

TO: Jorge Ocana and the CEC North American Implementation Task Force on Mercury

FROM: C. Mark Smith, PhD, Office of Research and Standards, MA Department of Environmental Protection and Cochair, New England Governors and Eastern Canadian Premiers Regional Mercury Task Force

CC: Greg Susanke, US EPA, OPPT

SUBJECT: Comments on the *Draft Phase II North American Regional Action Plan On Mercury*

DATE: October 14, 1999

I want to commend the national governments for their continued recognition of the serious nature of mercury pollution across the continent. The *Draft Phase II North American Regional Action Plan On Mercury (NARAP)* provides a number of mechanisms to address important aspects of this problem. It provides a reasonable next step in the evolution of more specific and comprehensive international efforts. My comments, which include specific suggestions that I believe will improve the plan, are presented below. These are largely drawn from our regional experiences adopting and implementing the New England Governors and Eastern Canadian Premiers Regional Mercury Action Plan that was endorsed by the 11 New England and Eastern Canadian Provinces in June 1998. Also attached are more specific section by section comments. I believe that these recommendations, if adopted, will strengthen the NARAP's position as an international leader on this issue.

The NARAP does an excellent job of acknowledging the need for expanded efforts to reduce mercury emissions through a combination of pollution control and pollution prevention activities. The plan reasonably reflects the broad range of stakeholder comments that the North American Implementation Task Force on Mercury received during their public workshops on this issue. The Implementation Task Force and CEC staff working on this project should be commended for their work, as the plan obviously reflects a tremendous amount of effort on many difficult issues.

While many of my comments identify areas in the plan that could be improved upon, I wish to note that there are many excellent components to the plan. Some of the specific actions proposed in the NARAP that I strongly endorse include the commitments to: 1) make data collection and reporting on mercury more uniform and comparable; 2) improve national emission inventories; 3) develop a trilateral strategy for achieving virtual elimination of mercury-containing wastes from the health care sector by 2005; 4) evaluate and develop a mercury "retirement" program; 5) evaluate current environmental impact assessment requirements in North America to determine whether they adequately consider mercury-related impacts; and, 6) evaluate approaches to better track mercury imports, exports and uses.

As with any work in progress, several elements of the NARAP could be improved. Overall, the NARAP as it now stands is substantially less specific than the NEG/ECP Regional Mercury Action Plan. Efforts underway in the northeast as well as in other states and provinces also go beyond the NARAP proposal in many areas. I believe that the following suggestions would improve the NARAP and strengthen its international leadership position on the mercury problem. My recommendations largely stem from our regional efforts to address the mercury problem, as presented in the New England Governors and Eastern Canadian Premiers (NEG/ECP) Regional Mercury Action Plan, as well as efforts the state of Massachusetts is making to address this problem.

OVERALL COMMENTS:

