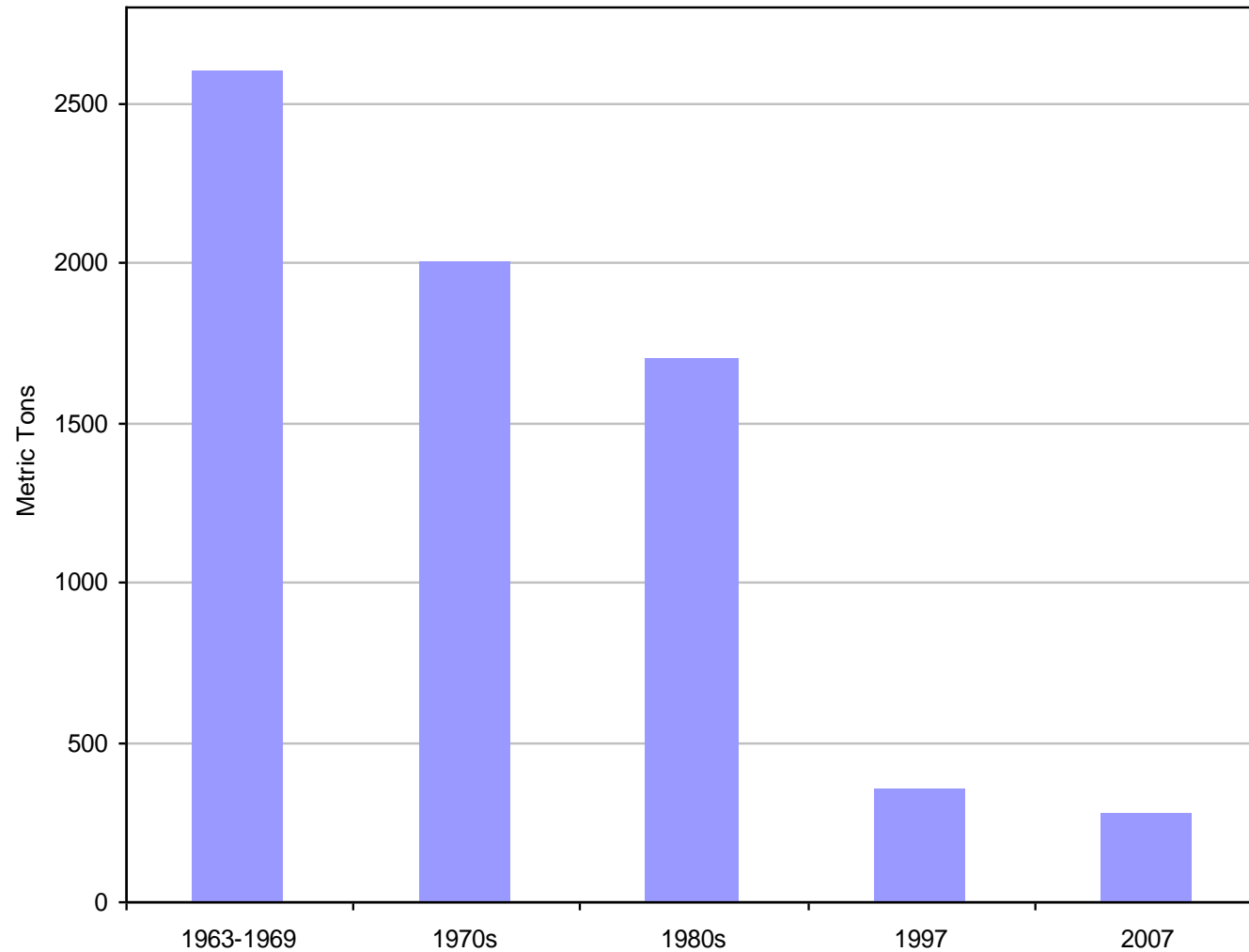


# **EPA Update: The Mercury and Recycling Issue**

Peter Banwell  
ENERGY STAR Marketing Team Leader  
2009 Lighting Partner Meeting  
March 19, 2009

