

(logo) Association of
Metropolitan
Sewerage Agencies

Mr. Jorge Ocaña
Commission for Environmental Cooperation
393 St-Jacques Ouest, Bureau 200
Montréal, Québec, H2Y 1N9 Canada

Subject: Comments on Draft Phase II North American Regional Action Plan on Mercury

Dear Mr. Ocaña:

Thank you for the opportunity to comment on the Commission for Environmental Cooperation's (CEC's) Phase II Draft North American Regional Action Plan on Mercury. The Association of Metropolitan Sewerage Agencies (AMSA) represents the interests of 211 of the United States' publicly-owned wastewater treatment agencies, which collectively serve the majority of the sewered population in the United States, and treat and reclaim more than 18 billion gallons of wastewater each day.¹ Over the past 28 years, AMSA has maintained a close working relationship with the U.S. Congress and the Environmental Protection Agency (EPA) in the development of environmental legislation and policy making. In addition to their primary responsibility for treating the Nation's domestic and industrial wastewater, AMSA member agencies play a major part in their local communities, often leading watershed management efforts, promoting industrial/household pollution prevention and water conservation, and developing urban stormwater management programs.

In reviewing the Draft Action Plan, we are aware that its primary goal is to undertake actions aimed at reducing mercury releases from human activities to approach naturally occurring levels in North America. While this certainly is a laudable goal, we believe it needs to be tempered by both technical and economic feasibility. AMSA is a strong supporter of pollution prevention and minimization, which are cornerstones of your Draft Action Plan. However, we also believe that there is a point where you can only effectively achieve so much in terms of reducing mercury released to the environment, and that reaching natural background levels may not be attainable. As such, recommended action plans and strategies should take this condition into account. Finally, we also strongly believe that actions plans should target the most significant sources of mercury in order to truly make a impact on reducing mercury, rather than having broad-based plans without prioritization. In our opinion, the greatest "bang-for-your-buck" in reducing mercury can be achieved by targeting fossil fuel combustion, mercury in consumer products, and

¹ AMSA's national office is located at 1000 Connecticut Avenue, NW, Suite 410, Washington, DC 20036-5302, Phone: 202/833-AMSA, Fax: 202/833-4657

preventing the sale of 11 million tons of surplus mercury from the U.S. Department of Defense stockpiles. Also, we believe that more effort should be directed at reducing tailpipe emissions of mercury. Vehicle emissions become a significant source of mercury in parts of the U.S. where there is little incineration of coal and municipal solid waste. For example, Santa Clara County, California has estimated that 80% of the urban storm water mercury is coming from tailpipe emissions.

Our specific comments on the Draft Action Plan are presented below.

Action Item 3c Wastewater Treatment

The Draft Action Plan make a number of recommendations regarding developing pollution-prevention policies and programs, initiating protocols for identifying, analyzing and reducing sources of mercury to wastewater treatment facilities; and encouraging the development of appropriate management techniques to reduce the release of mercury from sludges or effluents from wastewater treatment facilities. We support these recommendations, but offer one suggestion. Because there is commonality in the problems facing POTWs with regard to mercury, AMSA believes that a national strategy should be developed so that every individual POTW does not have to come up with an individual compliance solution. To further advocate the development of a national policy, AMSA established the Mercury Workgroup which is involved in a number of activities that are directly related to the actions listed in the Draft Plan.

Since August 1998, AMSA has collected mercury information from 24 facilities in six states that used sensitive sampling and analytical techniques (EPA Method 1631) to characterize mercury concentrations in wastewater effluents. These facilities handle wastewater flows ranging from 0.65 million gallons per day (MGD) to 225 MGD with a median of 23 MGD, and serve populations ranging from 18,200 to 1.74 million with a median population of 384,000. Final effluent mercury values ranged from a minimum of 0.7 ppt to a maximum of 69.9 ppt, with average and median concentrations of 7.25 ppt and 5.0 ppt respectively.

These results were very similar to data collected by the Maine Department of Environmental Protection in 1998 as part of a comprehensive monitoring program involving 75 POTWs.² However, both of these data sets differ significantly from a small sampling effort conducted by the EPA in 1994 that collected grab samples from nine POTWs in the Great Lakes states.³ As part of that project, mercury was detected in only five of the nine samples at levels ranging from 3 to 36 ppt. We know from our project and the Maine sampling project that there can be considerable variability in mercury results, and do not believe that the four non-detect samples in EPA's sample set are representative of mercury levels around the country. To address this issue, we are planning on conducting follow-up sampling to further characterize these four facilities.

We have also learned through our data collection effort that all POTWs will have a difficult time meeting low ppt effluent limits, and would require significant reductions in mercury concentrations. Based on AMSA's data set, these reductions would range from 57% to 98%.

