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HANDLING SMALL NUMBERS OF BROKEN FLUORESCENT LAMPS

Health Effects: No adverse effects are expected from occasional exposure to broken lamps.

Mercury: EPA's ENERGY STAR[®] website contains the following information:

"CFLs contain a very small amount of mercury sealed within the glass tubing - an average of 4 milligrams - about the amount that would cover the tip of a ballpoint pen. By comparison, older thermometers contain about 500 milligrams of mercury - an amount equal to the mercury in 125 CFLs. Mercury is an essential part of CFLs; it allows the bulb to be an efficient light source. No mercury is released when the bulbs are intact (not broken) or in use."

[\[http://www.energystar.gov/ia/partners/promotions/change_light/downloads/Fact_Sheet_Mercury.pdf\]](http://www.energystar.gov/ia/partners/promotions/change_light/downloads/Fact_Sheet_Mercury.pdf)

The average four-foot fluorescent lamp, meanwhile, contains around 8 milligrams, or about 60 times less mercury than is contained in a typical 500-milligram fever thermometer. With such small amounts of mercury, therefore, broken lamps would appear to pose virtually no risk of harm. Legal requirements for disposal vary, however, and in some jurisdictions mercury-added lamps are prohibited from disposal in landfills or incinerators.

Phosphor: A five-year study of phosphor by the Industrial Hygiene Foundation of the Mellon Institute found no significant adverse effects, either by ingestion, inhalation, skin contact, or eye implant. Also, there have been no significant adverse effects on humans by any of these routes during the many years of its manufacture or use. The phosphor is somewhat similar to the inert calcium phosphate-fluorides that occur in nature. Phosphor is not phosphorous. Heavy metals were removed from phosphor fifteen years ago or more. At the end of lamp life mercury is attached to these phosphors.

Universal Waste Rule Requirements: Under the EPA universal waste rule, a lamp that does not pass the TCLP test and is broken must be cleaned up and placed in a container. The container must be closed, structurally sound, compatible with lamps, and lacking any evidence of spillage. This advice is applicable to any mercury-containing lamp. In some States, Universal Waste status is lost when lamps are broken and must be handled as a full hazardous waste. It is important to check with your local, state, or federal office for the latest update in regulatory status or go to www.lamprecycle.org.

Recommended Broken Lamp Handling Practices: Guidance on proper methods of handling broken fluorescent lamps is available from the US EPA and from many state agencies and local health and environmental authorities. The EPA guidelines can be found at <http://www.epa.gov/mercury/spills/index.htm>. Small numbers of broken lamps typically do not present a hazard to human health or the environment, provided the area is adequately ventilated and proper cleanup procedures are used.