# Mercury Use in Products and Industrial Processes



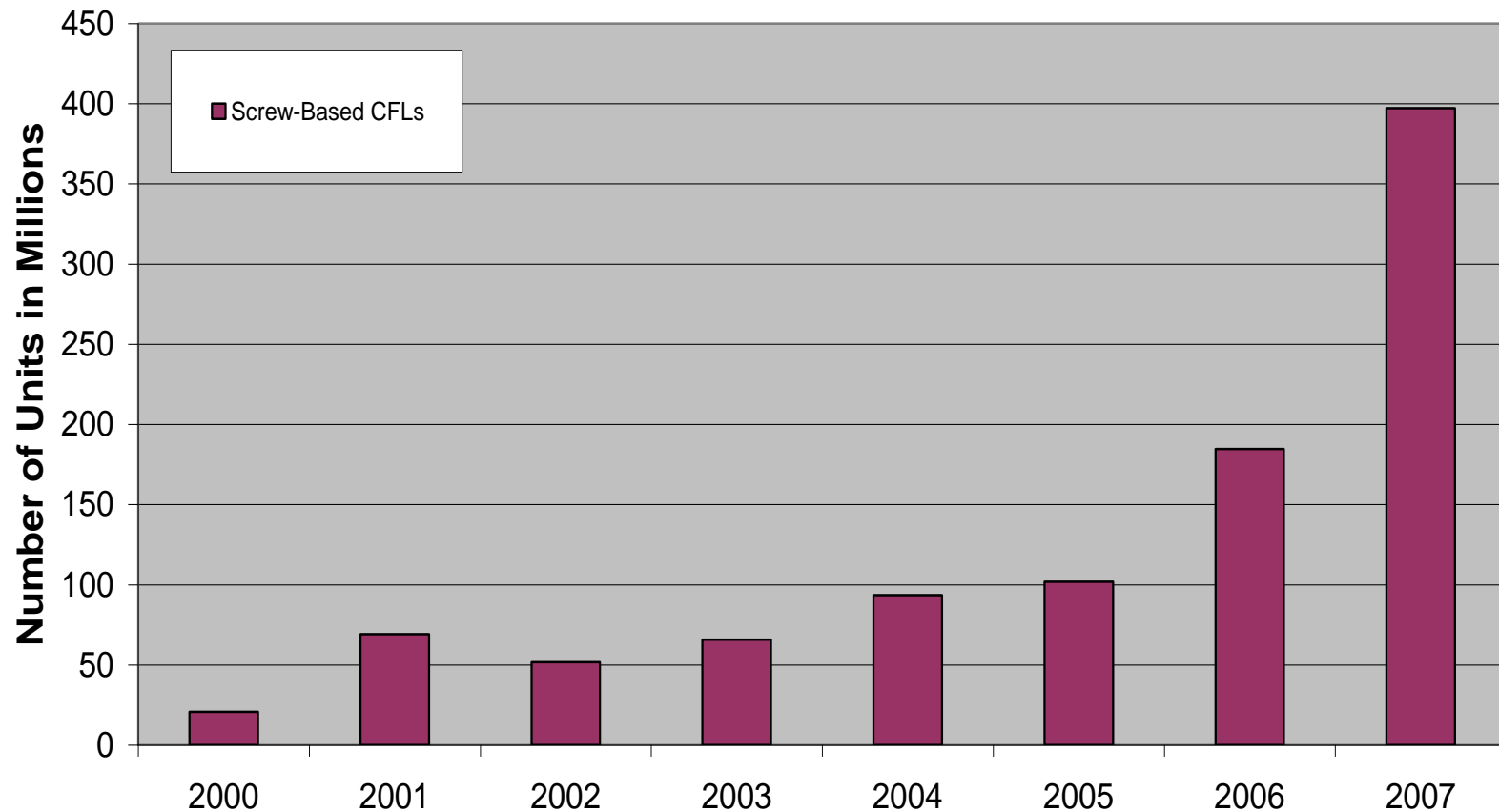
# Top 5 Sources of Mercury (2005)



