

DPS Environmental Myth Busters—#4 Mercury in Compact Fluorescent Lamps

As we endeavour to reduce our energy consumption worldwide, incandescent globes are being replaced with energy efficient compact fluorescent lamps (**CFLs**). At Parliament House there are thousands of CFLs installed and a program is in place to phase out the remaining incandescent globes.

This has raised concerns about the dangers of mercury contained in CFLs.

Q: What are the facts about mercury in CFLs?

CFLs contain small quantities of mercury. Most modern CFLs contain less than 5 milligrams—an amount equivalent to the tip of a ballpoint pen. To put this into perspective, it takes between 100 and 600 CFLs to make up the mercury in a common household thermometer. An average watch battery contains up to 25 milligrams of mercury.

There is no current substitute for mercury in CFLs as it is key to producing an efficient light source. The past decade has seen a significant reduction in the amounts of mercury used in CFLs with better manufacturing processes. There is ongoing research on how to manufacture mercury free CFLs.

Q: Where is mercury found?

Mercury is an element found naturally in the environment. For instance, coal contains mercury, which can be released naturally over time or artificially through combustion processes (eg coal fired power stations). It is important to note that using CFLs actually *reduce* the amount of mercury being released into the atmosphere. They do this by decreasing electricity consumption and, consequently, electricity production from coal combustion. Using CFLs is far better for the environment than using standard incandescent lamps.

Q: Are CFLs safe to use?

The small amount of mercury sealed in a CFL does not pose a hazard to people while it is in use or in storage. However, mercury is a toxic metal and every product containing mercury should be handled with care. DPS Electrical Services has procedures to dispose of used CFLs safely and clean up broken CFLs promptly.

Q: How do I safely dispose of a used CFL?

All CFLs at Parliament House are collected for recycling. For recycling at home, check with [ACT NoWaste](#) for your recycling options. If recycling isn't possible, then as a last resort, burnt-out CFLs could be placed inside a plastic bag, firmly sealed, and then put into your household rubbish.

Q: How do I safely clean up a broken CFL?

Research indicates that there is no immediate health risk to you or your family should a CFL bulb break. You can minimize the risks by following these clean-up and disposal steps.

- (a) Sweep up (don't vacuum) all the glass fragments and fine particles.
- (b) Place broken pieces in a sealed plastic bag and wipe the area with a damp paper towel to pick up any stray shards of glass or fine particles. Place the used towel in the plastic bag as well.
- (c) If weather permits, open windows to allow the room to ventilate.

Contact Dave Millar (A/g Energy and Water Management Officer) if you have any queries on extn 5032 or email dave.millar@aph.gov.au.