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# ENVIRONMENTAL Fact Sheet

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## **Compact Fluorescent Light Bulbs and Mercury: What Consumers Should Know**



Switching from traditional light bulbs to compact fluorescent lights (CFLs) is an effective and simple change everyone can make right now to reduce energy use and prevent greenhouse gases that contribute to global climate change. Lighting accounts for close to 20 percent of the average home's electric bill. Energy Star qualified CFLs use up to 75 percent less energy than incandescent light bulbs, last up to 10 times longer, cost little up front, and provide a quick return on investment.

If every home in America replaced just one incandescent light bulb with an Energy Star qualified CFL, in one year we would save enough energy to light more than three million homes and prevent greenhouse gas emissions equivalent to those of more than 800,000 cars.



### **Compact Fluorescent Bulbs Contain Mercury**

CFLs contain a very small amount of mercury sealed within the glass tubing – an average of 5 milligrams – about the amount that would cover the tip of a ballpoint pen. By comparison, older thermometers contain about 500 milligrams of mercury. Currently, mercury is an essential component of CFLs and allows the bulb to be an efficient light source. Unfortunately, when released into the environment, mercury can pose a hazard to human health or harm the environment.

No mercury is released when the bulbs are intact or in use, so proper handling and disposal will eliminate any mercury risk from CFLs. Be careful when removing the bulb from its packaging, installing it, or replacing it, as it is made of glass and can break if dropped or roughly handled. Always screw and unscrew the bulb by its base (not the glass), and never forcefully twist the CFL into a light socket. To further reduce risk of contamination from bulb breakage, place a drop cloth beneath the light fixture prior to changing the bulb. Worn out or broken bulbs should be properly recycled or disposed of, using one of the options outlined below.

### **What should you do with a CFL when it burns out?**

Spent CFLs should never be disposed of in regular household trash. As a matter of fact, it is against the law in New Hampshire to dispose of any mercury-containing products in landfills, incinerators, or transfer stations. Energy Star qualified CFLs have a warranty, so if the bulb fails within the warranty period, you may be able to return it to your retailer for replacement. Otherwise, the N.H. Department of Environmental Services recommends that burned out CFLs

be recycled at local recycling facilities or retail stores if at all possible. If recycling is not an option, DES recommends that they be taken to a household hazardous waste collection site. These recommendations apply to recycling/disposal of all fluorescent bulbs, including fluorescent tube lamps and CFLs. To identify your current local recycling and/or household hazardous waste collection options, you should always contact your local municipality.

Town Recycling Centers: As of February 2008, many New Hampshire towns accept fluorescent bulbs, including CFLs, at their recycling/transfer facilities. It is advisable to call your local facility ahead of time to make sure they still accept burned out fluorescent bulbs and/or ask for their current operating hours.

True Value and Ace Hardware Stores: Thanks to voluntary partnerships between DES and True Value and Ace hardware stores, spent fluorescent light bulbs can be recycled for free at many participating New Hampshire stores. Please be advised that stores limit quantities collected to six bulbs per customer and no broken bulbs are accepted. For a list of participating hardware stores, contact DES's Pollution Prevention Program at (800) 273-9469 or [nhppp@des.nh.gov](mailto:nhppp@des.nh.gov).



Local or Regional Household Hazardous Waste Collection Days: Check with your local municipality for scheduled household hazardous waste collection days, or Search "household hazardous waste" on [www.des.nh.gov](http://www.des.nh.gov). For additional information, contact the DES HHW coordinator at (603) 271-2047 or [hww@des.nh.gov](mailto:hww@des.nh.gov).

### **How should I clean up a broken CFL?**

For breakage on a hard surface:

1. Ventilate the room by closing all interior doors and vents, opening windows and any exterior doors in the room and leaving the room (restrict access) for at least 15 minutes.
2. Remove all materials you can and **DO NOT VACUUM**.
  - a. Wear disposable gloves, if available.
  - b. Carefully clean up the glass fragments and residue with a stiff paper or cardboard (such as playing cards or index cards).
  - c. Pick up any remaining small pieces of glass and residue using tweezers and sticky tape, such as masking or duct tape.
  - d. Wipe the area clean with a damp paper towel, cloth or disposable wet wipe.
3. Place all cleanup materials (cardboard, gloves, tape, etc.) in a sturdy glass container with tight fitting metal lid such as a canning jar or peanut butter jar. Store the container outside of the house in an area inaccessible to children until you are able to dispose of it at a household hazardous waste location (Search "household hazardous waste" on [www.des.nh.gov](http://www.des.nh.gov)).
4. Wash your hands.
5. Leave windows in the affected room open as long as practical (weather permitting).

For breakage on carpet:

Complete steps 1 through 5 above then:

6. If rug is removable, take it outside, shake, and air out as long as practical.
7. After the cleanup, the first time you vacuum the area where the CFL was broken, shut the door to the room or close off the area from as much of the rest of the house as possible and ventilate the room when vacuuming. Remove the vacuum bag when done cleaning the area, wipe vacuum with wet wipe and put the bag and/or vacuum debris, including cleaning

materials, into a plastic bag and double bag and store the bag outside the house in an area inaccessible to children as in #3 above.

8. After vacuuming, keep window open, door closed and children/pets out of room for one to two hours.
9. Consider removal of carpeting where the breakage occurred as a precaution if there are infants, small children and/or pregnant women present who will be using the room.

*Do not throw broken CFLs away in household trash!*

### **More about mercury**

Mercury is an element (Hg) found naturally in the environment. Mercury emissions in the air can come from both natural and man-made sources. Coal-fired power plants are the largest man-made source because mercury that naturally exists in coal is released into the air when coal is burned to make electricity. Coal-fired power generation accounts for roughly 40 percent of the mercury emissions in the U.S. The use of CFLs reduces power demand, which helps reduce mercury emissions from power plants.

### **For more information**

DES, EPA and other states are continually reviewing the clean-up and disposal recommendations for CFLs to ensure that the most up-to-date information is available for consumers and businesses. For further information, call DES at (603) 271-2956 or enter the key word “mercury” in the Search function at [www.des.nh.gov](http://www.des.nh.gov).

For information from EPA on mercury and CFLs, visit [www.epa.gov/mercury](http://www.epa.gov/mercury) or [www.energystar.gov/index.cfm?c=cfls.pr\\_cfls](http://www.energystar.gov/index.cfm?c=cfls.pr_cfls).