

**The Environmental Council of the States (ECOS) Testimony before the  
House Oversight and Government Reform Committee  
Domestic Policy Subcommittee**

***On Assessing EPA's Efforts to Measure and Reduce  
Mercury Pollution from Dentist Offices***

*Presented by*

***R. Steven Brown, Executive Director  
Environmental Council of the States  
444 North Capitol St, NW, Suite 445  
Washington, DC 20001***

***202-624-3667***

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## **Introduction**

Thank you, Mr. Chairman, for providing the Environmental Council of the States (ECOS)<sup>1</sup> the opportunity to present testimony on the issue of dental amalgam mercury. My name is Steven Brown, and I am Executive Director of our national association, ECOS. Today I am speaking on behalf of the environmental agencies in our 50 member states and territories.

## **Background**

The Environmental Council of the States is the national non-partisan, non-profit association of state and territorial environmental commissioners. Each state and territory has some agency, known by different names in different states that corresponds to the United States Environmental Protection Agency (EPA). Our members are the officials who manage and direct the environmental agencies in the states and territories. They are the state leaders responsible for making certain our nation's air, water and natural resources are clean, safe and protected. States are responsible for managing federally delegated environmental programs; instituting environmental enforcement actions; collecting monitoring data; and managing state lands and resources; and other environmental matters in which states have become national leaders.

## **ECOS Focus on Reducing Mercury from Dental Amalgam**

Your subcommittee has expressed an interest in how mercury pollution from dental offices may be reduced. We share this desire and applaud your interest in it. This testimony will outline the history of recent efforts, and our recommendations for future action.

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<sup>1</sup> More information about ECOS is at: <http://www.ecos.org/>

A priority of ECOS is to investigate and pursue reductions in mercury pollution. Mercury is a known neurotoxin that is particularly dangerous to children and the unborn fetus. In 2001, ECOS teamed up with leaders from five (5) other state environmental associations to form the Quicksilver Caucus (QSC)<sup>2</sup>. Members include the Association of State Drinking Water Administrators (ASDWA), the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA), the Association of State and Territorial Solid Waste Management Officials (ASTSWMO), ECOS, the National Association of Clean Air Agencies (NACAA) and the National Pollution Prevention Roundtable (NPPR). Together, we are working with EPA to find and implement new ways of reducing mercury pollution. QSC is supported in part with a grant from EPA. QSC performs research and provides recommendations for ECOS consideration related to mercury issues.

### **State and Local Amalgam Mercury Programs**

In April 2008, QSC released the *Dental Mercury Amalgam Waste Management White Paper* (white paper)<sup>3</sup>. The white paper examined issues related to the installation and use of amalgam separators, the common features of dental amalgam programs, lessons learned from existing local and state programs, and recommendations for future action.

In the white paper, QSC writes:

When considering whether separator installation should be voluntary or mandatory, program managers should consider information published in the Fall 2007 edition of the *ADA Professional Product Review* where it was reported that a 'survey of [ADA Clinical Evaluator Panel] members shows that relatively few panel members own an amalgam separator or plan to purchase one.'

ECOS is aware that at least eleven (11) states and numerous local authorities have established mandatory amalgam management programs that require dentists to install amalgam separators. In May 2008, QSC released *Case Studies of Five Dental Mercury Amalgam Separator Programs*<sup>4</sup>. The case studies profiled five (5) dental mercury amalgam programs run by the following state and local authorities:

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<sup>2</sup> More information about the Quicksilver Caucus is at:  
[http://www.ecos.org/section/committees/cross\\_media/quick\\_silver](http://www.ecos.org/section/committees/cross_media/quick_silver)

<sup>3</sup> Dental Mercury Amalgam Waste Management White Paper. Environmental Council of the States/ Quicksilver Caucus. April 2008. ECOS 08.002. Available at:  
[http://www.ecos.org/files/3148\\_image\\_Corrected\\_Final\\_Dental\\_Amalgam\\_White\\_Paper\\_April\\_2008.pdf](http://www.ecos.org/files/3148_image_Corrected_Final_Dental_Amalgam_White_Paper_April_2008.pdf)

<sup>4</sup> Case Studies of Five Dental Amalgam Separator Programs. Environmental Council of the States/ Quicksilver Caucus. May 2008. ECOS 08.003. Available at:  
[http://www.ecos.org/files/3193\\_file\\_case\\_studies\\_dental\\_amalgam\\_paper\\_052808.pdf](http://www.ecos.org/files/3193_file_case_studies_dental_amalgam_paper_052808.pdf)

- Maine State Department of Environmental Protection
- Massachusetts State Department of Environmental Protection
- Metropolitan Council Environmental Services (MCES) (Minneapolis, Minnesota region)
- New York State Department of Environmental Conservation
- Washington State Department of Ecology (with additional information provided about King County and other local programs within the State of Washington)

In the white paper, QSC compared the effectiveness of voluntary dental amalgam mercury management programs to those with mandatory components. All of the programs examined initially began as voluntary initiatives with Memoranda of Understanding (MOUs) with state dental associations, or as a result of regional initiatives that included recommendations for the development of mandatory programs.

In its reports, QSC found that in many jurisdictions, dental amalgam separator installation rates were low unless there was a mandatory component. For example, in August 2003, the Washington State Department of Ecology (Ecology) initially negotiated an MOU with the Washington State Dental Association to give dentists a two-year grace period to install amalgam separators and implement other best management practices. Under the voluntary program, only 40% of dentists in Washington installed separators by April 2005. This prompted Ecology not to extend the MOU and to require separator installation under existing state hazardous waste regulations by September 2005. By April 2006, Ecology documented a 95% separator installation rate at dental offices.

Similarly, in Massachusetts, although a 2001 MOU between the Massachusetts Department of Environmental Protection and the Massachusetts Dental Society helped to raise awareness about amalgam separators, their use by dentists only increased modestly until a two-phase mandatory program evolved with incentives for early adopters. Regulations requiring installation of separators were adopted in April 2006. In 2008, Massachusetts estimated that greater than 95% of dental offices generating amalgam-containing wastewater were using compliant amalgam separators.

In the Minneapolis region, MCES saw comparable low separator installation rates via a 2003 voluntary program until the authority told dentists they would be required to obtain a discharge permit, pay permit fees, conduct sampling, and submit reports to MCES if they did not install a separator. After dentists were told that, separator installation rates in the MCES jurisdiction increased to 99% by 2008. MCES reports that the mercury levels in treatment works influent have been reduced by approximately one half since the program began.

## Memorandum of Understanding on Reducing Dental Amalgam Discharges

On Dec. 16, 2008, the Quicksilver Caucus sent EPA a letter<sup>5</sup> urging the agency to work with states to develop a national strategy for managing mercury from dental amalgam. In particular, the letter urged that:

[we] would like to build upon the current interest and momentum on these issues and commence discussions with a broad base of stakeholders to develop a nationwide program with a goal of substantially reducing releases of mercury to the environment from dental amalgam mercury. The stakeholders would include but certainly would not be limited to the American Dental Association, USEPA, states, publicly operated treatment works (POTWs) and dental supply manufacturers.

On December 29, 2008, EPA's outgoing Assistant Administrator for the Office of Water, Benjamin Grumbles, signed a memorandum of understanding (MOU)<sup>6</sup> with the American Dental Association (ADA) and the National Association of Clean Water Agencies (NACWA). Neither ECOS nor the Quicksilver Caucus were involved with development of the MOU. ECOS and Quicksilver Caucus members were not aware that EPA was working to develop such an agreement. States were not asked to be a party to the MOU.

On January 15, 2009, Mr. Grumbles sent Quicksilver Caucus a response<sup>7</sup> to its December 16 letter. Mr. Grumble's response mentions the MOU as EPA's chosen path forward and invites the QSC to work with EPA to encourage use of best management practices.

On January 22, 2009, QSC members and EPA's Office of Water held a conference call to discuss the issue of amalgam mercury. During the discussion, QSC members expressed that states are not pleased with their role, or lack thereof, in implementing the MOU. QSC again requested that states be included as parties to the MOU because states are co-regulators with EPA for implementing the Clean Water Act and other related federal environmental statutes. EPA replied that they would take QSC's request to the other MOU parties and get back to QSC with a reply.

In a subsequent meeting with QSC, EPA eventually agreed to keep QSC informed of developments regarding implementation of the MOU, and to consult with the states prior to any major actions being undertaken. However, EPA reserved the role of decision-making regarding MOU next steps to EPA, ADA and NACWA.

