



# Eco Wise



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## Risks and Rewards: Mercury in Compact Fluorescent Lamps



The use of compact fluorescent light bulbs (CFLs) is on the rise. Over 290 million CFLs were sold in 2007— more than double the 2006 number. They now make up 20% of the U.S. light bulb market, and growing. The reasons are simple. They last about 10 times longer and use 75 percent less electricity than incandescent bulbs. Some Public Housing Authorities are changing all their bulbs to CFLs and experiencing [significant energy savings](#).



The amount of mercury in a CFL, compared to a dime.

However, people should be aware that CFLs contain a small amount of mercury, less than 5 milligrams per bulb.

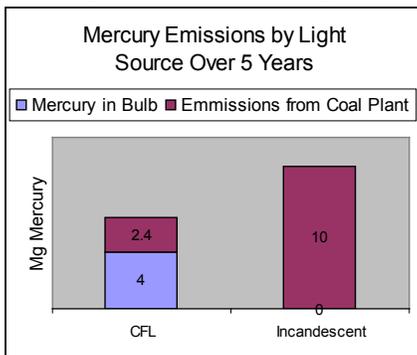
Mercury is a naturally occurring metal that accumulates in the body and can harm the nervous system of a fetus or a young child if ingested in sufficient quantity. No mercury is emitted when compact fluorescents are intact, but a small amount is vaporized if they break, posing a small risk of mercury poisoning to infants, young children and pregnant women. See our [Maintenance Corner](#) for detailed clean-up instructions.



CFLs now come in a variety of sizes and shapes, appropriate for any application.

Overall, the advantages of CFLs far outweigh their disadvantages. Even though they contain mercury, since

they are so much more efficient, CFLs are responsible for less mercury entering the atmosphere than incandescent bulbs. Coal-fired power plants emit mercury as they produce electricity. Since it is less efficient, an incandescent bulb causes more mercury emissions from the power plant than the mercury contained in a CFL and the power plant emissions of keeping that CFL lit. Consumers should continue to use them until mercury-free alternatives are available.



**ENERGY STAR®** qualified CFLs are tested to guarantee light quality and longevity. [Find a recycling facility](#) that accepts CFLs and other mercury-containing materials.

## LED Lighting Can Save

Light Emitting Diodes (LEDs) are more efficient and last longer than CFLs, and LEDs don't contain mercury. Used for years as indicator lights, and more recently in EXIT signs and street lights, LEDs will soon be widely available to the residential lighting market. [ENERGY STAR criteria](#) for residential LEDs, also referred to as Solid State Lighting (SSL), have been released and will take effect in late 2008.

If you have 50 EXIT signs currently powered by incandescent bulbs, switching to LED's will save you \$1,800 annually on electric bills (based on \$0.11/kWh). Switching 50 fluorescent lights to LED's will save \$963 each year. Check out this [LED Savings Calculator](#) to determine your potential for savings.



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## Events & Training

[Energy Performance Contracting for Public Housing Authorities \(PHA's\)](#)

June 16-20  
Chicago, IL

[08 Greener Homes National Training](#)

June 17 - 19  
Reno, NV

[Clean Energy: An In-Depth, No-Hype Introduction](#)

June 24-25  
Alexandria, VA

[Innovation in Energy Efficiency and Conservation: The Home and the Community](#)

July/14/2008 - July/15/2008  
Chicago, IL

[Multifamily Buildings 2008 Conference](#)

July 21-23  
Brooklyn, NY

[SolWest Renewable Energy Fair](#)

Jul 25-27  
John Day, OR

[2008 NeighborWorks/HUD Place-based Trainings](#)

July 15-17 & 22-24 Denver, CO  
August 18-22 Chicago, IL  
Look here to see the [full schedule](#).

[2008 National Healthy Homes Conference](#)

September 15-17  
Baltimore MD

## Lead Poisoning: Still a Threat to America's Children

30 years after the sale of lead paint was banned and 22 years after leaded gasoline was outlawed, lead poisoning is still a threat in the United States. Lead in existing paint, dust and soil is responsible for poisoning 1.6 percent of children six and younger nationwide. Intact, lead paint is no threat. But when the paint chips or otherwise deteriorates, it can mix with household dust and soil, or be ingested by young children as paint chips, elevating blood lead levels. Approximately 24 million homes in the U.S. have at least one type of lead hazard; yard soils of [over six million homes have hazardous levels of lead](#).



