



# MDEQ FACT SHEET: DISPOSAL OF COMPACT FLUORESCENT LIGHT BULBS (CFLs)



## What should I know about using CFLs?

Compact Fluorescent Light Bulbs (CFLs) are small fluorescent light bulbs that have become a popular consumer option to replace traditional incandescent light bulbs because they utilize less energy and cost less to operate. According to the federal EnergyStar Program, qualified CFLs use up to 75% less energy and last 10 times longer than ordinary incandescent light bulbs. If every household in America replaced just one incandescent bulb with an EnergyStar qualified CFL, the energy saved each year would light more than 3 million homes and prevent the greenhouse gas emissions equivalent of more than 800,000 automobiles.



Although there are a number of environmental benefits for using CFLs, consumers should be aware that all CFLs currently contain small amounts of mercury. Mercury is a naturally occurring element that if breathed or absorbed through the skin in significant quantities can cause neurological health problems. However, the risks to people and pets from breaking a CFL are small. A typical CFL bulb contains 1 to 5 milligrams of mercury. This amount would roughly cover the tip of a ball point pen and is approximately 100 times less mercury than would be found in a traditional mercury thermometer. Although the risks are low, as these bulbs become more popular in households it is important that consumers dispose of these products safely and responsibly in order to limit potential mercury exposure to themselves and to the environment.

## What should I do with a CFL bulb when it burns out?

Although CFLs can last up to 10 times longer than standard incandescent light bulbs, they do eventually burn out. The Environmental Protection Agency (EPA) and the Mississippi Department of Environmental Quality (MDEQ) recommend that spent bulbs be properly recycled whenever possible. Consumers may consider the following options for managing unbroken, spent CFLs:



- **If under warranty, return the bulb to the retailer.** EnergyStar qualified CFLs typically have a warranty and may be returned to the retailer within the warranty period.
- **Recycle the bulb.** A number of U.S. retailers and CFL bulb manufacturers are working with EPA to establish recycling programs. Currently, The Home Depot<sup>®</sup> and Lowe's<sup>®</sup> maintain in-store drop-off programs which accept unbroken CFLs at most U.S. store locations. IKEA<sup>®</sup> also manages a similar nationwide drop-off program. Earth911 ([www.earth911.org](http://www.earth911.org)) and [www.recycleabulb.com](http://www.recycleabulb.com) maintain useful websites for finding area businesses and collection programs that may accept CFLs or other materials for recycling. For a fee, Sylvania<sup>®</sup> ([www.sylvania.com/recycle](http://www.sylvania.com/recycle)) provides mailing kits to consumers and small businesses such that bulbs can be returned through the mail.
- **Manage the bulb with other household hazardous wastes.** Many communities operate household hazardous waste collection programs or events. Generally, CFLs may be taken to fixed collection sites or periodic collection events held in your area. Contact your local government or MDEQ for more information on programs in your area.
- **Dispose in normal residential garbage.** If no options for recycling the bulb are available, residents may dispose of the bulb in residential garbage. CFLs are considered a household waste and are therefore exempt from more restrictive disposal requirements. However, MDEQ does recommend placing bulbs in a rigid container or sealable plastic bag prior to disposal.

## What should I do if I break a CFL bulb?

CFLs do not release mercury while they are intact and in operation; however, if the sealed glass tubing is broken, very small amounts of mercury and mercury vapor may enter the local environment. Unlike breaking a thermometer, you will not typically see shiny beads of silvery liquid. Instead, the mercury will primarily be bound to the white phosphorus coating/powder found on the inside of the glass bulb. Additionally, a small amount of mercury vapor will be released. If a bulb is broken, it is recommended to follow the instructions on the next page to limit exposure and avoid spreading mercury to other areas.

**1. Ventilate the room and restrict access.**

- Have all people and pets leave the room and avoid the breakage area.
- Shut off central heating and cooling units to avoid spreading vapors to other areas.
- Open a window and allow the room to remain empty for at least 15 minutes.
- Floor fans may be used to direct air to the open windows.

**2. Remove and contain all the material you can without using a vacuum cleaner.**

- Wear disposable rubber gloves and carefully pick up glass fragments and place them in a glass or heavy plastic jar with a screw-on lid. If a suitable jar is not available, a heavy duty sealable plastic bag may be used. On hard surfaces, cardboard or stiff paper such as an index card may be helpful to scoop up glass and powder.
- Use sticky tape (such as duct tape or packing tape) to pick up any remaining glass pieces and powder.
- Wipe the area with a damp paper towel or a disposable wet wipe.
- Place all materials including gloves, paper, tape and wipes in the jar or sealable bag. If a sealable bag is used, place the bag in a second sealable bag.
- Once clean-up is completed, thoroughly wash your hands.

**3. What other precautions should I consider?**

- If any clothing, bedding materials, throw rugs or carpet comes into direct contact with broken glass or mercury-containing powder, consider discarding the items or the contaminated area of the carpet. Washing contaminated items could transfer mercury to other washables and potentially contaminate the washing machine. Discarding contaminated materials should help to minimize the spread of any remaining mercury and reduce additional mercury exposure.
- Clothing, bedding, or other materials that did not come into direct contact with the broken glass or powder may be washed and used normally. Shoes that come into direct contact with glass or powder should be thoroughly wiped down with a damp paper towel or wet wipe.
- The spill area may be vacuumed normally after all visible materials have been removed as described in Step 2 above. However, for the next several times you vacuum the area, it is suggested that you shut off central heating or cooling systems and open a window while vacuuming and for at least 15 minutes afterward. Once finished with the initial vacuuming, the vacuum bag should be promptly removed and disposed in a sealed container. If using a canister vacuum, the canister contents should be emptied promptly into a sealable container and the inside of the canister wiped with a damp paper towel or disposable wet wipe.

**4. Disposal of broken bulb and clean-up materials**

- MDEQ recommends disposing of broken bulbs and clean-up materials through appropriate recycling programs when possible. Some local household hazardous waste collection programs may accept these materials. MDEQ suggests contacting the organizers of such programs and collection events prior to transporting the materials. Many retail drop-off recycling programs, such as the one offered by The Home Depot, do not accept broken bulbs or mercury contaminated materials.
- If no options for recycling the materials are available, residents may dispose of the broken bulb components and clean-up materials in residential garbage. These materials are considered a household waste and are therefore exempt from more restrictive disposal requirements.



**What are some additional resources for information?**

The MDEQ [Recycling and Solid Waste Reduction](http://www.deq.state.ms.us) webpage (accessible by searching [www.deq.state.ms.us](http://www.deq.state.ms.us) for recycling) provides quick links to information for local Community Programs and Recycling Directories for various types of material recycling. MDEQ's emergency response website also offers additional information regarding small and large [mercury spills](#).

Earth911 maintains a useful database ([www.earth911.org](http://www.earth911.org) or call at 800-CLEANUP) for locating nearby residential recycling programs for various household hazardous wastes, including CFLs. The federal EnergyStar Program website ([www.energystar.gov/cfls](http://www.energystar.gov/cfls)) offers additional information on the benefits of using CFLs as well as links for frequently asked questions and provides detailed clean-up instructions. Finally, the EPA offers additional information on CFLs and mercury at [www.epa.gov](http://www.epa.gov).