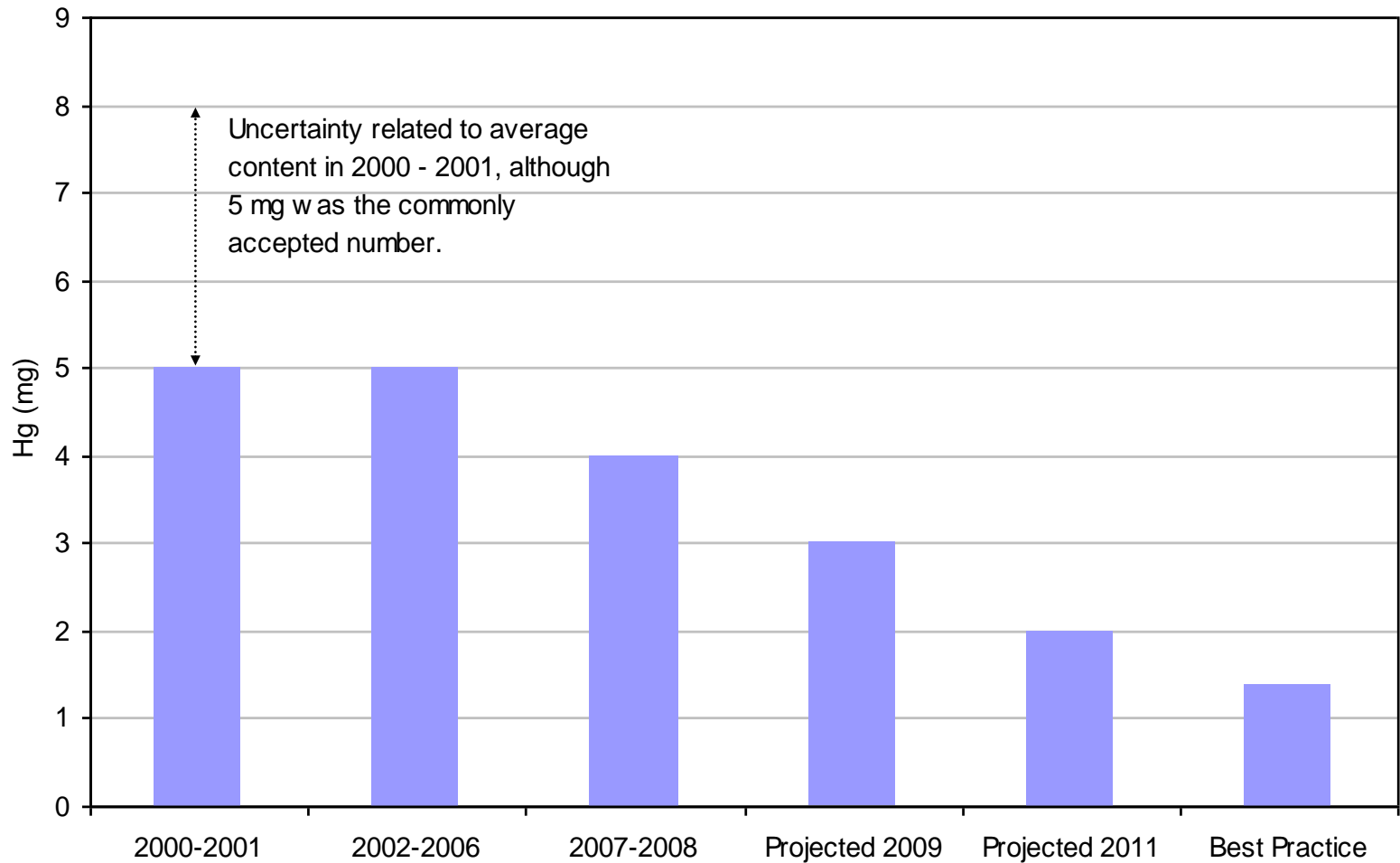
1. Switches and Relays
2. Dental Amalgam
3. Measurement and Control Devices
4. Batteries
5. Fluorescent Lamps (all types)

Source: Cain 2007

# CFL Imports – Estimated Sales



# Source Reduction, CFLs



# Liquid Mercury Dosing Technique



# Solid Dosing Technique



Mercury-Containing Light Bulb (Lamp) Collection and Recycling Programs Where You Live | Univers - Windows Internet Explorer

US EPA http://www.epa.gov/epawaste/hazard/wastetypes/universal/lamps/live.htm

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US EPA Mercury-Containing Light Bulb (Lamp) Collection and R...

U.S. ENVIRONMENTAL PROTECTION AGENCY

**Wastes - Hazardous Waste - Universal Wastes - Bulb/Lamp Recycling**

Recent Additions | Contact Us Search: All EPA This Area Go

You are here: EPA Home » Wastes » Hazardous Waste » Waste Types » Universal Waste » Bulb/Lamp Recycling » State Mercury-Containing Light Bulb (Lamp) Recycling Programs Where You Live

## Mercury-Containing Light Bulb (Lamp) Collection and Recycling Programs Where You Live

Households and consumers can use the links below to find out where to take their used fluorescent light bulbs, including compact fluorescent light bulbs (CFLs). Businesses can learn about how to properly recycle/dispose of used mercury-containing light bulbs by visiting [Universal Waste Handlers - Steps to Managing Your Universal Waste Lamps in an Environmentally-Safe Manner](#).