Exposed soil around the home may contain high levels of lead deposited from chipping paint or left behind from the days of leaded gasoline.

Even "low level" lead exposure reduces children's ability to learn. Lead poisoning in children can lead to behavioral problems, hyperactivity, developmental delays and brain damage. If detected soon enough, these symptoms can usually be remedied.

Landlords of PHAs must follow [HUD's Lead Disclosure Rule](#), but proper remediation is also crucial to eliminating this household threat. A year-long investigation by the [New Jersey Public Advocate's Office of Camden, Trenton, Newark, Irvington, and East Orange](#), where more than 1/3 of reported lead poisonings occurred in 2005, found numerous problems with the way the state screens, remediates and follows-up on lead poisoning cases. According to the report, lead paint remains a serious danger in NJ, especially for the youngest and poorest residents of urban areas with old housing. The report cited the fact that more than 80% of dwellings where children suffered lead poisoning in the last decade still had high levels of the toxin. Supposed cleanups were poorly done, as a third of the dwellings had already undergone lead remediation.

The HUD Web site contains an abundance of useful information about lead, including multiple [grant programs](#) and a [database of regional remediation programs](#).

The [Office of Public and Indian Housing](#) has issued a [lead compliance toolkit](#) for the Housing Choice Voucher Program.

The [Public Housing Environmental and Conservation Clearinghouse \(PHECC\) Web site](#) has a new look, feel and focus. More informative and helpful than ever, PHECC brings you hot-topics in the green scene that relate to public housing.

This monthly e-mail update is brought to you by HUD's Public Housing Environmental and Conservation Clearinghouse (PHECC) featuring news and resources to help agencies manage energy and water costs.

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Old lead paint in bad repair chips off, presenting a health threat to children who ingest the paint as chips or dust.

## Regional Spotlight MPHA Gets the Lead Out

The [Minneapolis Public Housing Authority](#) (MPHA) in cooperation with [Hennepin County Housing, Community Works and Transit Department](#) (HCWT) has greatly reduced the threat of lead poisoning for MPHA residents.

HCWT was awarded [Lead Hazard Reduction Demonstration \(LHRD\) grants](#) from HUD in 2003 and 2005 and quickly realized that MPHA served the demographic most at risk for lead poisoning – low-income urban-dwellers in older buildings. Under the proactive guidance of Lydia Johnson, MPHA Inspector Supervisor, 193 housing units have been tested for lead hazards and 107 lead reductions have been completed since May 2006. \$340,000 in grant monies has been matched by \$295,000 from property owners and managers to conduct the testing and reductions.

For more information contact Michael Jensen, Program Manager, 612-348-2114, [michael.jensen@co.hennepin.mn.us](mailto:michael.jensen@co.hennepin.mn.us) or Lydia Johnson, 612-342-1440.

## Resources

[EPA's Basic Information on Lead in Paint, Dust and Soil](#)

[Office of Healthy Homes and Lead Hazard Control Web site](#)

Download HUD's Housing Choice Voucher [Lead Compliance Toolkit](#)

[ENERGY STAR'S Frequently Asked Questions about CFLs and Mercury](#)

## Maintenance Corner: How to Handle Broken Compact Fluorescent Bulbs

The Maine and Vermont-based [Mercury Policy Project](#) recommends the following clean-up procedures for broken bulbs:

- Open windows and keep people and pets away for 15 minutes before clean-up is started.
- Do not use a vacuum cleaner. Wearing rubber gloves, carefully remove the larger pieces and place them in a secure closed container, preferably a glass jar with a metal screw-top lid and seal like a canning jar.
- Scoop up the smaller pieces and dust using stiff paper, such as index cards or playing cards.
- Use tape to pick up the fine pieces, then use a wet wipe or a damp towel.
- Place all waste into the glass container, including clean-up materials.
- Remove the container from your residence and call the local solid waste district for disposal instructions.
- Continue ventilating the room for several hours.
- Wash your hands and face.
- Consider discarding throw rugs or the area of the carpet where the break occurred.
- Open windows the next several times you vacuum to provide good ventilation.

Email us with your Maintenance Corner questions at [pheccinfo@nelrod.com](mailto:pheccinfo@nelrod.com).