

# Appendix LIGHT BULBS: Mercury-Containing Light Bulb Spill Response Guide

Mercury-containing light bulbs include fluorescent bulbs (e.g., compact, linear, round/circular fluorescent tubes, and U-tube) or high-intensity discharge (HID), metal halide, neon, and sodium bulbs. In the event of a mercury-containing light bulb breakage, follow these procedures: **WHAT TO DO WHEN A LIGHT BULB BREAKS? CONTAIN, REPORT, SECURE, CLEAN UP**

## WHAT TO DO WHEN A LIGHT BULB BREAKS?

- Alert others in the area of a mercury-containing light bulb breakage and keep others away from the broken light bulbs.
- If **broken bulbs contact the skin**, allow glass shards to fall off, then wash contaminated skin with soap and water.
- If **broken bulb shards are in the eye**, use a safety eyewash to flush eyes for 15 minutes or more. Seek medical help if necessary.
- If **broken bulbs are inhaled**, go to an area with fresh air, breathe fresh air while requesting assistance. Wait until help arrives.
- Immediately get medical assistance for the victims by calling **4-2222 from an SJSU phone**, or from all other phones, call **911 or 408-924-2222 (UPD)**. Inform dispatch that the bulb breakage involves an injury and mercury contamination. Do not return to the area of a bulb breakage until the area is cleaned and it safe to return.



## CONTAIN

- Contain the broken light bulbs to an area or room and prevent spreading the broken glass pieces and smaller shards.
- If just one bulb has broken, there is a minimal likelihood of mercury being present in the air above regulatory thresholds.
- If possible, open windows and exterior doorways to allow the room to air out as a precautionary measure.
- Prevent broken glass from spreading to inaccessible areas where clean up will be difficult (e.g. fume hood, behind shelves).
- If a large number of light bulbs are broken on the floor, in a hallway, or other high traffic area, immediately call UPD or EH&S to request assistance. If possible, isolate the area by closing the chemical fume hood if the breakage is inside the hood, closing interior room doors, or closing off hallways and/or exterior doors to prevent the spread of dust or mercury vapors.

## REPORT

- For light bulb breakages, contact your Department Safety Officer or Leadership to report the broken bulb and to request additional assistance.
- Provide important information, such as your name, telephone number, and the physical location from which you are reporting, the extent and severity of any injuries, physical location of the incident (e.g. building and room number), time and type of incident (e.g. broken bulb with or without injury), quantity of broken bulbs involved if known, if there are any additional hazards still present in the immediate area (e.g. open flames), and the safest route to approach the area, if known.

## SECURE

- If can be done safely, work with your coworkers or others in the area to block entrances to the breakage area in order to prevent others from entering the area until emergency responders arrive or the breakage is cleaned up.
- Caution tape and signs can serve as useful tools that may help prevent others from entering the breakage area.

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## CLEAN UP

For light bulb breakages, if trained and comfortable doing so, clean up the broken light bulbs by using the following guidance:

- Before starting to clean up, allow the room to ventilate by opening a window or door to minimize risk of respiratory exposure.
- Wear the appropriate PPE (e.g. protective gloves, shoe covers) to prevent bulb dust or glass from being inhaled or coming into contact with your skin or clothes.
- Gather all the materials needed (see Light Bulb Breakage Kit Contents below) to clean up glass fragments.
- Collect all glass fragments using stiff paper or cardboard. Do not vacuum unless broken glass remains after all other cleanup steps were taken. The vacuum may cause mercury vapor to move into the air and increase exposure. Place all waste in an airtight container (e.g., glass container or resealable bag).
- For any remaining fine particles, small fragments, or dust, use tape (e.g., duct tape or packing tape) to pick up and place the tape in the waste container such as a plastic bag.
- For hard surfaces, use a damp paper towel or disposable wet wipe to wipe the area clean then place them in a waste container.
- **DO NOT** throw broken light bulbs in the trash.
- Label bags of collected broken bulbs with a SJSU Hazardous Waste Label. Identify the waste by listing “Mercury-Containing Debris” as the General Description and write the date of the bulb breakage as the accumulation start date.
- If the light bulb breakage occurred on a carpet, ventilate the area for several hours after completing clean up process.
- Before exiting the room or area, inspect your clothing for signs of dust or glass pieces.
- For larger quantities of broken bulbs, the department safety officer or EH&S will use monitoring equipment to determine the concentration of mercury vapors and/or ensure the area is safe for reoccupancy.
- Contact your Department Safety Team or EH&S to pick up collected waste containers.

## Light Bulb Breakage Kit Recommended Contents

- Protective gloves
- Shoe covers
- Airtight container (e.g., glass container or resealable bag)
- Stiff paper or cardboard
- Duct tape, packing tape, or masking tape
- Caution tape and signs
- Damp paper towels or disposable wet wipes (for hard surfaces)
- Plastic Bags



Duct Tape



## Need Help?

- Ask the lab/shop supervisor
- Ask the department/college safety staff
- Ask SJSU Environmental Health & Safety
  - Environmental Compliance Specialist: david.griffith@sjsu.edu
  - Director: ehs@sjsu.edu; 408-924-1969