

Hearing on “Assessing State and Local Regulations to Reduce Dental Mercury Emissions”

Testimony to the US House Committee on Oversight and Government Reform Subcommittee on Domestic Policy

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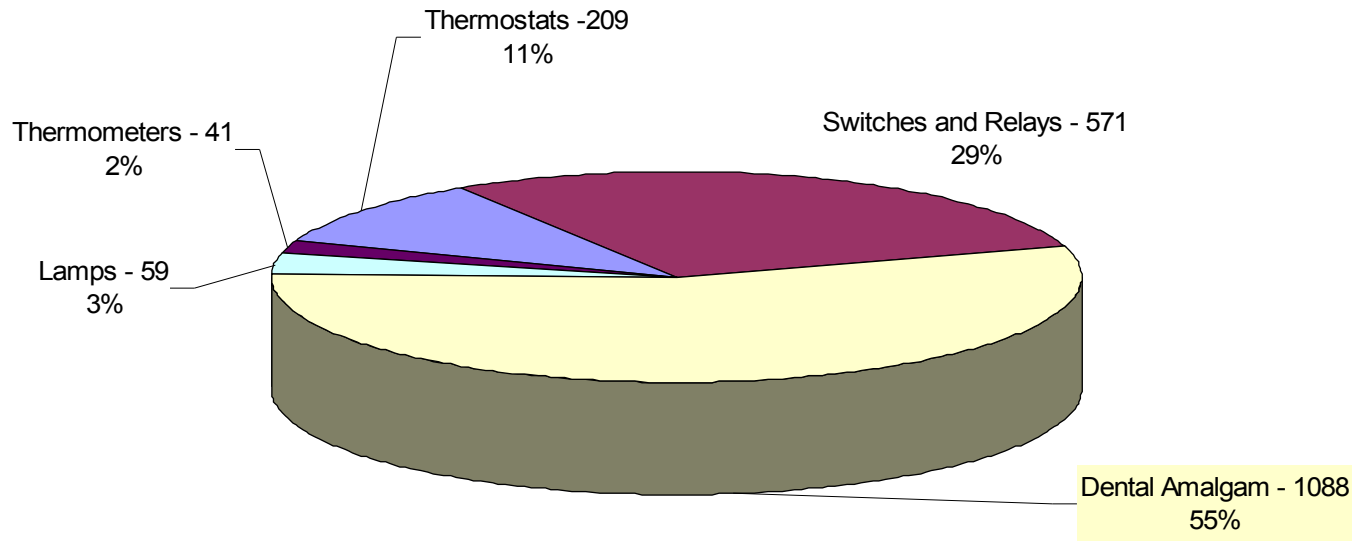
**Mercury
Policy Project**

Presentation Overview

- Background: 1,000+ Tons Mercury Tooth Fillings Polluting Environment; Mercury Use Continuing
- 9 States Require Dentists to Have Amalgam Separators to Reduce Mercury into Wastewater
- Voluntary Efforts Not Effective at Convincing Dentists to Install Separators
- ADA/State Associations Reportedly Blocking State, Local Amalgam Separator Initiatives
- Summary: Amalgam Separators Most Cost Effective at Controlling Dental Mercury Pollution

Amalgam Comprises 55% of Mercury In Use in the US, According to EPA (2004)

Total = 1968 tons



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

Dental Mercury in Wastewater

- Dental Hg identified as "by far" the greatest Hg contributor to wastewater
- Over 3 times more mercury than next largest source
- Accounts, on average, for 50% of the load

City	Mercury load from dental offices
Duluth, Minnesota	36%
Seattle, Washington	40-60%
Palo Alto, California	83%
Greater Boston Area, MA	13-76%

US Dental Mercury Use DID NOT Diminish from 2001 to 2004

- Northeast Waste Mgt Officials Association's Interstate Mercury Education and Reduction Clearinghouse just released the 2004 data on mercury uses from the amalgam manufacturers
- U.S. dentists still using 30 tons of mercury annually in 2004, just as they were in 2001
- This is significant because, contrary to what we have heard from the dental sector, their mercury pollution will continue unabated without controls

Total Amount of Mercury Sold in Fabricated & Formulated Products U.S. For Calendar Years 2001 & 2004

Products/Components	Total Mercury (pounds)		Number of Total Manufacturers Reporting	
	2001	2004	2001	2004
Switches & Relays	119,660	102,162	53	46 + 3 nr*
Dental Amalgam	61,537	60,781	5	5
Thermostats	30,971	29,943	9	8 + 1 nr
Lamps	21,438	20,118	177	185 + 8 nr
Miscellaneous	8,505	4,807	12	10 + 2 nr
Batteries	5,914	5,122	40	41
Measuring Devices:				
Sphygmomanometers	4,305	2,219	2	2
Thermometers	5,347	4,524	13	8 + 4 nr
Manometers	1,936	2,545	4	4
Barometers	353	234	1	1
Psychrometers/Other Measuring Equipment	4	3	3	3
Chemicals & Solutions	2,060	1,810	20	20 + 1 nr
Total	262,030 (131 tons)	234,268 (117 tons)	339	352

State Mandates for Amalgam Separators

- Nine states have opted for a mandatory requirement for amalgam separators, either through law or regulation.
- Why? Voluntary programs aren't effective at convincing dentists to install separators
- For example, data from the Boston area shows a 48% reduction in mercury concentration in sludge as amalgam separator use increased from less than 20% to over 80% due to mandates.
- You will hear many other examples like this today

ADA/State Dental Associations Reportedly Blocking Amalgam Separator Initiatives

- ADA reportedly “trains trainers” to support BMPs, oppose amalgam separator initiatives
- ADA/state dental associations appear to have blocked amalgam separator initiatives in California, Wyoming, Michigan, Ohio, Montana & likely elsewhere
- Also slowing down separator installations in other states, including Oregon
- Blocking local separator initiatives also

Typical clinic cost of removing amalgam waste with a separator

[all costs in “2005 dollars”]

Combined separator equipment & installation cost	\$1,096.67
Lifetime of separator equipment (yrs.)	10
Amortized separator equipment & installation cost per year	\$109.67
Operating, maintenance, recycling cost per year	\$528
Total equipment and operating cost per year	\$638
General practice (GP) dental facilities	183480
Total separator costs for all GP facilities per year	\$116,999,141
Number of amalgam fillings placed per year	60000000
Separator cost per filling placed for all GP facilities	\$1.95

Summary

- The use of amalgam separators is highly cost effective in preventing releases of mercury
- Cost to remove mercury at a wastewater plant is \$21 million per pound, or \$46,000 per gram (AMSA 2002b) compared w/amalgam separator cost of \$1.95 for average mercury filling removal
- The record clearly shows that voluntary programs are not effective at convincing dentists to install amalgam separators.
- State, local separator initiatives slowed by ADA
- To prevent future pollution and costs, separators should be required and amalgam phased out