

EPA's Draft Mercury Use Reduction Program

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Purpose:

To provide an overview of the EPA's Draft Mercury Use Reduction Program.

Problem Statement:

Mercury is released during the manufacture of products, through use (i.e., breakage or leaks) and from products at the end of their life cycle as the result of inappropriate disposal and lack of collection programs.

Reduction Program Objectives:

- Reduce use of mercury in products.
- Reduce/ eliminate future mercury releases through use reduction.
- Raise public awareness of the hazards of mercury and availability of mercury-free alternatives.

Background

Building on existing state and local efforts:

- Expand upon voluntary collection programs for mercury-containing products, education and outreach programs, and appropriate disposal options.
- Many states have laws for labeling and notifications, collection plans, and phase-outs of mercury-containing products. (see <http://www.mercuryinschools.uwex.edu/legis/legisbystate.htm>)
- The Interstate Mercury Education and Reduction Clearinghouse (IMERC) assists Northeast states in implementing mercury reduction laws and programs aimed at getting mercury out of consumer products, the waste stream, and the environment.

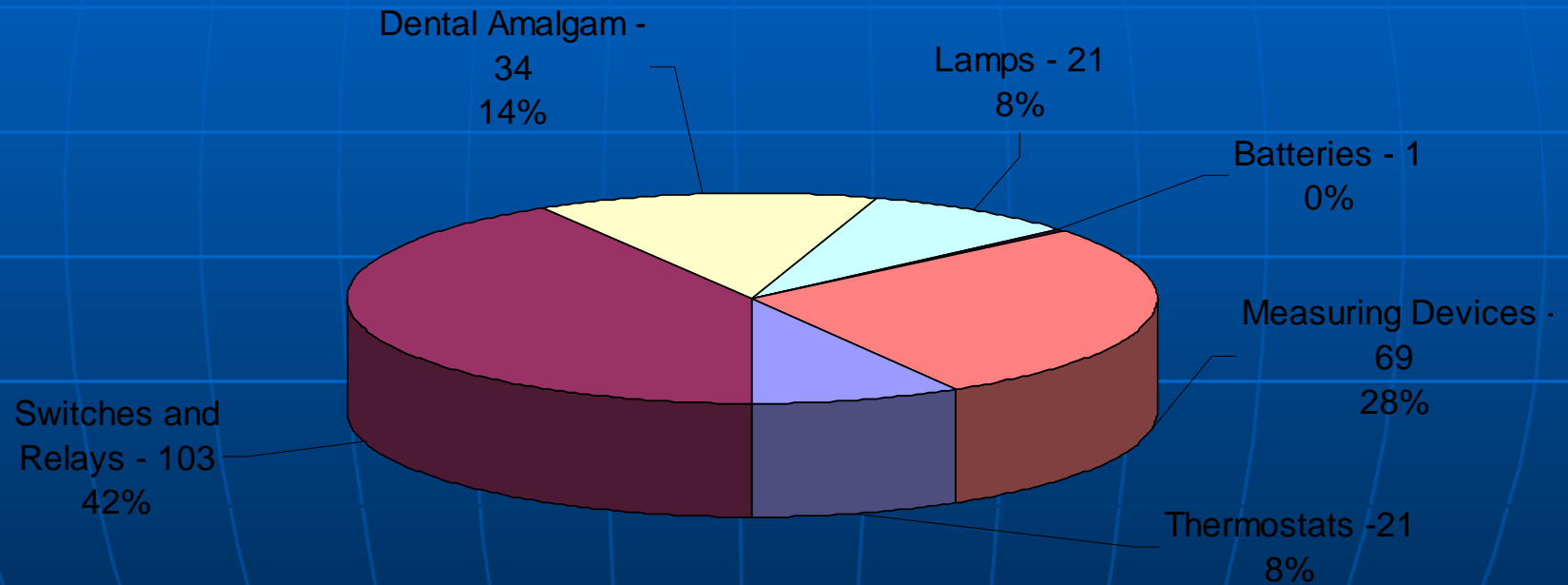
Background (continued)

Annual Mercury Consumption:

- In 2001, total estimated annual mercury consumption in products was approximately 276 tons.
- Annual mercury consumption in switches, relays, thermostats, and thermometers (and other measuring devices) was estimated to be 249 tons (approximately 90% of total annual mercury consumption in products.)

