Procedure: Cleaning Up Broken Compact Fluorescent Light Bulb (CFL) & Tubes

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Introduction:

Fluorescent light bulbs/tubes contain a very small amount of mercury sealed within the glass tubing. If properly cleaned up, broken bulbs/tubes should not pose a serious health risk. The following directions provide appropriate steps to safely clean up a broken CFL/tube.

Note: This procedure applies also to other mercury containing bulbs such as mercury short-arc bulbs, neon bulbs etc.

Clean up and Disposal

Personal Protective Equipment (PPE):

1. The persons involved in cleaning up the broken tubes should wear disposable rubber or nitrile gloves, safety glasses and protective clothing.
2. If multiple tubes are broken in an enclosed area and/or no venting of the area can be done, wear a respirator (half or full face with mercury cartridges)

Before Cleanup: Air Out the Room

1. Have people leave the room/area until clean up is complete.
2. Open a window (if applicable) and ventilate the room for 15 minutes or more. If no window present, proceed directly to the clean up procedure.
3. Shut off the central forced-air heating/air conditioning system, if there is one.

Cleanup Steps for Hard Surfaces

1. Do not use a vacuum or broom to clean up the broken bulb.
2. Scoop up glass pieces and powder using stiff paper or cardboard and place them in a glass jar with metal lid or in a sealed plastic bag.
3. Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder.
4. Carefully pick up mercury beads if visible by using a cardboard and place them in a sealed container.
5. Wipe the area clean with damp paper towels or disposable wet wipes. Place towels in the glass jar or plastic bag.
Cleanup Steps for Carpeting or Rug
1. Carefully pick up glass fragments and place them in a glass jar with metal lid or in a sealed plastic bag.
2. Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder.
3. If vacuuming is needed after all visible materials are removed, vacuum the area where the bulb was broken.
4. Remove the vacuum bag (or empty and wipe the canister), and put the bag or vacuum debris in a sealed plastic bag.

Cleanup Steps for Clothing and Other Soft Materials
1. If clothing come in direct contact with broken glass or mercury-containing powder from inside the bulb that may stick to the fabric, the clothing should be thrown away. Do not wash such clothing because mercury fragments in the clothing may contaminate the machine and/or pollute sewage.
2. You can, however, wash clothing or other materials that have been exposed to the mercury vapor from a broken CFL, such as the clothing you are wearing when you cleaned up the broken CFL, as long as that clothing has not come into direct contact with the materials from the broken bulb.
3. If shoes come into direct contact with broken glass or mercury-containing powder from the bulb, wipe them off with damp paper towels or disposable wet wipes. Place the towels or wipes in a glass jar or plastic bag for disposal.

Waste Disposal
1. Place the waste material (broken tubes) in a container e.g. cardboard box labelled “Broken tubes”
2. Place any mercury waste (mercury beads) and contaminated clothing in a sealed plastic container and label it using a hazardous waste label (obtain one from PRB Stores).
3. Contact Grounds Department to arrange for a pick up and disposal of waste container(s).
4. Wash your hands after disposing of the jars or plastic bags containing clean-up materials.

Future Cleaning of Carpeting or Rug: Air Out the Room During and After Vacuuming
1. The next several times you vacuum, shut off the central forced-air heating/air conditioning system and open a window before vacuuming.
2. Keep the central heating/air conditioning system shut off and the window open for at least 15 minutes after vacuuming is completed.
Sources: