

Picking Up the Pieces

EPA offers new guidelines for cleanup and disposal of compact fluorescent lights

A compact fluorescent light bulb (CFL) can save more than \$40 in electricity costs over its lifetime, lasts up to 10 times longer and uses about 75% less energy than standard incandescent bulbs. They are a great option for efficiency-minded consumers looking to both save money and energy use.

Because CFL bulbs and other fluorescent lighting contains small amounts of mercury sealed within the glass tubing, consumers must take care when disposing of broken or spent bulbs.

A CFL bulb contains much less mercury than a glass thermometer. In fact, at 4 milligrams, it would take more than one hundred CFLs to equal the amount of mercury in just one thermometer! Even so, consumers should still take

precautions if a CFL breaks, since mercury vapors may pose health risks.

According to the U.S. Environmental Protection Agency (EPA), when a fluorescent bulb breaks, some of this mercury is released as mercury vapor. The broken bulb can continue to release mercury vapor until it is cleaned up and removed from a home or office.

Studies on mercury exposure from broken CFLs showed that vapor release peaks within the first five minutes of a bulb breaking.

In December 2010, the EPA updated its guidelines for cleaning up and disposing of broken CFL bulbs:

When the Bulb Breaks

- Have people and pets leave the room and avoid contact with the glass fragments or powder.
- Do not walk around if your shoes might be contaminated with mercury. Contaminated clothing can also spread mercury around.
- Air out the room for five to ten minutes by opening a window or door to the outdoors.
- Turn off the central forced air heating/air-conditioning system.
- Collect materials needed to clean up the broken bulb including stiff paper or cardboard, duct or other sticky tape, damp paper towels or disposable wet wipes (for hard surfaces) and a glass jar with a metal lid such as a canning jar or sealable plastic bag(s).

During Cleanup

- Scoop up glass fragments and any powder using stiff paper or cardboard and place the debris and paper/cardboard in the glass jar. Use a sealable plastic bag if glass jar is not available.
- Use tape to pick up remaining bulb

Prevent Broken Compact Fluorescent Light Bulbs

Fluorescent bulbs are made of glass and can break if dropped or handled roughly. To avoid breaking a bulb, follow these general practices:

- ▶ Always switch off and allow a working CFL bulb to cool before handling.
- ▶ Always handle CFL bulbs carefully to avoid breakage.
- ▶ If possible, screw/unscrew the CFL by holding the plastic or ceramic base, not the glass tubing.
- ▶ Gently screw in the CFL until snug. Do not over-tighten.
- ▶ Never forcefully twist the glass tubing.
- ▶ Avoid using CFLs in lamps that can be easily knocked over, in unprotected light fixtures, or in lamps that are incompatible with the spiral or folded shape of many CFLs.
- ▶ Do not use CFL bulbs in locations where they can easily be broken, such as play spaces.
- ▶ Use CFL bulbs that have a glass or plastic cover over the spiral or folded glass tube, if available. These types of bulbs look more like incandescent bulbs and may be more durable if dropped.
- ▶ Consider using a drop cloth, plastic sheet or beach towel when changing a fluorescent light bulb in case a breakage should occur. The cloth will help prevent mercury contamination of nearby surfaces and can be bundled with the bulb debris for disposal.

Source: U.S. Environmental Protection Agency

fragments and powder. Place the used tape in the glass jar or plastic bag.

- Wipe the area clean with damp paper towels or disposable wet wipes. Place the towels in the glass jar or plastic bag.

- Do not use a broom to clean up CFL bulb fragments or powder. It will break the mercury into smaller droplets and spread them.

- Vacuuming hard surfaces or carpets during cleanup is not recommended. Consider vacuuming only if broken glass remains after all other cleanup steps have been taken.

- When vacuuming, keep a window or door to the outdoors open and vacuum the area using the hose without an attachment.

- Remove the vacuum bag (or empty and wipe the canister) and seal it and any materials used to clean the vacuum in a plastic bag.



After Cleanup

- Immediately after cleanup, place all CFL bulb debris and cleanup materials, including vacuum cleaner bags, outdoors in a protected area until materials can be disposed of properly.

- Do not leave any glass fragments or cleanup materials indoors.

- Wash hands with soap and water after disposing of the jars or plastic bags.

- If mercury has been spilled directly on clothing, do not wash it in the washing machine because mercury may contaminate the machine and/or pollute sewage. Instead, discard the clothing.

Ongoing Care of Carpets and Rugs

- Continue to air out the room where the bulb was broken and leave the heating and air conditioning system off for several hours if possible.

- During the next several times the carpet or rug is vacuumed, turn off the heating/air conditioning system, close the

doors to other rooms and open a window or door to the outside before vacuuming. Change the vacuum bag after each use in this area.

- Continue to keep the heating and air conditioning system off and the window or door to the outside open for several hours.

More guidelines can be found on the EPA web site at www.epa.gov/cflcleanup.

These cleanup tips also apply to other mercury-containing bulbs, including linear, U-tube and circline fluorescent tubes, bug zappers and black lights.

Recycling CFLs

As with other hazardous household items such as paints, cleaners, and pesticides, compact fluorescent light bulbs should be disposed of according to state requirements.

Beginning in 2011, any light bulb that contains mercury will be required to have a label notifying the consumer on both the packaging and

the bulb.

NWCPUD encourages consumers to recycle their spent CFLs to protect human health and avoid unsafe mercury releases to the environment.

Communities in the utility's service area and some local retailers currently offer regular CFL collection events and opportunities.

Wasco, Sherman and Hood River residents may recycle CFL and other fluorescent bulbs at the Tri-County Household Hazardous Waste events on the third Saturday of each month from 9 a.m. to 2 p.m. at The Dalles Disposal, 1317 West 1st St.

For a list of additional items that can be recycled at these events, go to www.tricountyrecycle.com.

Home Depot, at 3600 West 6th St. in The Dalles, accepts only unbroken CFLs for recycling. The store does not accept other fluorescent bulbs or tubes. ■

NORTHERN WASCO COUNTY PUD

COMMUNITY CALENDAR

May 7

Wasco County Pioneers Reunion.

Share your interest in local history and view thousands of photos and other items from the history of Wasco County. Meeting and lunch, 10 a.m. at Calvary Baptist Church, 3350 Columbia View Drive, The Dalles.

For details call Annadale at 541-296-6335.

May 7

School District 21 Oldies and Goodies Auction.

Northern Wasco School District #21 Education Foundation fundraiser benefits the creation and sustainment of an agriculturally-focused science course at The Dalles Wahtonka High School. Auction items include collectibles, unusual objects and heirlooms. Doors open at 8:30 a.m., auction begins at 10 a.m., at the Wahtonka campus, 3601 W. 10th St.

For information about the event contact Brian Goodwin at 541-288-6861.

May 14-15

Gorge Open Studios

Ceramic and fiber artists, painters, sculptors, jewelers, digital artists, photographers and furniture makers show their work in their homes and studios. Tour guides (\$15) are available at Waucoma Books and Columbia Center for the Arts in Hood River, The Dalles Art Center and Klindt's Booksellers in The Dalles and Ten Speed Coffee in Mosier.

For information, go to www.gorgeartists.org.

May 24

Northern Wasco County PUD Board Meeting.

6 p.m., 2345 River Rd., The Dalles.