Estimated Annual Consumption of Mercury in Products

Total Annual Consumption = 276 tons



Source: EPA 2004 International Mercury Market Study and the Role and Impact of US Environmental Policy.

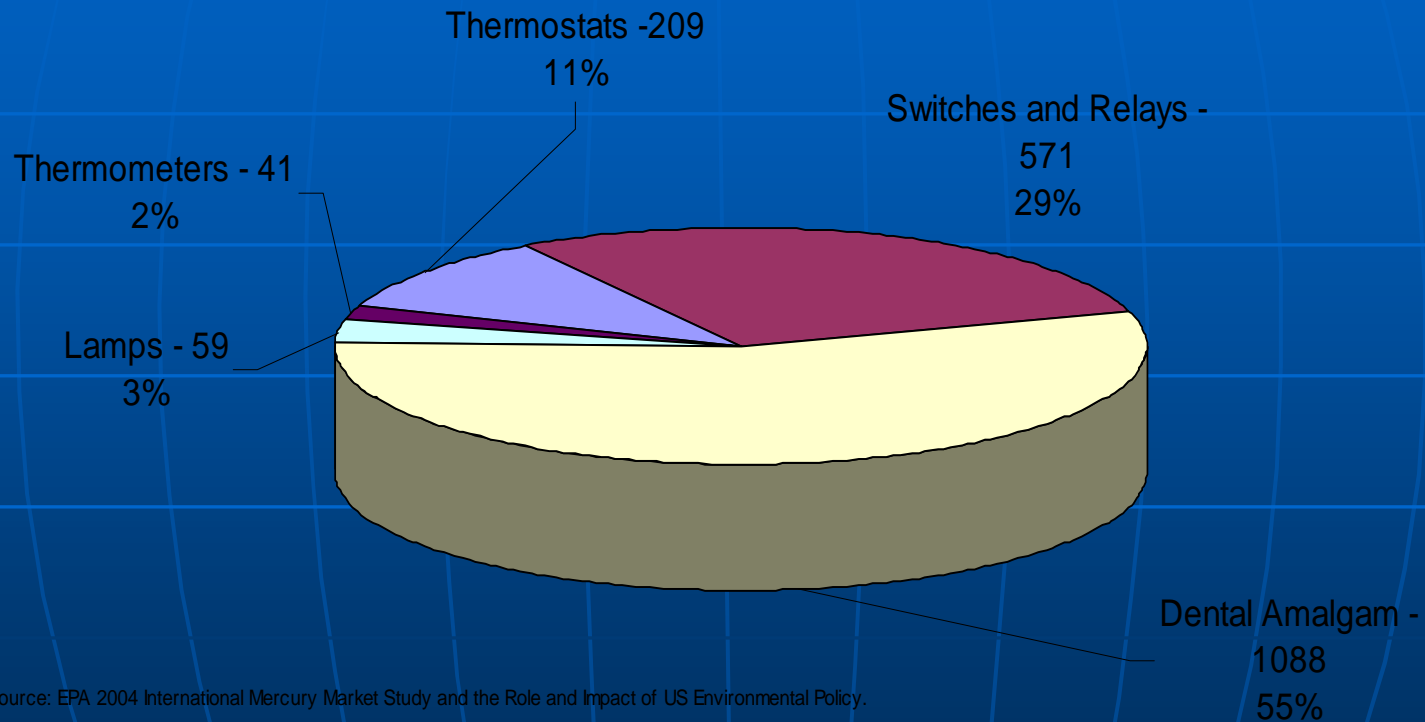
Background (continued)