- 1) I recommend that the NARAP adopt a more aggressive goal for tri-national mercury emission reductions. The stated goal of a 50% reduction for mercury emissions by 2006 is not as aggressive as the regional goal adopted in the NEG/ECP Regional Mercury Action Plan. First of all, the 2006 deadline combined with the choice of a baseline of 1990 gives a 16-year time frame for achieving the NARAP goal. The NEG/ECP Mercury Action Plan calls for a 50% reduction in approximately half that time. Also, as worded, it appears that this goal only applies to existing major stationary sources. In the NEG/ECP Mercury Action Plan, all inventoried sources were included in the baseline. A larger reduction goal would help to push the envelope on international mercury reduction efforts and should be considered.
- 2) I recommend that Action Item 6, *Implementation and Compliance*, be made more specific with respect to process and that timelines be added. Overall, the plan relies heavily on voluntary programs. We in the Northeast have approached the mercury issue using a blended approach that includes voluntary, regulatory and legislative efforts. Voluntary approaches to issues such as emission controls; phase-outs of unnecessary mercury uses; product labeling; product take-backs, etc can and have been effective. Unfortunately, voluntary efforts may not always be successful. In order to ensure that timely progress is made in reducing mercury releases to the environment, I recommend that firm deadlines and more specific processes be established to evaluate the effectiveness of the voluntary efforts called for in the NARAP. These should be backed up by commitments to proceed with alternative approaches should voluntary efforts not succeed.
- 3) MADEP and the MA Executive Office of Environmental Affairs have supported state legislation that requires manufacturers to label mercury-added products. Other states in the northeast have either adopted or are considering similar legislation. The NARAP should stipulate that similar requirements be adopted at the national levels, either through voluntary efforts (with deadlines) or regulatory approaches.
- 4) MADEP and the MA Executive Office of Environmental Affairs have also supported legislative provisions requiring manufactures to provide and pay for product stewardship through proper segregation, collection, disposal and recycling systems for mercury containing waste products. Again, the NARAP should include more explicit provisions requiring manufacturers to establish effective product stewardship programs.
- 5) Because of the transboundary nature of mercury pollution and evidence that coal-fired utilities are a significant source of mercury emissions, as well as other forms of pollution impacting the NE, I recommend that coal-fired utilities be explicitly addressed in the NARAP. Coal-fired utilities, including existing facilities, should be required to address their mercury emissions. Towards this end, the plan should include commitments to fully fund the testing of mercury emission control technologies over the next two years. An explicit commitment to develop and implement national mercury emission reduction targets for new and existing coal facilities should also be included. Because they are the sources of multiple pollutants including ozone precursors, particulates, and acid precipitation precursors (as well as others), the environmental gain of pollution reduction strategies for utilities should consider, for any control option, the benefits attributable to the full suite of pollutants rather than each pollutant in isolation.
- 6) The NARAP proposes only one specific emission limit for a major mercury emission source, that being a proposed value for new chlor-alkali plants. Specific emission limits should be

included for other categories, in particular municipal solid waste combustors (MSWCs) and medical waste incinerators (MWIs). Commitments to develop emission limits, within specified timelines, should also be adopted for other source categories. Again, the NEG/ECP Regional Mercury Action Plan includes aggressive yet achievable emission limits for several major source categories and commitments to develop limits for other major categories.

- 7) Existing sources should be explicitly considered. Many of the provisions of the NARAP seem to apply only to new sources. It is critical that major existing sources be addressed at the national levels as well.
- 8) I would also like to note that the New England Governors and Eastern Canadian Premiers, at their recent meeting in October 1999, endorsed a resolution calling for additional support from the national environmental agencies and other organizations, such as the CEC, for our bi-national efforts to control mercury in the northeast. This regional project and others also underway, serve as living policy laboratories for developing and testing different approaches to the mercury problem. They have already provided valuable insights and policy initiatives to reduce mercury pollution and, with additional support, would be able to accomplish even more. I would therefore suggest that the NARAP explicitly acknowledge these regional efforts and call for additional funding commitments to support their efforts.
- 9) Lastly, I urge the CEC Implementation Task Force on Mercury to expand its membership to include formal representation by the NEG/ECP Regional Mercury Task Force. Although I understand the need to limit participation in such efforts to a manageable level, I believe that formal representation by this coalition of 11 states and provinces, which together have made significant progress in jointly dealing with the mercury problem in the northeast region of the continent, is advisable. Our experiences in developing and implementing the NEG/ECP Mercury Action Plan would provide a valuable addition in your tri-national efforts on this issue.

ATTACHMENT 1.

DRAFT PHASE II NORTH AMERICAN REGIONAL ACTION PLAN ON MERCURY: SECTION BY SECTION COMMENTS

Action Item 1: Management of Atmospheric Emissions of Mercury

1ai. As noted earlier the overall goal should be strengthened.

1aii. Overall, the intent of this action item and the next are unclear. Does this mean a maximum achievable control technology (MACT) or a “beyond MACT” analysis for all major mercury emission source categories or something else? The definition of a major source here is also unclear; does it apply to individual facilities only or to a category as a whole? Are existing sources excluded? Clarification would really help here, especially since it is the leadoff section to the plan.

