

Clean-Up Procedures for Broken Fluorescent Lamps

Fluorescent bulbs contain a small amount of elemental mercury, typically between 2 and 5 milligrams in standard four-foot tubes and about the same for most compact fluorescent lamp (CFL) bulbs. Mercury vapors may be released into the air when bulbs break. The mercury released from broken bulbs is mostly in vapor form. If properly cleaned up, broken bulbs or CFLs do not pose a severe health risk. Though the amount of mercury released from a broken tube or CFL is small, proper disposal of the tube or CFL and minimization of personal exposure are necessary.

All Facility Services personnel, including the housekeeping staff, are considered qualified to clean up residues from broken fluorescent bulbs if they follow the cleanup procedures. The Environmental Health and Safety Department may be contacted for consultation and assistance. Assistance, additional cleanup materials, and personal protective equipment (PPE) as needed to personnel to safely clean up minor spills (under 50mL) in their work areas.

Clean Up Procedures

- 1) For your safety and protection, it is crucial that you wear safety glasses during the removal or installation of fluorescent tubes. This simple precaution can prevent potential damage to your eyes in the event of a bulb breakage.
- 2) If supporting a service request for a broken bulb or in a room where the bulb breaks, clear the room until adequately cleaned, ensuring that no one walks through the glass debris. If multiple tubes break in an enclosed area and venting of the area is impossible, wear a respirator (half or full face with mercury cartridges) during cleanup.
- 3) Assemble cleanup materials (safety glasses, gloves, stiff paper or cardboard pieces, empty cardboard boxes, disposal bags, duct tape, dampened paper towels, or disposable wet wipes).
- 4) Wear safety glasses to protect against glass shards and disposable gloves to prevent skin contact with mercury. Scoop up broken glass shards with pieces of stiff paper or cardboard and place them in a disposal bag. Large bulb pieces may be carefully picked up by hand and put in the bag. Work from the outer areas of debris inward to avoid stepping on residues and broken glass. Carefully pick up any visible mercury beads using flat cardboard or paper and place the waste in a sealed container.
- 5) Use duct tape to pick up glass shards or residues from surfaces and place them in the bag. Wipe hard surfaces clean with damp paper towels or wet wipes and place them in the waste container.
- 6) Vacuum cleaners may be used to clean broken lamps/bulbs on carpet and other floor

surfaces, but they must be HEPA-filtered. The filter bag must be removed immediately after use and disposed of with other contaminated materials within the waste container. Do not use a broom or dustpan to clean broken lamps/bulbs.

- 7) When cleanup is complete, carefully remove the gloves and place them in the waste container. Seal the bag with tape, put the material into a second bag, and seal the outer bag with tape. Place the bagged material into a cardboard box and label it “Hazardous Waste” and “Used Broken Lamps.”
- 8) Wash your hands and arms afterwards with soap and water.
- 9) It's crucial to dispose of clothing directly contaminated with broken glass or mercury-containing powder from inside the bulb. Washing such clothing is not recommended, as it may lead to machine contamination and sewage pollution due to mercury fragments. Clothing or other materials exposed indirectly to the mercury vapor from a broken CFL, such as the clothing you wore during the cleanup, may be washed. Wash contaminated skin surfaces thoroughly.
- 10) Store the waste box in a secured area and contact the EH&S Department (504-568-6585) to remove the cleaned-up material.
- 11) Notify your supervisor immediately of the exposure. The supervisor shall submit an Incident/Accident Report form ([online fillable DA 2000](#) via SafetyStratus DA 2000) to EH&S.