Mercury Product Reservoirs:

- Approximately 2000 tons of mercury are in product reservoirs. Many mercury-containing products have long working lives; a small portion of this reservoir is expected to enter the waste stream each year.
- Assuming a 10 to 20 year period for the current reservoir to flow into the waste stream, approximately 100 to 200 tons of mercury would potentially be available for recovery annually.
- Reservoirs from Switches, Relays, Thermostats, and Thermometers (includes other instruments) are estimated to be about 821 tons (~42% of total mercury reservoirs in products.)

Estimated Mercury Reservoirs in Products

Total = 1968 tons



Source: EPA 2004 International Mercury Market Study and the Role and Impact of US Environmental Policy.

Background (continued)

Initial Approach to Targeting Product Categories and Companies:

- Examined IMERC database to identify major product categories and companies in terms of total reported volume of mercury.
 - Switches, relays, thermostats, and thermometers were the product categories with the largest reported volumes.
- Identified companies that reported the largest volumes of mercury within each product category.
 - Grouped companies by EPA Region and State.
- International companies are also impacted by overseas mercury reduction efforts, including the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS Directive.)

Draft Mercury Use Reduction Program:

EPA's draft Mercury Use Reduction Program includes four integrated elements:

1. Mercury Use Restrictions through Voluntary and Regulatory Mechanisms:
 - Mercury-Free Product Labeling
 - TSCA and other regulatory authorities
2. Mercury Use Reduction Partnerships with Industry and Non-Governmental Organizations
3. Mercury Use Reduction Collaborations with Governmental Organizations
4. Mercury-Free Purchasing Preference

Draft Mercury Use Reduction Program: (continued)

The Draft Mercury Use Reduction Program includes education and outreach to businesses and consumers on:

- the hazards of mercury;
- availability of collection programs;
- appropriate disposal of mercury-containing products; and,
- availability of mercury-free products and their benefits.

Draft Mercury Use Reduction Program: (continued)

Benefits of Mercury-Free Program would:

- Increase public awareness of the availability and quality of mercury-free products.
- Encourage and enhance the market for mercury-free products.
- Recognize manufacturers that have developed mercury-free products.
- Reduce future liability and disposal costs as result of having less mercury in products or on-site.
- Provide impetus for research and development of new mercury-free products where alternatives currently do not exist.

Draft Mercury Use Reduction Program: (continued)

1. Examination of Mercury Use Restrictions through Voluntary and Regulatory Mechanisms

Voluntary: Mercury-Free Product Labeling

- Consult with states regarding successful product labeling efforts.
- Consult with manufacturers (and/or their associations) of mercury-containing and mercury-free products for enhancing the market for mercury-free products.
- Use input from states, industry and environmental groups to establish and implement an easily recognizable national "Mercury-Free" product label.
- Option: Recognize multiple chemicals in products to establish an EPA "Green Label."

Draft Mercury Use Reduction Program: (continued)

Regulatory: TSCA and Other Regulatory Authorities

- Look to successful state mercury reduction laws and regulations as a model for national efforts.
- Compile a national database on mercury uses and substitutes as a mercury use baseline to focus mercury reduction efforts.
- Conduct analyses to identify product candidates for voluntary or regulatory programs.

Draft Mercury Use Reduction Program: (continued)

2. Mercury Use Reduction Partnerships with Industry and NGOs

Use of Existing Partnership Programs

- Work with EPA Region and State mercury and waste minimization contacts to identify companies for mercury reduction partnerships.
- Provide EPA (national) recognition to manufacturers, retailers, and users for establishing and achieving goals for reduced use of mercury, implementing mercury collection programs, and/or enhancing the market for mercury-free products.
 - Ex: partnerships with Home Depot, Builder's Square, Ace Hardware, and their suppliers, etc. – to increase market presence of mercury-free building materials and consumer products.

Draft Mercury Use Reduction Program: (continued)

Existing partnerships include:

- OSW's National Partnership for Environmental Priorities (NPEP) Program, under which successful partners work cooperatively to develop goals for enhanced mercury-free product markets, enhance manufacturer take-back programs for mercury-containing products, and reduce use of mercury in products.
- OPPT's Green Suppliers Network and Suppliers Partnership for the Environment to work with suppliers in the auto industry and other industry sectors to eliminate mercury and other toxics in the supply chain.
- OPPT's Hospitals for a Healthy Environment (H2E) Program with health care partners and facilities to eliminate mercury use and wastes in the healthcare sector.

Draft Mercury Use Reduction Program: (continued)

3. Mercury Use Reduction Collaborations with Governmental and Intergovernmental Organizations

Expand collaborations with all levels of government both domestically and internationally:

- Continue funding support for state, tribal and local programs related to mercury use reduction.
- Identify successful voluntary programs that can be scaled up to regional or national level.
- Provide support for technical assistance, education, and outreach to further reduce use of mercury and to promote safe treatment and disposal of mercury-containing products.
- Support UNEP Global Mercury Program.

Draft Mercury Use Reduction Program: (continued)

3. **Mercury Use Reduction Collaborations with Governmental and Intergovernmental Organizations (continued)**
 - Arctic Council Action Plan (ACAP) and the Arctic Monitoring and Assessment Program (AMAT) – Implement capacity building and technical cooperation programs and continue an active role in development of Russia's Mercury Action Plan.
 - OIA – Continued support of reduction goals, information sharing, capacity building, education and outreach programs (Great Lakes Binational Toxics Strategy and the New England Governors/ Eastern Canada Premiers Mercury Action Plan, and through CEC North American Regional Action Plan (NARAP) on Mercury.
 - Target bilateral and regional assistance to reduce use in countries or regions that are large consumers of mercury (e.g., China, other Asian and African countries.)
 - Fund state-wide collection programs.

Draft Mercury Use Reduction Program: (continued)

4. Mercury-Free Purchasing Preference: Federal agencies

- Mercury-Free Challenge for Federal Facilities (or “Closing the Circle” award.)
- Environmentally Preferable Purchasing (EPP) program to encourage executive agencies in purchasing mercury-free products.
 - Promote purchase and use of non-mercury switches, relays, and measuring devices through procurement specifications and actions.
 - Provide education, outreach, and technical assistance to purchasing agents.

Draft Mercury Use Reduction Program: (continued)

4. **Mercury-Free Purchasing Preference:
Private Industry and the Public**
 - Utilize the existing Green Buildings and Green Power programs to:
 - Highlight the environmental benefits of mercury-free building materials and mercury-free energy sources.
 - Provide recognition to commercial and residential developers that use mercury-free products.
 - Option: Recognize manufacturers for “doing the right thing” by reducing toxic chemicals in products.

Draft Mercury Use Reduction Program: (continued)

4. **Mercury-Free Purchasing Preference: Benefits from Utilization of EPP to enhance mercury-free product markets include:**
- Increased awareness of mercury releases and need for appropriate disposal to reduce mercury in the environment.
 - Reduced liability as less mercury-containing waste is disposed.
 - Reduced health and disposal costs.
 - Federal government has substantial purchasing power to enhance the mercury-free product market.
 - Federal government as a role for industry.

Next Steps in the Draft Mercury Use Reduction Program:

- Continue work with EPA Regional and State mercury and waste minimization contacts to identify opportunities to enhance mercury-free product markets.
- Contact manufacturers for possible mercury use reduction partnerships.
- Work with EPA Regional and State contacts and through appropriate trade associations to develop a public service announcement (PSA) on mercury in products. Identify approach (es) for delivering the PSA.
- Work with HQ Program Office, Regional, and State contacts to identify issues for developing a mercury labeling program and/or mercury-free purchasing program.