

## *Focus Sheet / Mercury-Containing Lamps*

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### Recycling used Mercury-Containing Lamps Responding to Broken Mercury-Containing Lamps

**Recycling used Lamps:** Fluorescent lamps (tubes and compacts) contain low pressure mercury-vapor gas. The lamps are recyclable unless the lamp is broken. For more information on how to recycle whole or unbroken fluorescent and other mercury-containing lamps, see [UW Recycling](#). If you are doing a capital project, see the [Fluorescent Lamps Recycling web page](#).



The following lamps or bulbs also contain mercury and are also recycled unless broken:

- Fluorescent lamps/bulbs:
  - Linear, U-tube and circline fluorescent tubes
  - Bug zappers
  - Tanning bulbs
  - Black lights
  - Germicidal bulbs
  - High output bulbs, and
  - Cold-cathode fluorescent bulbs
- High intensity discharge bulbs:
  - Metal halide
  - Ceramic metal halide
  - High pressure sodium, and mercury vapor



**Responding to Broken Lamps:** Broken fluorescent lamps and other broken mercury-containing lamps/bulbs must be cleaned up and disposed as a hazardous waste, so please be careful when handling and storing them. Even though the amount of mercury in these lamps/bulbs is much less than that in a typical laboratory thermometer, studies have shown that elevated mercury vapor levels may occur when a lamp or bulb is broken in a small or moderate size room with poor ventilation.

### Cleaning up Broken Mercury-Containing Lamps

Follow the instructions below to clean up a broken mercury-containing lamp. This guidance is suitable for building maintenance staff members as well as those who work in laboratories. Personnel doing cleanup of broken lamps need to wear gloves, eye protection and shoe covers to protect the skin and eyes and minimize contamination on shoes.

Contact EH&S at 206.543.0467 (M-F/8-5) for advice if more than one lamp has broken, if you have questions about these cleanup instructions, or you wish to hire an outside contractor to do the cleanup.

Regardless of the amount and location of a broken mercury-containing lamp, never do the following:

- **Never** walk around in an area that is contaminated with mercury. Mercury is easily spread and the spill area may not be easily identified. Contaminated clothing can also spread mercury to other locations.
- **Never** use an ordinary vacuum cleaner to clean up mercury. The vacuum will put mercury vapor into the air and increase exposure. The vacuum cleaner will be contaminated and will have to be disposed of as hazardous waste.
- **Never** use a broom to clean up mercury. It will break the mercury into smaller droplets and spread them over the spill area.
- **Never** pour mercury down a drain.
- **Never** wash mercury-contaminated items in a washing machine. Mercury may contaminate the machine and/or pollute the water system.

### Initial Steps

1. Evacuate people from the area, and avoid walking through the breakage area.
2. Open windows or doors to ventilate the area. Wait at least 15 minutes before beginning the cleanup.
3. Collect materials you will need to clean up the broken lamp:
  - Nitrile gloves
  - Eye protection
  - Shoe covers
  - Stiff paper or cardboard
  - Sticky tape (e.g., duct tape)
  - Damp paper towels or disposable wet wipes (for hard surfaces)
  - Sealable plastic bags for waste

### Cleanup Steps for Smooth Surfaces

1. Put on gloves, eye protection and shoe covers.
2. **DO NOT VACUUM** with an ordinary vacuum cleaner.
3. Carefully scoop up glass fragments and powder using stiff paper or cardboard and place debris and paper/cardboard in a sealable plastic waste bag. Be thorough in collecting broken glass and visible powder. Do not sweep dust.
4. Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder. Place the used tape in the waste bag.
5. Wipe the area clean with damp paper towels or disposable wet wipes. Place the towels in the waste bag.
6. Remove shoe covers and gloves and place into waste bag.
7. Seal the bag and place it into a second plastic bag. Seal the outer bag as well.
8. Wash your hands and face with soap and water after sealing waste bags containing lamp debris and cleanup materials. Label the bag with a UW hazardous waste label. Identify the waste as “hazardous waste - broken fluorescent lamp (or mercury-containing lamp, if applicable).”
9. If shoes, clothing or other articles were contaminated, call EH&S at 206.543.0467 for advice.
10. Complete either an [Online Chemical Waste Collection Request](#) or a [Chemical Collection Request Form \(PDF\)](#). Email the form to [chmwaste@uw.edu](mailto:chmwaste@uw.edu).
11. Contact EH&S at 206.543.7388 (M-F/8-5) to conduct mercury vapor monitoring to ensure that there is no further contamination.
12. Any spill incident requires the involved person or supervisor to complete and submit the [Online Accident Reporting System \(OARS\)](#) form to EH&S within 24 hours (8 hours if serious injury or hospitalization).

## Difficult to manage broken lamps

Type of Breakage	Initial Steps
<ul style="list-style-type: none"> <li>• Break on Porous Surfaces<sup>1</sup></li> <li>• Many broken lamps</li> </ul>	<ol style="list-style-type: none"> <li>1. Keep everyone away from the room to prevent the spread of contamination. Mark or tape off the breakage area to prevent others from walking through or touching the area. Close any doors to isolate the room as long as you can do so without walking through the spill. Post sign(s) to not enter the area. Notify supervisor and others that use the area.</li> <li>2. Before exiting the room, look for mercury on clothing and the bottom of shoes. Remove all contaminated shoes and clothing and double-bag it. EH&amp;S will monitor clothing and shoes for contamination after the cleanup is complete.</li> <li>3. If you or anyone has come in contact with mercury or suspect that you have been contaminated, shower or at least wash thoroughly before changing into fresh clothes.</li> </ol>

<sup>1</sup>Porous surfaces include carpeting, fabrics, unfinished wood, unsealed concrete, or similar surfaces. Mercury cannot be completely removed from carpeting. The contaminated carpeting must be carefully removed and disposed of as hazardous waste.

<b>Next Steps: Contact EH&amp;S</b>
<ol style="list-style-type: none"> <li>1. On UW Seattle campus, call EH&amp;S at 206.543.0467 (M-F/8-5) or off hours, call UWPD at 911 from a campus phone. At medical centers and other locations follow internal emergency procedures. EH&amp;S will work with the lab, equipment manufacturer, spill contractor or others to complete cleanup. Before cleanup is initiated and as needed, EH&amp;S will arrange for a cleanup contractor to conduct mercury vapor monitoring.</li> <li>2. After cleanup, EH&amp;S will arrange for post-cleanup monitoring to ensure the cleanup was thorough. Even trace amounts of mercury left behind may result in mercury vapor concentrations above regulated exposure limits.</li> <li>3. Any spill incident requires the involved person or supervisor to complete and submit the <a href="#">Online Accident Reporting System (OARS)</a> form to EH&amp;S within 24 hours (8 hours if serious injury or hospitalization).</li> </ol>

For information about elemental mercury spill response, such as for a broken mercury thermometer and other types of mercury spills, see the EH&S website at <https://www.ehs.washington.edu/epo/spills/hgspills.shtm> and the focus sheet "[Mercury Spills](#)".

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