



# Using and managing fluorescent lights in the home

## Contents

Why use fluorescent lights?..... 1

Used fluorescent and HID lights must be recycled..... 1

Mercury and the environment ..... 2

How to recycle used fluorescent and HID lights ..... 2

What to do if you break a fluorescent or HID light ..... 2

**U**sing fluorescent lights makes good sense because doing so saves money on electric bills and protects the environment.

## Why use fluorescent lights?

**You save money.** Fluorescent lights use only one-fourth as much energy per unit of light produced as incandescent lights. They also last up to 10 times longer. So, while fluorescent lights may be more expensive to buy, the purchase price is only a small part of the cost of the light.

Fluorescent lights will save you money because your energy bill will be lower than if you use incandescent lights. For example, replacing a 100-watt incandescent bulb with a compact fluorescent light (CFL) of equivalent light output can save you as much as \$50 over the lifetime of the CFL and cut home cooling energy costs because

fluorescents give off much less heat than incandescents.

Less mercury is released into the environment. In Minnesota, 69 percent of our electricity is generated by coal-burning power plants. Coal contains trace amounts of mercury, and when it is burned to produce power, mercury is released into the atmosphere. About half of the mercury that is emitted into the atmosphere in Minnesota is from coal-burning power plants. So, the less electricity we use, the less mercury is released to the atmosphere.

**Other harmful emissions are reduced also.** Because fluorescent and HID lights use much less electricity than incandescent lights, their use reduces emissions of chemicals that cause acid rain and carbon dioxide, a “greenhouse” gas that contributes to global warming.

## Used fluorescent and HID lights must be recycled

Minnesota law says that fluorescent and high-intensity discharge (HID) lights from households may not be placed in the trash, but must be treated as household hazardous waste because they contain mercury. This applies to fluorescent lights of all shapes and sizes, including compact fluorescent lights (CFLs), mercury vapor lights, high-pressure sodium lights; and metal halide lights.

Mercury makes fluorescent lights work and cannot be eliminated completely from them. And even though CFLs contain less mercury (5 mg. or less), they — like all other fluorescent lights — must be recycled to keep the mercury out of the environment. The mercury, glass and metal from recycled fluorescent lights can then be reused in other products.

For more information on household hazardous wastes and collection programs, call the MPCA’s Household Hazardous Waste program at (651) 296-6300 or toll-free at (800) 657-3864 or consult the household hazardous waste page at [www.pca.state.mn.us/waste/hhw/index.html](http://www.pca.state.mn.us/waste/hhw/index.html).

Fluorescent lights come in many shapes and sizes. These lights may not be thrown in the trash. They, like HID lights, must be recycled as household hazardous waste.

**Fewer power plants are needed.** Less energy demand means electric utilities need less new generating capacity. Utilities can avoid building new plants, which results in more savings for their customers and less future pollution of the environment.

### Mercury and the environment

Although mercury is a heavy metal, it evaporates readily and is carried long distances in the atmosphere before it falls with rain and snow onto Minnesota's land and water. Some of the mercury that falls on Minnesota builds up in fish tissue and increases in concentration as it is transferred along the food chain.



Mercury that has accumulated in fish can affect the health and development of wildlife and people who eat the fish. In humans, mercury affects the central nervous system. The Minnesota Department of Health has issued fish consumption guidelines to help people keep their exposure to mercury at a safe level (see [www.health.state.mn.us/divs/eh/fish/index.html](http://www.health.state.mn.us/divs/eh/fish/index.html)).

### What to do if you break a fluorescent or HID light

Should you break a fluorescent or HID light in your home or business, restrict access to the room while ventilating it to the outside air. Open a window to disperse any mercury vapor, and vacate the room for at least 15 minutes.

If the light was broken on a carpeted or upholstered surface, call the Minnesota Duty Officer at (800) 422-0798, who will put you in touch with someone who can advise you on the cleanup.

But if the light was broken on a hard surface, follow these steps:

- Wearing disposable rubber or plastic gloves, if available, carefully scoop up the glass shards with stiff paper or cardboard. Do not use your hands; the shards are sharp and the powder contains a minute amount of mercury.
- Wipe the area with a damp paper towel or a disposable wet wipe to pick up any very small glass shards and the powder. Do not use a vacuum until you have cleaned up all the visible powder and shards.
- Place all the glass shards, the powder, and the materials you used in the cleanup (gloves, paper, and towel or wet wipe) in a plastic bag that can be sealed. Seal the bag then place it inside another plastic bag and close its seal. Keep this in a protected outdoor storage location until you can take it to your local household hazardous waste facility.
- Now you can vacuum. When you are done vacuuming, put the vacuum bag or the contents of the canister in a double-sealed plastic bag. Place this bag in the trash outdoors or in another protected location outside the home until normal disposal.

### Managing and recycling fluorescent and HID lights

Do not break or crush fluorescent or HID lights because mercury will be released.

Store smaller lamps, such as CFLs, in heavy-duty plastic bags that can be sealed.

Contact your county's household hazardous waste facility for information about recycling used fluorescent and HID lights. To find the location of the household hazardous waste facility, go to [www.pca.state.mn.us/waste/hhw/index.html](http://www.pca.state.mn.us/waste/hhw/index.html) or call the MPCA at (651) 296-6399 (in the Twin Cities metro area) or (800) 657-3864 (from outside the metro area). Some hardware stores accept used fluorescent lights from homeowners. For a list of these, go to [www.earth911.org](http://www.earth911.org).