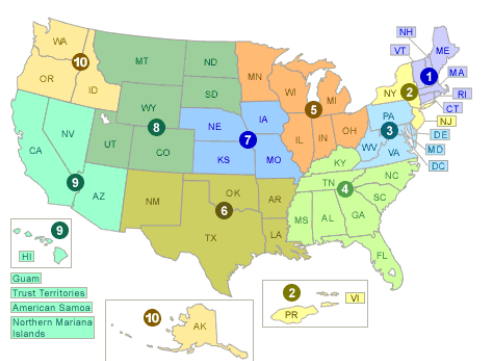
Use the links below to find out about household hazardous waste collection programs in your area. Households and consumers can often recycle/dispose of their mercury-containing bulbs by taking them to their local household hazardous waste collection program. Household hazardous waste collection programs are usually organized by counties or local solid waste authorities. These programs will vary by location. Contact your local solid waste authority for more details, or use the links below.

- In general, household hazardous waste collection programs accept waste only from residents, although some programs include small businesses as well.
- The service is usually free, though some may charge a small fee.
- Some household hazardous waste collection programs only collect these items once or twice a year, so residents will have to hold on to their light bulbs until the collection takes place. Other collection programs provide collection services throughout the year.
- In addition to mercury-containing light bulbs, these programs may also collect paints, pesticides, cleaning supplies or batteries.

**What Is Universal Waste?**

- Batteries
- Pesticides
- Mercury-Containing Equipment
- Bulbs (Lamps)

Choose your region or state from the map below to find where to take your mercury-containing light bulbs (i.e. fluorescent light bulbs and compact fluorescent light bulbs (CFLs)).



Alaska  
Alabama

Idaho  
Illinois

Montana  
North Carolina

Puerto Rico  
Rhode Island

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# Earth 911.com



CFLs near 97204 - Recycling Centers - Earth911.com - Windows Internet Explorer

http://search.earth911.com/?what=CFLs&where=97204&max\_distance=25&family\_id=&latitude=&longitude=&country=&province=&city=

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CFLs near 97204 - Recycling Centers - Earth911.com

Earth 911.com Making Every Day Earth Day™

Local Recycling Services Looking to recycle aluminum? Find your listing at Local.com

Prices for Scrap Metal Current rate paid for copper, brass, aluminum, cans, etc. in Denver, CO

Find recycling centers for  Near

aluminum cans, computers, paint zip or address, city, state

Other Materials	Fertilizers	Herbicides	Medical Sharps	Photographic Chemicals
Hazardous	Fire Extinguisher	Household Cleaners	Medical Waste	Pool Chemicals
Asbestos	Fluorescent Bulbs	Insecticides	Mercury Thermostats	Smoke Detectors
Compact Fluorescent Light Bulbs	Fungicides	Items Containing Mercury	Pesticides	Solvents

Recycling centers accepting "CFLs" near "97204"

Within 25 miles

**Multnomah County Metro Central HHW Station**  
2 mi. Municipal Location  
(503) 234-3000  
6161 Northwest 61th Avenue  
Portland, OR 97210  
Fluorescent Bulbs #2 Plastic (HDPE Colored) #5 Plastic (Polypropylene) Adhesives Aerosol Cans  
Aluminum Cans Antifreeze +50 more  
For residents of Clackamas County, Multnomah County, Washington County only.

**Metro Central Transfer Station HHW Program**  
4.8 mi. Municipal Location  
(503) 234-3000  
6161 Northwest 61st Street  
Portland, OR 97210  
Compact Fluorescent Light Bulbs Fluorescent Bulbs Adhesives Aerosol Cans Antifreeze  
Asbestos Brake Fluid +25 more  
For residents of Clackamas County, Multnomah County, Washington County only.

**Home Depot**  
5.5 mi. Location  
(503) 261-8543  
10120 Southeast Washington Street  
Portland, OR 97216  
Compact Fluorescent Light Bulbs

**Portland, Oregon**

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Recycle A Bulb - Veolia Environmental Services - Windows Internet Explorer

http://www.recycleabulb.com/locations/index.aspx

Norton Phishing Protection on Identity Safe Log-ins

Recycle A Bulb - Veolia Environmental Services

Recycle A Bulb - Veolia Environmental Services  
http://www.recycleabulb.com/locations/index.aspx

**Find a Location**

Enter your 5-digit Zip Code and select to search for locations within a given number of miles.

Zip Code:

Within:

16 locations found.

