

## **Clean-Up Procedures for Broken Fluorescent Lamps**

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

All Facility Services personnel, to include 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.

### **Clean Up Procedures**

- 1) Safety glasses must be worn during removal or installation of fluorescent tubes to prevent damage to eyes if the bulb breaks.
- 2) If supporting a service request for a bulb that was just broken or if you are in a room where the bulb breaks, have others in the room leave until cleanup is completed, making sure that no one walks through the area of broken glass. If multiple tubes are broken in an enclosed area and/or venting of the area is not possible, wear a respirator (half or full face with mercury cartridges)
- 3) Assemble cleanup materials (safety glasses, gloves, stiff paper or cardboard pieces, empty cardboard box, 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 in disposal bag. Large bulb pieces may be carefully picked up by hand and placed 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 placing the waste in a sealed container.
- 5) Use duct tape to pick up glass shards/residues from surfaces, and place in bag. Wipe hardsurfaces clean with damp paper towels or wet wipes, and place within the waste container.
- 6) Vacuum cleaners may be used to cleanup broken lamps/bulbs on carpet and other floor surfaces but must be HEPA-filtered. The filter bag must be removed immediately after use and disposed with other contaminated materials within the waste container. Do not use a broom/dustpan to clean broken lamps/bulbs.

- 7) When cleanup is complete, carefully remove gloves and place within waste container. Seal the bag with tape, place 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) Clothing contaminated directly with broken glass or mercury-containing powder from inside the bulb that may stick to the fabric, should be thrown away. Do not wash such clothing because mercury fragments in the clothing may contaminate the machine and/or pollute sewage.

Clothing or other materials that have been exposed indirectly to the mercury vapor from a broken CFL, such as the clothing you are wearing when you performed the cleanup, may be washed.

Skin surfaces contacted by broken bulb should be washed thoroughly. Your supervisor must be notified of the exposure submit an Incident/Accident Report form ([DA 2000](#)) to EH&S.

- 10) Store the waste box in a secured area and contact the EH&S Department (504-568-6585) for removal of the cleaned-up material.