QUICKSILVER CAUCUS

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);
The Environmental Council of the States (ECOS);
The National Association of Clean Air Agencies (NACAA);
The National Pollution Prevention Roundtable (NPPR)

Mr. Daniel A. Reifsnyder
Deputy Assistant Secretary of State
for Environment and Sustainable Development
OES/E – Room 3880
U.S. Department of State
Washington, DC 20520

[Via E-mail]

January 11, 2011

Dear Mr. Reifsnyder:

On behalf of the States and organizations belonging to the Quicksilver Caucus (QSC), we would like to thank you for the opportunity to provide input on mercury-related issues as the United States prepares for the second United Nations Environment Programme (UNEP) Intergovernmental Negotiating Committee (INC) meeting beginning January 24, 2011. We are very optimistic that over the next few years, members of the INC will establish provisions in a binding global agreement on mercury that will eventually result in substantial reductions in mercury pollution and use world-wide.

The QSC is a coalition of state environmental association leaders working to reduce mercury pollution in all environmental media as well as unnecessary uses of mercury, which can result in environmental releases and direct human exposures. QSC members work collaboratively to develop and implement approaches to reduce human-derived sources of mercury in the environment and to share information on sources, pollution controls, pollution prevention and mercury monitoring and research. QSC members include the Environmental Council of the States (ECOS), the Association of State and Territorial Solid Waste Management Officials (ASTSWMO), the National Association of Clean Air Agencies (NACAA) the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA), the Association of State Drinking Water Administrators (ASDWA), and the National Pollution Prevention Roundtable (NPPR).

States have a strong interest in reducing mercury pollution and have taken numerous actions to address this issue. State interest and efforts to control mercury pollution stem in part from the fact that all states in the United States (US) have fish consumption advisories recommending that their citizens avoid or limit the consumption of many fish species due to contamination by mercury. Children are most at risk from exposure to this neurotoxin as the developing brain of the fetus and the newborn are particularly sensitive to damage from mercury. Exposure

monitoring data demonstrates that several percent of women of child-bearing age in the US are exposed to mercury, primarily through fish consumption, in excess of recommended safe levels, resulting in the exposure of several hundred thousand newborns each year to unsafe levels of this neurotoxin. Mercury is also toxic to the human immune system, cardiovascular system and kidneys and may increase heart attack risk in adults. Adverse effects on wildlife are also observed.

QSC members and the US EPA have a long history of working collaboratively to establish and implement initiatives to reduce mercury releases in the US. These efforts have been very successful and we have made significant progress in reducing mercury releases. Sources of mercury pollution in many states have been reduced by more than 70% and some cases close to 90%, since the mid 1990s. However, given the long-range atmospheric transport of mercury emissions, global mercury pollution sources contribute very significantly to mercury contamination of US lakes, ponds, streams and rivers and will need to be addressed. Assessments of mercury pollution levels and sources by the New England States (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont), Minnesota, New Jersey, and New York demonstrate that mercury pollution attributable to anthropogenic sources will need to be reduced by greater than 90% to reduce freshwater fish mercury concentrations to safe levels in these states (a brief summary of these studies is appended). Much of the mercury impacting these states was attributed to global sources. Because of these findings, and the fact that children are most at risk, the QSC supports strong and effective actions to reduce global sources of mercury pollution and unnecessary uses of mercury. Towards this end we would like to offer the following comments for your consideration in advance of the second INC.

Reduction Goals. Since first invited to submit comments in 2003, the QSC has called for establishing international reduction targets for mercury. We now know, as noted above, that very substantial reductions in mercury pollution sources will ultimately be needed to protect our environment and our children.

Due to the substantial reductions required, the QSC continues to believe that the final agreement should include strong long-term reduction goals sufficient to ultimately resolve the global problem we all face and achieve safe levels of mercury in the environment. Because of the daunting nature of the task, QSC also urges the establishment of feasible interim benchmarks, or reduction targets, to ensure progress is made. These benchmarks should target specific source categories responsible for environmental releases of mercury as well as unnecessary uses of mercury in products and processes; establish aggressive but achievable reductions; include explicit but reasonable timeframes; and establish reporting frameworks and mechanisms to track and evaluate progress.

QSC believes that different benchmarks, interim goals or timelines may be appropriate for countries in various stages of economic development but also believes that the final agreement should commit all countries to collectively achieve 70- 90% reductions in their emissions so as to mirror the efforts of U.S. states and assist them in their attempts to address U.S. mercury deposition from international sources. Developed countries should have more aggressive interim goals, to be achieved sooner. In addition, we recommend that guidance be developed to help establish reasonable consistency regarding minimum reductions and timeframes within specific categories.

Mercury-Added Product Bans. The QSC believes that non-essential uses of mercury in processes and products should be phased-out globally as quickly as possible. Mercury

formulated products or compounds such as laboratory reagents and chemical standards should not be overlooked, in particular because their use often results in a direct release to air or water.

This QSC position is based on state experiences addressing mercury-added products and uses. Considerable data exists that demonstrates that mercury is not an essential component of most products and processes and that viable, environmentally preferable and cost effective non-mercury options often exist. Globally, to achieve the goals of reducing environmental releases and the potential for direct exposures, a move away from unnecessary uses should occur as quickly as is practical. To reduce releases and exposures, at least twenty-five states and more than a dozen local jurisdictions have aggregately enacted more than 90 laws that ban the sale and/or use of mercury and mercury containing products. (http://www.chemicalspolicy.org/chemicalspolicy.us.state.database.php).

Broad-based product bans and supporting efforts such as labeling and notification requirements inspired the formation of the Interstate Mercury Education and Reduction Clearinghouse (http://www.newmoa.org/prevention/mercury/imerc/about.cfm), which collects, manages and tracks information on mercury products to assist states with the implementation of these laws. Currently 15 states are members. This clearinghouse could serve as a model for international efforts to reduce and track mercury use and product phase-outs.

