

LOCATION	WRITTEN BY:	APPROVED BY:	DATE :	LAST REVISION
All Schools	L. Carriere Brent Vandenbosch	S&H Committee	March 14, 2013	July 7, 2017

HAZARDS PRESENT	PERSONAL PROTECTIVE EQUIPMENT (PPE)	ADDITIONAL REQUIREMENTS
<ul style="list-style-type: none"> <li>Mercury</li> <li>Cuts from broken glass</li> </ul>	<ul style="list-style-type: none"> <li>Rubber or nitrile gloves</li> <li>Safety glasses</li> <li>Protective clothing</li> </ul>	<ul style="list-style-type: none"> <li>none</li> </ul>

### SAFE WORK PROCEDURE

#### PRE-JOB STEPS:

1. Have staff and students leave the room, and avoid the breakage area on the way out.
2. Open a window or door to the outdoors and leave the room for 30-60 minutes.
3. Shut off the central forced-air heating/air conditioning (H&AC) system, if you have one.
4. Collect materials you will need to clean up the broken bulb:
  - o Stiff paper or cardboard
  - o Sticky tape (e.g., duct tape)
  - o Damp paper towels or disposable wet wipes (for hard surfaces)
  - o Glass jar with a metal lid (such as a canning jar) or a cardboard box and a sealable plastic bag.
5. If the spill is large or appears complicated, contact the Divisional Safety Officer and ask for the mercury spill clean-up kit.

#### PROCEDURE:

1. Carefully scoop up glass fragments and phosphorus powder using stiff paper or cardboard and place debris and paper/cardboard in a glass jar with a metal lid. If a glass jar is not available, place the glass, powder and paper into a cardboard box and seal in a plastic bag. (**NOTE:** Since a plastic bag will not prevent the mercury vapor from escaping, remove the plastic bag(s) from the building after cleanup.)
2. Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder. Place the used tape in the glass jar or plastic bag.
3. Wipe the area clean with damp paper towels or disposable wet wipes. Place the towels in the glass jar or plastic bag.
4. Vacuuming of surfaces during cleanup is not recommended unless broken glass remains after all other cleanup steps have been taken. If vacuuming is needed to ensure removal of all broken glass, keep the following tips in mind:
  - o Keep a window or door to the outdoors open;
  - o Vacuum the area where the bulb was broken using the vacuum hose, if available; and
  - o Remove the vacuum bag (or empty and wipe the canister) and seal the bag/vacuum debris, and any materials used to clean the vacuum, in a plastic bag.
5. Promptly place all bulb debris and cleanup materials, including vacuum cleaner bags, outdoors in a trash container or protected area until materials can be disposed of. Avoid leaving any bulb fragments or cleanup materials indoors.
6. Wash your hands with soap and water after disposing of the jars or plastic bags containing bulb debris and cleanup materials.
7. Continue to air out the room where the bulb was broken and leave the H&AC system shut off, as practical, for several hours.

**REGULATORY REQUIREMENTS**

- Manitoba Workplace Safety and Health Regulations M.R. 217/2006
  - Part 2 Subsection 2.1 (a – c) Safe Work Procedures
  - Part 35 WHMIS
  - Part 36 Chemical & Biological Substances
- EPA – Procedure for cleaning up broken CFL bulbs: <http://www2.epa.gov/cfl/cleaning-broken-cfl-0>