Information
Broken Lamp Clean Up

Applicability
This procedure applies to the University Community (administrators, faculty, staff, and students).

Administrative Authority
Senior Associate Vice President for Operations

Responsible Unit
Environmental Health & Safety
University of Louisville
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502-852-6670
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History
Revision Date(s): September 2016; August 10, 2022
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Categories

Reason for Procedure:
Protect human health and the environment. Mercury, even in small amounts can be toxic to human health and the environment. Contaminated debris generated from the cleanup of a broken lamp, could contain mercury above the EPA regulatory maximum contaminant level (MCL). The MCL for mercury is 0.2 mg/L.

Statement:
Fluorescent, high intensity discharge (HID), and ultra-violet (UV) lights contain low levels of mercury (average 5 mg). Mercury is not released during normal use. However, upon breakage, the vapor is immediately released. This guideline follows

EPA established recommendations which minimize personnel exposure to mercury vapor and should pose no additional harm or consequences to personnel collecting debris from a broken mercury-containing light. Incandescent, halogen, and LED lamps do not contain mercury.

Step 1: Evacuate immediate area for 15 minutes

The highest potential mercury vapor exposure from damaged bulbs occurs immediately after breakage. The most effective way to protect yourself and room occupants from vapor exposure is to ventilate the room with outside air (if possible) *and keep people out of the room for at least 15 minutes after breakage while airborne concentrations decrease.*

Step 2: Gather clean up materials

Collect materials needed to clean up broken bulb:

- Rubber gloves.
- Safety glasses.
- Stiff paper or cardboard.
- Sticky tape.
- Paper towels or newspaper.
- Sealable plastic bag or heavyweight trash bag.

Special note: DO NOT USE VACUUM! Vacuuming is not recommended unless broken glass remains after all other cleanup steps have been taken. Vacuuming could spread mercury-containing powder or mercury vapor. DEHS does have a marked designated vacuum cleaner for broken lamp clean up that PP personnel can borrow, contact DEHS Hazardous Waste at 502-852-2956.

Step 3: Put on personal protection equipment

To include at a minimum, safety glasses or goggles and nitrile or rubber gloves.

Step 4: Debris collection

- Carefully pick up large pieces of the lamp. Place pieces onto paper towel or newspaper.
- For collecting small glass fragments and shards, use sticky tape.
- Place all glass shards and used tape on paper.
- If the debris is on a hard surface, wipe with damp paper towels.
- Place used towels on top of the paper.
- Carefully fold everything into the paper and place it in a plastic bag.
- Discard used gloves into plastic bag.

Step 5: Secure waste bag and label and date; submit for DEHS hazardous waste pick up

- Securely close the plastic bag.
- Label and date the outside of the plastic bag with the words (FOR EXAMPLE as follows) - "Hazardous Waste Broken Mercury Lamp/Debris Toxic".
- Drop off closed marked bag to DEHS EPSC (call or email ahead) or submit pick up request via the DEHS Chemical Hazardous Waste Pick Up Request Form.

Related Information:

40 CFR 261.24