Specifically, to better address mercury use and products QSC recommends the following:

- A phased ban on the global manufacture, sale and distribution of nonessential mercury-added products, including formulated products, should be adopted, with exemptions allowed for essential products and uses.
    - These phased product bans should become effective as soon as possible, but allow time to ensure that inventories of non mercury-added products are available.
    - One approach that some states have used is to target phase-outs based on mercury content.
    - Examples of products that may be considered essential in the near term include fluorescent lighting, encapsulated dental amalgam, and scientific equipment required by federal or international standards, for which no non-mercury standard or safer and environmentally preferable alternative exists.
- A process to assess and approve exemptions should be developed.
    - This process should include consistent guidelines regarding the burden of proof required and a determination of the party to bear the burden of proof for requested exemptions. Multiple state laws currently place that burden on the manufacturer or user, including for new uses that might not be covered by a listing of banned items.
    - To stay current with technological advancements, periodic reassessments should be required.
- Mechanisms to develop and implement incentives to spur the development and dissemination of mercury-free alternative products should be adopted.
- Efforts to revise and update national, international and consensus standards and testing protocols that may specify or require mercury-containing equipment for which there are safer and adequately performing non-mercury alternatives should be expanded.
    - These efforts should build upon the successful and ongoing efforts by ASTM, EPA and NIST.

To conclude, the states deeply value our ongoing interaction with the State Department and EPA international staff on global mercury reduction efforts and we appreciate the opportunity to provide input based on our experiences addressing many aspects of the mercury issue. We hope that you find our suggestions to be helpful and look forward to the adoption of a binding agreement that will advance global efforts to address mercury pollution and impacts. We look forward to our continued efforts to work together on this issue and we are available to address any questions you may have or to provide any further detail that would be helpful to your consideration of our State recommendations. Please contact me, or staffer Matthew Jones (mjones@ecos.org) 202-624-3665 if you would like to discuss.

Sincerely,

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The Quicksilver Caucus is a coalition of state environmental association leaders working to reduce mercury in the environment. More information about the Caucus is available at: http://www.ecos.org/section/committees/cross_media/quick_silver

[Appendix]

Substantial Reductions in Mercury Pollution are Needed to Protect Children and Environmental Health

Regional Mercury Total Maximum Daily Load (TMDL) Assessments. Under the U.S. Clean Water Act, states are required to develop total maximum daily load (TMDL) estimates for mercury inputs to impaired water bodies. A TMDL is a calculation of the maximum amount of a pollutant that a water body, or group of water bodies, can receive and still meet applicable water quality standards, in this case fish that are safe to eat. An implementation plan to achieve the TMDL is also required.

In 2007 the New England States and New York together completed a regional TMDL for water bodies across the northeast United States that are primarily impacted by the atmospheric deposition of mercury (http://www.neiwpcc.org/mercury/mercurytmdl.asp) This assessment was coordinated by the New England Interstate Water Pollution Control Commission and was reviewed and approved by U.S. EPA. The Northeast regional Mercury TMDL was patterned after an earlier statewide TMDL completed by Minnesota. New Jersey has also completed a similar statewide TMDL assessment.

The NE regional TMDL assessment documented that fish from over 10,000 water bodies and over 46,000 river miles in the northeast were unsafe to eat due to excessive mercury in 2007. Based on national and regional mercury emissions inventories and state-of-the art mercury deposition modeling the NE states determined that anthropogenic mercury inputs to the region's water-bodies would need to be reduced by 86 - 98% for their fish to meet the U.S.EPA fish tissue consumption criterion for mercury (NEIWPCC 2007). The NE TMDL estimates were based on a regional data base of mercury concentrations in several freshwater fish species and relied on a straightforward linear relationship between mercury pollution inputs and fish tissue concentrations as recommended in U.S. EPA guidance. This same approach was also used in the TMDLs completed by MN (http://www.pca.state.mn.us/index.php/water/water-types-and-programs/minnesotas-impaired-waters-and-tmdls/phosphorus-and-mercury-issues/statewide-mercury-tmdl-pollutant-reduction-plan.html?menuid=&redirect=1) which concluded that reductions of 73 or 93% would be needed depending in the region of the state, and NJ (http://www.state.nj.us/dep/watershedmgt/DOCS/TMDL/fish_mercury_071509.pdf), which concluded that a 98% reduction would be needed. All three assessments concluded that substantial mercury deposition in the study areas was attributable to out-of-region and global sources.

The NE Regional TMDL endorsed the binational New England Governors and Eastern Canadian Premiers Mercury Action Plan as the regional TMDL implementation plan (http://www.mass.gov/dep/toxics/priorities/negecp.pdf). The NEG-ECP MAP was adopted unanimously in 1998 by the five New England States and five Eastern Canadian Provinces. The MAP established a long-term goal of virtually eliminating anthropogenic mercury sources in the region. Interim goals included a 50% reduction by 2003, which was achieved, and 75% by 2010, which is likely to have been achieved but is currently under evaluation (Smith, C. M. and L. J. Trip. 2005. Mercury Policy and Science in Northeastern North America: The Mercury Action Plan of the New England Governors and Eastern Canadian Premiers. *Ecotoxicology* 14 (1&2): 19-37). The MAP also included 45 specific elements, including aggressive emission limits for several large source categories and pollution prevention goals targeting unnecessary uses of mercury and enhanced recycling of end-of-life products.

Conclusions. The state TMDL assessments support aggressive mercury pollution reduction goals at the state, national and international levels. The magnitude of the needed improvements means that significant mercury pollution reductions from essentially all sources will ultimately be necessary to adequately protect the global environment and our children.