Company	Location	Materials*	Cost*	Sponsor	Location
THE HOME DEPOT	4401 SOUTHWEST 110TH AVE BEAVERTON, OR, 97005 ph: (503) 469-4242	CFLS	NO	The Home Depot	<a href="#">View Map</a>
METRO SOUTH TRANSFER STATION HHW PROGRAM	2001 WEST WASHINGTON STREET OREGON CITY, OR, 97045 ph: (503) 234-3000	All Lamps	LIMITED	HHW	<a href="#">View Map</a>
THE HOME DEPOT	2002 WASHINGTON STREET OREGON CITY, OR, 97045 ph: (503) 723-3181	CFLS	NO	The Home Depot	<a href="#">View Map</a>
THE HOME DEPOT	25101 SE STARK STREET TROUTDALE, OR, 97060 ph: (503) 674-3944	CFLS	NO	The Home Depot	<a href="#">View Map</a>
THE HOME DEPOT	1950 SE MINTER BRIDGE RD HILLSBORO, OR, 97123 ph: (503) 693-9090	CFLS	NO	The Home Depot	<a href="#">View Map</a>
THE HOME DEPOT	20260 SW PACIFIC HWY SHERWOOD, OR, 97140 ph: (503) 925-8447	CFLS	NO	The Home Depot	<a href="#">View Map</a>
METRO CENTRAL TRANSFER STATION	6161 NORTHWEST 61ST	All Lamps	LIMITED	HHW	<a href="#">View</a>

Participating Locations  
3037

Can't Find A Return Location?

Recycling as easy as 1-2-3

FILL SEAL MAIL  
Order Now!

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# ENERGY STAR Mercury Web Section



Compact Fluorescent Light Bulbs (CFLs) and Mercury : ENERGY STAR - Windows Internet Explorer

http://www.energystar.gov/index.cfm?c=cfls\_pr\_cfls\_mercury

Norton Phishing Protection on Identity Safe Log-ins

Compact Fluorescent Light Bulbs (CFLs) and Mercury

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U.S. Environmental Protection Agency • U.S. Department of Energy

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Products Home Improvement New Homes Buildings & Plants Partner Resources

**Products**

- Appliances
- Heating & Cooling
- Water Heaters
- Home Electronics
- Lighting
  - Light Bulbs (CFLs)**
  - Light Fixtures
  - Decorative Light Strings
  - Advanced Lighting Package
  - Ceiling Fans
  - Commercial LED Lighting
- Commercial Food Service
- Office Equipment
  - Purchasing & Procurement
  - Interested in Partnering?
- Join ENERGY STAR

Home > Products > Lighting > CFLs > Compact Fluorescent Light Bulbs (CFLs) and Mercury

## Compact Fluorescent Light Bulbs (CFLs) and Mercury

Mercury is an essential element in the operation of fluorescent lighting; it allows the bulbs to be an efficient light source. Because CFLs contain trace amounts of mercury, it is important to educate yourself on proper use, recycling and disposal of these products.

### The Facts about CFLs and Mercury

- Because CFLs use less electricity than traditional light bulbs, they reduce demand for electricity; that reduction means less mercury is emitted from power plants.
- CFLs contain a very small amount of mercury — an average of 4 milligrams in each bulb.
- No mercury is released when the bulbs are intact or in use.

### Why the EPA, DOE and others are promoting the use of CFLs

CFLs use significantly less energy than traditional light bulbs (75% less). If every home in America replaced just one incandescent light bulb with an ENERGY STAR qualified CFL, we would save enough energy to light more than 3 million homes and prevent greenhouse gas emissions equivalent to that of 800,000 cars. And even though CFLs contain a small amount of mercury that could ultimately end up in the environment, that amount is significantly less than the amount of mercury avoided as a result of the energy savings.

### Recycling and Disposing of CFLs

Like any other product containing potentially hazardous materials that you use in your home, CFLs come with some special instructions.

[Learn what you should do if a CFL breaks in your home](#) (27KB), and get EPA's recommendations for recycling and responsibly disposing of CFLs at the end of their life cycle.

You may have heard that the government is requiring all light bulbs to be more efficient in the next few years. [Learn more about how the Energy Independence and Security Act of 2007 will affect the sale of light bulbs.](#)

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# Legislation



- S. 906 - Mercury Export Ban Act of 2008
  - Prohibits transfer of elemental mercury by federal agencies, bans U.S. export of elemental mercury by 2013, and requires the DOE to designate and manage an elemental mercury long-term disposal facility.
- State Product Stewardship Legislation
  - Vermont and Washington
  - Maine (draft language only; not yet introduced)

# Thank You



Peter Banwell

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