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<sup>5</sup> Letter from Quicksilver Caucus to U.S. EPA. Dec. 16, 2008. Available at: [http://www.ecos.org/files/3406\\_file\\_QSC\\_Letter\\_to\\_US\\_EPA\\_on\\_Dental\\_Amalgam\\_12\\_16\\_08.pdf](http://www.ecos.org/files/3406_file_QSC_Letter_to_US_EPA_on_Dental_Amalgam_12_16_08.pdf)

<sup>6</sup> Memorandum of Understanding on Reducing Dental Amalgam Discharges. Dec. 29, 2008. Available at: [http://www.ecos.org/files/3425\\_file\\_USEPA\\_ADA\\_NACWA\\_MOU\\_on\\_Amalgam\\_Mercury.pdf](http://www.ecos.org/files/3425_file_USEPA_ADA_NACWA_MOU_on_Amalgam_Mercury.pdf)

<sup>7</sup> Letter from U.S. EPA to Quicksilver Caucus. Jan. 15, 2009. Available at: [http://www.ecos.org/files/3424\\_file\\_US\\_EPA\\_Reply\\_to\\_QSC\\_on\\_Dental\\_Amalgam\\_1\\_15\\_09.pdf](http://www.ecos.org/files/3424_file_US_EPA_Reply_to_QSC_on_Dental_Amalgam_1_15_09.pdf)

On January 15, 2010, Rep. Dennis Kucinich and Rep. Diane Watson sent a request for information<sup>8</sup> to EPA regarding its amalgam mercury reduction efforts. In its response<sup>9</sup> to Rep. Kucinich on April 5, 2010, EPA stated:

We also expanded our coordination of stakeholders to include the Quicksilver Caucus, a coalition of state environmental associations who are concerned with mercury discharges, and also with the Mercury Policy Project, which is an NGO [non-governmental organization] focused on reducing mercury from all sources. As all the parties continue to coordinate next steps, we look forward to narrowing the performance goals and agreeing on best approaches to encourage installation of separators.

QSC feels that the above statement makes it appear that states are active participants in deciding upon next steps under the MOU. However, states' involvement in the MOU has been limited to conference calls to discuss the status of the MOU. EPA periodically shares information with QSC regarding discussions between the MOU parties, and EPA periodically solicits the states' opinions on aspects of the MOU, but states have not been allowed to participate in the decision-making process. EPA has not shared decision-making responsibility for setting of MOU goals and implementation plans with the states. Also, EPA and ADA have been reluctant to share information with states regarding ADA's outreach to its membership for encouraging pollution reduction.

EPA's April 5, 2010 letter to Rep. Kucinich says that EPA "expanded... coordination of stakeholders to include... the Mercury Policy Project... an NGO focused on reducing mercury." Michael Bender, Executive Director of the Mercury Policy Project, has told QSC that his organization's repeated attempts to gain a stakeholder role in the MOU have been repeatedly rejected by EPA.

In EPA's response to Rep. Kucinich's letter, EPA states that:

Early in 2009, the MOU parties agreed on a method for estimating the baseline and the data to be collected and analyzed. In June 2009, EPA received the baseline report, which included highlights of ADA's survey results on installation rates of separators across the country.

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<sup>8</sup> Letter from U.S. House of Representatives Committee on Oversight and Government Reform to U.S. EPA. Jan. 15, 2010. Available here: [http://www.ecos.org/files/4092\\_file\\_01\\_15\\_2010\\_letter\\_from\\_Kucinich\\_to\\_Jackson\\_about\\_dental\\_amalgam.pdf](http://www.ecos.org/files/4092_file_01_15_2010_letter_from_Kucinich_to_Jackson_about_dental_amalgam.pdf)

<sup>9</sup> Letter from U.S. EPA Office of Congressional and Intergovernmental Relations to Dennis J. Kucinich, Chair, U.S. House of Representatives Committee on Oversight and Government Reform Subcommittee on Domestic Policy. April 5, 2010. [http://www.ecos.org/files/4093\\_file\\_EPA\\_letter\\_to\\_Dom\\_Pol\\_Chairman\\_Kucinich\\_4\\_5\\_10.pdf](http://www.ecos.org/files/4093_file_EPA_letter_to_Dom_Pol_Chairman_Kucinich_4_5_10.pdf)

QSC has asked EPA to inform QSC whether and when a baseline is set. EPA has told QSC that no baseline has been set yet. Under the MOU, a baseline was supposed to be set by July 2009, and reduction goals were to be set by January 2010. Last month, EPA officials told QSC members that goals have still not yet been agreed upon by the MOU parties. EPA has told QSC that ADA has been reluctant to set goals.

Several months ago, EPA asked separator manufacturers whether they could supply sales data. Most manufacturers said they could provide such data. Subsequently, EPA has asked QSC what data it would like to see reported from the manufacturers. QSC told EPA that it would like to see sales data according to the state in which purchaser is located/ place of installation; county; township/ city; separator brand and model name; month and year purchased; removal efficiency rating; recommended frequency of maintenance and replacement of separator cartridges; the last time service was performed; and whether the facility is connected to a public sewerage system. Collection of such data can help inform the setting of baselines and goals, and for successfully implementing the MOU.

