed container that has a label identifying the box as universal waste (labels are available from Facilities department) and the label should be marked with the first date a lamp was placed in the storage container. Care should be taken so the lamps will not be crushed. In the event of a broken lamp, call facilities if possible, so they can clean the spill with a mercury vacuum. If it must be cleaned immediately, wear a mask and carefully place debris in a waste bucket and call U of A Risk Management Services for disposal as a hazardous waste.

For more information and the official University of Arizona documentation on this subject, please go to: <http://risk.arizona.edu/environmental>



# FACT SHEET

## What To Do If You Break A Mercury Containing Lamp February 2010

NOTE: This document is not a substitute for the rules. To properly manage mercury-containing waste lamps as universal waste, you must comply with all applicable provisions in the Arizona Universal Waste Rule (A.A.C. R18-8-273) and the Federal Universal Waste Regulation (40 CFR § 273).

### BACKGROUND

Mercury Containing Lamps (lamps) are lighting more homes than ever before, and the Arizona Department of Environmental Quality encourages households to use and recycle them safely. Carefully recycling lamps prevents the release of mercury into the environment and allows for the reuse of glass, metals and other materials that make up a fluorescent light's structure. Lamps contain a very small amount of mercury sealed within a glass housing. They do not pose a health hazard when used and handled properly, however if broken, mercury can escape and pose a hazard to you or the environment. Please consult the following guidelines for cleaning up a broken lamp.

### WHAT IS A MERCURY CONTAINING LAMP?

Bulb or tube portion of an electric lighting device that is designed to produce radiant energy. Includes, but not limited to, fluorescent [tubular and compact fluorescent lamps (CFLs)]; high intensity discharge; neon; mercury vapor; high pressure sodium; and metal halide lamps.

### BEFORE YOU CLEAN UP: AIR OUT THE ROOM

- Restrict pets and people from the area.
- Open a window and leave the room for 15 minutes or more.
- Shut off forced-air heating/air conditioning system.



*Mercury Containing Lamps, including CFLs, use approximately 20%-25% less electricity, which in turn reduces mercury and greenhouse gas emissions from power generating stations.*

### WHAT DO YOU NEED?

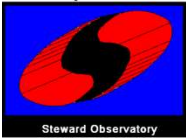
- Disposable gloves
- Stiff piece of paper or cardboard
- Glass jar with lid or sealed plastic bag
- Sticky tape or damp cloth/paper towel

### CLEAN-UP STEPS: HARD SURFACES

1. Wearing gloves, scoop glass fragments and powder into a glass jar or plastic bag.
2. Use sticky tape to pick up any remaining small glass fragments and powder. Wipe the area clean with a damp cloth or paper towels. Place cloth/towels in the glass jar or plastic bag.
3. Do not use a vacuum or broom to clean up the broken bulb on hard surfaces.

### CLEAN-UP STEPS: CARPET AND SOFT SURFACES

1. If vacuuming the carpet is needed, remove the vacuum bag (or empty and wipe the canister), and put the bag and vacuum debris in a sealed plastic bag. Vacuuming increases the chances of mercury droplets being dispersed into the air.
2. If clothing or bedding materials come in direct contact with broken glass or powder, the material should be thrown away. Do not wash.
3. You can, however, wash materials that have been exposed to mercury vapor, such as the clothing you are wearing when cleaning the broken lamp, as long as that clothing has not come into direct contact with the materials from the broken lamp.
4. Wipe off shoes with a damp cloth or paper towels. Place the cloth/towels in a glass jar or plastic bag for disposal.



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#### DISPOSAL OF CLEAN-UP MATERIALS

- Immediately place all clean-up materials outdoors in a trash container or protected area for the next normal trash pickup.
- Wash your hands after disposing of the clean-up materials.

#### FUTURE CLEANING OF CARPETING OR RUG

- The next several times you vacuum, shut off the forced-air heating/air conditioning system and open a window before vacuuming. Leave open for 15 minutes after vacuuming.

#### WHAT NEVER TO DO WITH A MERCURY SPILL

- Never use a broom to clean up mercury. It will break the mercury into smaller droplets and disperse them.
- Never pour mercury down a drain. It may lodge in the plumbing and cause future problems during plumbing repairs. If discharged, it can cause contamination of the septic tank or sewage treatment plant.
- Never wash contaminated clothing in a washing machine. Mercury may contaminate the machine and/or pollute the environment. Clothing that has come into direct contact with mercury should be disposed.
- Never walk around if your shoes might be contaminated with mercury. Contaminated clothing can also spread mercury throughout the environment.

#### MORE INFORMATION

For additional information regarding this subject, please contact ADEQ:

Hazardous Waste Inspections and Compliance Unit  
Waste Programs Division  
1110 W. Washington St.  
Phoenix, AZ 85007

(602) 771-4673 or  
toll free at (800) 234-5677 Ext. 771-4673

Hearing impaired persons call  
ADEQ's TDD line: (602) 771-4829

[www.azdeq.gov/environ/waste/index.html](http://www.azdeq.gov/environ/waste/index.html)

#### WEB SITES THAT MAY PROVIDE ADDITIONAL INFORMATION

- Energy Star Web site on CFLs:  
[www.energystar.gov/cfls](http://www.energystar.gov/cfls)
- EPA's Web sites on Mercury and Mercury Containing Products:  
[www.epa.gov/mercury](http://www.epa.gov/mercury)  
[www.epa.gov/epr/products/mercury.htm](http://www.epa.gov/epr/products/mercury.htm)
- EPA's Broken Lamps Clean-up Procedures:  
[www.epa.gov/mercury/spills/index.htm#fluorescent](http://www.epa.gov/mercury/spills/index.htm#fluorescent)
- Local Recycling Options for Households:  
[www.epa.gov/bulbrecycling](http://www.epa.gov/bulbrecycling)  
[www.earth911.org](http://www.earth911.org)

#### RECYCLING FACILITIES

The following are some options for lamp disposal. Please contact the facility to verify hours of operation. Some organizations may not accept all types of lamps or may charge a small fee. In addition to those listed below, please check with your local Ace Hardware, Home Depot, or Household Hazardous Waste Collection Facility as other possible recycling locations.

IKEA Tempe  
2110 W. IKEA Way  
Tempe, AZ 85284  
(480) 496-5658

Lighting Resources, LLC  
1522 East Victory Street, Suite #4  
Phoenix, AZ 85040  
(602) 276-4278

WM Universal Waste Lamp Tracker, Inc.  
10 South 48th Street, Suite #4  
Phoenix, AZ 85043  
(602) 353-9282

City of Tucson and Pima County  
Main HHW Program – Main Facility  
2440 West Sweetwater Drive  
Tucson, AZ 85705  
(520) 888-6947

Hazardous Products Center (HPC)  
6770 East Landfill Road  
Flagstaff, AZ 86004  
(928) 527-9005