² Based on 75 communities in Maine. From *Mercury in Wastewater: Discharges to the Waters of the State 1999*. Maine DEP, February 1, 1999.

³ U.S. Environmental Protection Agency, An Analytical Survey of Nine POTWs from the Great Lakes Basin (Draft Report, December 15, 1994), p. 1.

While we believe that opportunities exist for source reduction and pollution prevention, these typically occur when there are industrial sources and associated high loading rates. However, when you get to these kinds of lower levels, most of the mercury is coming from non-industrial sources making it tougher, more costly and in many cases infeasible to achieve these reductions solely through pollution prevention.

To address this issue, AMSA is now in the process of completing a study looking at mercury levels in residential wastewater. Preliminary results indicate a mean mercury concentration for residential areas of 178 ppt and a median concentration of 110 ppt. Analyses are also being performed for a variety of common household products using Method 1631 to ascertain mercury levels. These products include: soaps, anti-bacterials, toilet paper, food products (e.g., cherry Kool-Aid and other soft drinks). Based on the residential wastewater data and consumer products data, we believe that domestic wastes contribute appreciable concentrations of mercury to POTW influent waste streams and must be considered when addressing mercury control strategies. Background mercury concentrations averaging above 100 ppt can be expected in POTW influents, even if complete elimination of industrial point source discharges is accomplished.

In addition, published data⁴ indicate that dental amalgam mercury excreted through feces and urine could also contribute significantly to the mercury levels observed in domestic wastewater. More consideration, including quantification of the relative importance of such sources, is needed to understand the extent to which mercury reduction efforts at POTWs can potentially succeed.

Finally, there is still uncertainty concerning mercury contributions from natural food products, such as meat, plants and food additives. Many plant products contain mercury as a result of atmospheric deposition as well as the natural concentrations of mercury found in soils. As a result, elimination of mercury from many manmade products currently entering waste streams will not preclude the contribution of mercury to collection systems from alternate natural sources.

AMSA is also addressing the issue of pollution prevention effectiveness and feasibility as part of an EPA sponsored grant that will begin this fall. The goals of the project are to demonstrate and evaluate the environmental benefits that result from implementation of mercury source control programs; to determine the feasibility of reducing POTW effluent levels to new regulatory compliance standards (<1 to 3 ppt) through the implementation of mercury source control programs; and to assist Federal, state, and local officials in determining appropriate cost effective mechanisms to control mercury discharges from POTWs.

Action Item 2 Mercury Management in Processes, Operations and Products

The Draft Action Plan calls for the promotion of policies and programs to reduce and, where warranted, eliminate mercury in processes, operations and products where there is a likelihood of releases throughout their life cycle. We believe that a stronger approach should be taken; namely, pushing for legislation that limits the unnecessary use of mercury in products, such as thermometers, switches, pharmaceutical products, sneakers, toys and other consumer goods. This must be done to remove mercury products from the waste stream, and should be conducted on an international-basis. As it stands now, individual POTWs, local agencies or states must

⁴ Water, Air, and Soil Pollution 80: 59-67, 1995.

individually push for bans or controls, which is an ineffective means of eliminating mercury in consumer products.

Action Item 3e Mercury Retirement Program

The Draft Action Plan notes that there is a need to consider options for removal and permanent disposal of mercury from contributing sources and stockpiles so that it is no longer available to the global pool by encouraging the development and use of effective mercury waste-stabilization and disposal techniques and methods; promoting emissions offsets; and directing the North American Working Group on the Sound Management of Chemicals to evaluate and assess the technical and socio-economic feasibility of consolidating and permanently retiring quantities of mercury removed from commerce.. We strongly support the policy of retiring mercury versus recycling it. However, we are concerned that the Draft Action Plan's recommendation is weakened by two other Action Items: Action Item 3d (Mercury Waste Collection and Handling) and Action Item 5c (Recycling Directory). Under Action Item 3d, sectors are encouraged to develop product stewardship programs for the collection, recovery, **recycling** and retirement of mercury in mercury-containing products; assist their various regulatory jurisdictions with the establishment of mercury collection depots and incentives to encourage the collection, recovery and **recycling** or retirement of holdings of mercury; and encourage mercury education and collection programs including proper cleaning, handling, replacing or storing procedures for all mercury-containing devices and equipment. We are concerned that by including recycling as an option, it will be pursued in favor of retirement, which is the preferred action, and recommend that the Action Item be revised. Also, Action Item 5c, calls for a short-term action that informs enterprises disposing of or purchasing mercury of those facilities that are capable of **recycling** mercury. Again, we recommend that this action focus on management activities that provide for retirement of mercury rather than recycling, and suggest that the Action Item be revised.

Thank you for the opportunity to comment on the Draft Action Plan. If you have any questions or would like more information about AMSA's Mercury Workgroup activities/data, please feel free to contact me at 562/699-7411, extension 2800.

Sincerely,

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