

College of Saint Benedict and Saint John's University,
Universal waste program.

Fluorescent Light Bulbs: Use them, Recycle them.



Using energy-efficient fluorescent light bulbs makes good sense—we save money on electric bills *and* help protect the environment. But because they contain mercury, fluorescent bulbs of all shapes and sizes (compact fluorescents, fluorescent tubes, and high-intensity discharge bulbs used in our building must be recycled to avoid polluting the environment and posing a health threat. **Never throw these bulbs in the trash—it's illegal to do so.**



How do we recycle our on-campus fluorescent bulbs?

To begin with, we have a list of mercury containing bulbs, identifying shapes, sizes and where they are used on both campuses.

We have designated areas in most of our buildings, for collecting fluorescent light bulbs for recycling. These collection sites are accessible to only select custodial or preventative maintenance personnel who are responsible for changing bulbs.

We place recycling containers (barrels) supplied by a vendor or the empty original packaging for the bulbs, in each of these sites, for collecting used (waste) bulbs.



We transfer containers filled with used bulbs from the collection sites to a central accumulation area on each campus.

We call upon a pre-determined recycling vendor to pick up the used bulbs from the central accumulation area, when a sufficient quantity has accumulated. Pick up from each campus averages 2-3 times a year.

Please NOTE: This procedure is for on campus generated waste bulbs. For your home recycling needs, check with your county household hazardous waste program or your local retailer/hardware store, to find out whether they accept fluorescent bulbs]

Fluorescent light bulbs use only one-fourth as much energy as equivalent incandescent bulbs. And they last up to 10 times longer.

Replacing a 100-watt incandescent bulb with an equivalent compact fluorescent bulb can save as much as \$50 over the life of the bulb.

Fluorescent bulbs use less energy, reducing emissions at power plants that burn fossil fuels, resulting in a net reduction in mercury pollution.

Replacing a 150-watt bulb with a 28-watt compact fluorescent bulb results in 1,020 pounds less carbon dioxide released from power plants over the lifetime of the fluorescent bulb.

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 and less future pollution of our environment.

For more on campus recycling information: Contact: Jeff Curtis or Sharon Braegelmann at CSB and Carol Hlebain or Gary Jorgensen at SJU.

Contact Environmental Health & Safety office, if your department generates routine mercury containing used bulb that needs to be streamed into this collection procedure.

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Health and Safety

One may wonder that Fluorescent bulbs have mercury, a hazardous material in them—so why use them?

Actually, Fluorescent light bulbs are safe to use—no mercury is released when the bulbs are in use. Simply be careful when removing or replacing a fluorescent bulb. Also be very careful when handling, transporting and storing fluorescent bulbs to avoid breakage and exposure to mercury. There may be additional procedural information at department level, for those who handle fluorescent bulbs routinely at work. Following is general information on what to do if a fluorescent bulb breaks:

Because of the mercury in fluorescent light bulbs which often is under pressure, breaking a fluorescent bulb is *not* like breaking a regular light bulb. If a fluorescent bulb breaks, about 20 percent of the mercury in the bulb will vaporize immediately. It is necessary to keep people out of the room. Open the windows and exterior doors to vent the mercury vapor to the outside and leave the room for about 15-20 minutes before starting clean up. After the room has been ventilated, follow these steps to clean up a broken fluorescent light bulb.

- Wearing disposable rubber gloves, carefully scoop up the glass shards and any powder with one or two pieces of stiff paper or cardboard. Do not use hands directly for scooping; the shards are sharp and the powder contains a very small amount of mercury. Do not use broom for sweeping.
- If a fluorescent light bulb breaks on a carpeted surface, use a sticky tape, such as duct tape, for picking up shards and powder. A significant amount of release (Multiple bulbs breaking) may require cutting the carpet.
- Wipe the area with a damp paper towel or a disposable wet wipe to pick up any very small glass shards and the powder residue. Do not use a vacuum until all visible powder and shards have been cleaned up.
- Place all glass shards, powder and other materials used in the cleanup (gloves, paper, towel, wet wipe and tape) in a plastic bag that can be sealed. Place this sealed bag inside another bag or a bucket with a lid. Mark the bucket with the words "Hazardous waste - Broken lamp". Keep it in the nearest controlled collection site and move it to the central accumulation area at the earliest opportunity.
- Wash your hands.
- Now you can vacuum. Check for department designated vacuum cleaner. Ventilate the room while and after you vacuum. When you are done, put the vacuum bag or the contents of the canister in a double-sealed plastic bag. Place this bag directly in the trash outdoors, for normal trash disposal.



If more than three fluorescent tubes are broken simultaneously or if you are unsure what to do with a release, contact Environmental Health & Safety (EH&S) office at CSB 363-5277 or SJU 363-3267. Contact Security or Life Safety in after hour cases. Depending on the severity, the release may be reportable to the Minnesota Pollution Control Agency. Such assessment and reporting will be done by the EH&S office.