1b. Excellent to include. The plan correctly notes that more consistency in data collection and reporting is needed, as is better data on potential mercury emissions from the sources listed.

Action Item 2: Mercury Management in Processes, Operations, and Products

2a i and ii. These are excellent elements to include. There is a real need for more comprehensive tracking of mercury use, storage, import and export. More extensive use of lifecycle analysis and management practices is, as noted in the plan, needed.

iii. I commend the NARAP recommendation for expanded programs and incentives to phase-out unnecessary mercury uses. However, additional consideration of mandatory phase-outs should be included.

iv. It is unclear what reference to “free movement in trade” for recovered/recycled mercury means. This could be interpreted as being inconsistent with tracking/retirement elements discussed elsewhere in the plan.

2b. Action Item 6 should be cross-referenced here. As noted in general comments, timelines for implementation of effective voluntary programs and a more specific process for evaluating these programs are needed.

iii. The Plan should call on auto manufacturers to eliminate unnecessary uses of mercury by a date certain. Industry should have to justify continued use on basis of a documented need relative to safety issues and a lack of alternatives.

iv. The proposed effort to address mercury in existing vehicles is much needed. However, the market price of recycled mercury is unlikely to provide a sufficient incentive to auto scrappers/recyclers to remove mercury-containing products from junked vehicles. Thus, it is doubtful that an outreach program will, in and of itself, be successful. Additional incentives should be explored.

2c.i. A baseline should be specified. Continued use of 80 tonnes/yr is substantial and more aggressive reduction goals should be explored. Post 2005 reduction goals should also be stipulated. Possibilities for phasing-out or converting existing plants, perhaps through the use of

national and international mechanisms to provide financial incentives and/or assistance, should be explored.

ii. It would be more direct to simply prohibit: 1) the construction of new mercury process chlor-alkali facilities; and, 2) the expansion of existing plants. This is feasible because alternatives do exist.

2d-f. The plan should call for mercury-added products to be labeled and establish mechanisms for the segregation of waste products for mercury recycling/retirement by a date certain, either through voluntary programs or regulatory approaches.

2g. Proposed efforts to achieve a virtual elimination goal in health care sector by 2005 are excellent.

2h. Excellent as is.

2i. As an addition to this section I recommend that a program to eliminate unnecessary uses of mercury in schools be established.

Action Item 3: Mercury Waste Management Approaches

3a. Proposal for life-cycle management of mercury containing wastes, including pollution control device wastes is excellent.

3b. It is really not that technically difficult to substantially reduce mercury levels in incinerator emissions. The plan should acknowledge this and specify stringent emission limits for all such facilities (see the NEG/ECP Regional Mercury Action Plan). However, because these controls are not 100% effective and since contaminated ash results, the pollution prevention programs discussed in this section are also needed.

3c. Good, but again discharge limits should be developed and adopted. These are needed to drive pollution prevention efforts.

3d. Excellent, but again timelines and process to evaluate voluntary efforts need to be fleshed-out.

3e. Excellent.

3f. Excellent.

Action Item 4: Research, Monitoring, Modeling, Assessment and Inventories

This entire section is excellent. The only comment I would add is that there is a need for additional work on appropriate environmental indicators for mercury and this should be explicitly noted in the plan.

Action Item 5: Communication Activities

This section is also very good. Opportunities for weaving the mercury issue into science curricula should be further explored. Also, this section should address outreach and communication to the

commercial sector and consumers about ways to reduce mercury use and appropriately handle and dispose of mercury containing products.

Action Item 6: Implementation and Compliance

This is a critical section and the drafters are to be commended for including it. However, this section needs more specificity with respect to the approaches that will be used to evaluate success, especially of voluntary programs, as well as timelines for when, as noted in item 6a iii, other approaches are to be pursued. The success of large portions of the NARAP depends on an effective and timely process for evaluating success or lack thereof. Given the importance of this element of the NARAP, reference to it should be made in other sections of the plan.