Recycling lags behind compact fluorescent push
By MARC LEVY – May 18, 2008

MECHANICSBURG, Pa. (AP) — It’s a message being drummed into the heads of homeowners everywhere: Swap out those incandescent lights with longer-lasting compact fluorescent bulbs and cut your electric use.

Governments, utilities, environmentalists and, of course, retailers everywhere are spreading the word.

Few, however, are volunteering to collect the mercury-laced bulbs for recycling — despite what public officials and others say is a potential health hazard if the hundreds of millions of them being sold are tossed in the trash and end up in landfills and incinerators.

For now, much of the nation has no real recycling network for CFLs, despite the ubiquitous PR campaigns, rebates and giveaways encouraging people to adopt the swirly darlings of the energy-conscious movement. Recyclers and others guess that only a small fraction of CFLs sold in the United States are recycled, while the rest are put out with household trash or otherwise discarded.

"In most parts of the country, it requires getting in your car and burning up your gas and going out of your way, a long ways, and people are unlikely to do this," said Paul Abernathy, the executive director of the Association of Lighting and Mercury Recyclers in Calistoga, Calif.

Sales of the bulbs have skyrocketed this decade — doubling last year to about 380 million after registering just 17,000 in 2000, according to the U.S. Environmental Protection Agency.

Recycling efforts, though, are spotty at best.

Some communities are arranging special CFL drop-off events while some city or county hazardous waste collection facilities accept them.

Swedish retailer IKEA collects the bulbs at its 34 U.S. stores and manufacturer Osram Sylvania offers a mail-in program. In Nevada, customers of Sierra Pacific Power Co. can now take used CFLs to eight landfills to be recycled.

A few governments have targeted retailers.

The city of Madison, Wis., requires retailers that sell the bulbs to also collect them for...
recycling, although stores can charge a fee for it. Maine and Vermont fund programs that distribute collection bins to retailers, from neighborhood hardware stores to Wal-Marts, and get the bulbs to recyclers, either by pickup or mail.

Pennsylvania spent $8,000 to distribute white plastic buckets to several dozen businesses, community organizations and local governments that wanted them. The buckets come with a seal-tight lid and the state pays the postage to send them to a recycler.

Two of the buckets are nestled among the expanding display of CFLs lined up on wall pegs at Ritter's True Value Hardware in the central Pennsylvania town of Mechanicsburg, looking like something a store employee inadvertently left there while cleaning up — not a fledgling attempt to collect the bulbs for safe disposal.

Compact fluorescent bulbs each contain roughly 5 milligrams of mercury, which health professionals say is tiny in relation to the amount in a glass thermometer. Using that estimate, almost 2 tons of mercury were in the 380 million sold last year. By comparison, about 50 tons of mercury are spewed into the air each year by the nation's coal-fired power plants.

The longer fluorescent tubes, in use since World War II, contain slightly more mercury per lamp, but recyclers typically collect them in bulk from the biggest users, businesses and factories, which are required by federal law to dispose of them properly.

Even if recycling efforts have been meager, environmentalists and government officials say it is important to balance the positives of CFLs against any negatives.

For instance, CFLs can curtail the need for energy and thereby cut pollution from power plants. According to the Union of Concerned Scientists, a coal-fired power plant will emit about four times more mercury to keep an incandescent bulb glowing, compared with a CFL of the same light output.

"People should care about mercury and if they do, they should be working to save energy wherever they can and CFLs are a great answer to that," said John Rogers, a senior energy analyst for the Cambridge, Mass.-based group.

To recycle his spent CFLs, Rogers bags them, stores them in the basement and drops them off when his town, North Reading, Mass., holds a recycling event.

David Stotler, a railroad clerk from Maytown, Pa., does not know of a local option to recycle CFLs, so he threw out the one or two in his home that burned out.

The bulbs do not release mercury if they are used properly and recycled, and the EPA and state governments have written guidelines for how to clean up the mercury from a broken bulb.

Kim N. Dietrich, a professor of environmental health at the University of Cincinnati, said the bigger concern is the hazard that would result if the mercury from millions of bulbs escapes
into the air and waterways before working up the food chain.

"I'm just amazed that the government is not paying more attention to this," Dietrich said.

Manufacturers have looked at substitutes for mercury in the bulbs, but been unable to synthesize the chemical reaction. Still, they say they are working to reduce the amount of mercury in each bulb.

In search of a solution, a group from Brown University in Providence, R.I., has submitted a packaging invention for patent protection: a cardboard sandwich with an element in between that absorbs mercury.

The bulbs can be packaged in the material for retail sale and, after they burn out, returned in it for collection and recycling. If a bulb breaks, the packaging can absorb the mercury residue like a sponge, said environmental studies professor Steven P. Hamburg.

Hamburg estimated that the average CFL will save a user roughly $35 over the bulb's life, compared with the power costs of an incandescent bulb, and cost 25 cents to recycle.

At Ritters hardware, co-owner Jack Winchell wants his store to be recycling-friendly — he also accepts used motor oil and batteries — but said he can't do it alone on CFLs if there's no government subsidy.

"If I raise my bulbs 50 cents to pay for the recycling, then I'm not going to be competitive," Winchell said. "Somehow we need to have a shared responsibility for recycling these."

On the Net:
- EPA's Energy Star site on CFLs: http://www.energystar.gov/index.cfm?c=cfls.pr_cfls
- Maine CFL breakage study: http://www.state.me.us/dep/rwm/homeowner/cflreport.htm
- EPA's recycling site locator: http://www.epa.gov/epaoswer/hazwaste/id/univwast/lamps/live.htm
- CFL recycling site locator: http://www.recycleabulb.com/locations/index.aspx
- Osram Sylvania's mail-in recycling site: http://www.sylvania.com/Recycle/default.htm