### **ECOS Findings and Recommendations**

ECOS and QSC do not necessarily disapprove of the voluntary effort represented by the MOU. Voluntary efforts can sometimes be effective and can provide momentum and better inform further mandatory programs. However, the MOU parties have not yet agreed upon reduction goals, as the MOU required by January 2010. EPA officials have told QSC members that ADA has been reluctant to set goals, which has stalled the goal-setting and implementation process.

On March 24, 2010 – troubled by the lack of progress with EPA’s MOU – the Environmental Council of the States passed a new policy resolution<sup>10</sup>. In the resolution, ECOS says:

WHEREAS, mercury from dental amalgam can be the single largest source of mercury for publicly owned treatment works and is a water quality discharge concern and a source of air pollution when sludge is incinerated or land applied... NOW, THEREFORE, BE IT RESOLVED THAT... ECOS urges U.S. EPA to include dental facilities under the Health Care Sector for rulemaking in its Effluent Guidelines Program Plan and require adoption of best management practices that reduce mercury discharges to protect the environment (emphasis added).

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<sup>10</sup> Resolution # 07-1 “Implementing a National Vision for Mercury.” Environmental Council of the States. Revised March 24, 2010. Available at: [http://www.ecos.org/files/4026\\_file\\_Resolution\\_07\\_1\\_2010\\_version.doc](http://www.ecos.org/files/4026_file_Resolution_07_1_2010_version.doc)

On March 31, 2010, the Quicksilver Caucus sent a letter<sup>11</sup> to EPA commenting on its proposed effluent guidelines. In the letter, QSC stated that:

QSC members believe that US EPA should pursue effluent guidelines rulemaking for dental facilities that focus on BMP [best management practice] use and amalgam separators in the sector. We do not agree with the US EPA decision in 2008, when it did not identify the dental sector for effluent guidelines rulemaking... In a review of various dental mercury amalgam programs around the US, QSC findings indicate that voluntary efforts to reduce hazards associated with dental mercury amalgam have not resulted in reductions by a majority of dental offices... POTWs in the U.S. have determined that dental clinics contribute approximately half of the mercury loadings to wastewater treatment plants. Therefore, dental clinics are a significant source... QSC strongly recommends that US EPA pursue effluent guidelines rulemaking for dental facilities. Any federal action taken needs to be sure to protect the ability of the states to go beyond federal regulations to continue to demonstrate what is possible and develop approaches to achieve continual improvement.

“BMPs” could be interpreted to mean many different things, but QSC is very explicit about what BMPs are recommended, and these include installation and use of amalgam separators. It is worth noting that ADA itself has recommended installation and use of amalgam separators in its October 2007 Best Management Practices<sup>12</sup>.

## Key Conclusions

QSC members have expressed support for a two-pronged approach to resolving the issue:

First, EPA should set and implement voluntary reduction goals via the MOU. EPA should also extend the role of MOU decision-making stakeholders to include the states (this will involve the states in the decision-making process, rather than relegate the states to merely receiving periodic reports regarding MOU progress). The QSC recommends goals whereby at least 20% of dentists in areas where mandatory programs do not already exist will install and use separators within one year of goals being set. By year two, 25% of such dentists will install and use separators; by year three, 50%; by year four, 75%, and by year five, 100%. An even simpler, and more ideal approach, would involve setting goals whereby 100% of all dentists (regardless of whether they are within an area where a mandatory program already exists) install and use separators within five years.

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<sup>11</sup> Letter from Quicksilver Caucus to U.S. EPA. March 31, 2010. Available at: [http://ecos.org/files/4062\\_file\\_QSC\\_Letter\\_to\\_EPA\\_on\\_Effluent\\_Guidelines\\_FINAL\\_Sent.pdf](http://ecos.org/files/4062_file_QSC_Letter_to_EPA_on_Effluent_Guidelines_FINAL_Sent.pdf)

<sup>12</sup> Best Management Practices for Amalgam Waste. American Dental Association. Oct. 2007. Accessed May 20, 2010. Available at: [http://www.ada.org/sections/publicResources/pdfs/topics\\_amalgamwaste.pdf](http://www.ada.org/sections/publicResources/pdfs/topics_amalgamwaste.pdf)

The second key approach is that EPA should require dental facilities nationwide to implement BMPs (including separator installation and use) through an effluent guidelines rulemaking this year. Implementation of the rulemaking would take at least a few years. In the meantime, progress made via the MOU would help inform the success of the mandatory program.

The second approach (the mandatory rulemaking) is the more important of the two methods, as evidenced by explicit support from ECOS resolutions for this action.