

# **Advisory Committee on Mercury Pollution 1999 Report**

to the

Governor, General Assembly and Citizens  
of the State of Vermont

January 15, 1999

## Committee Members:

Representative David Deen, Chair  
Michael Bender, Abenaki Self-Help Association, Inc.  
William Bress, Vermont Department of Health  
Ric Erdheim, National Electrical Manufacturers Association  
Richard Phillips, Vermont Agency of Natural Resources  
Senator Elizabeth Ready  
Timothy Scherbatskoy, University of Vermont, School of Natural Resources  
Hollie Shaner, Fletcher Allen Health Care

## **Legislative History**

Although Senate Bill S.181 was introduced to promote manufacturer labeling and the take-back of mercury-added consumer products, much larger political, economic, scientific, and public health issues became the focus in the final legislation, Act 151, because mercury-added consumer products are only one element of not only Vermont's but the global mercury pollution problem.

In December 1997, responding to 1990 Clean Air Act Amendment requirements, the United States Environmental Protection Agency (EPA) issued its comprehensive, 8-volume Mercury Study Report to Congress. The Mercury Study inventoried the quantity of emissions to the air from various human activities, estimated the health and environmental impacts of those emissions, and described the technologies available to control those emissions. While the EPA study was national in scope, a similar regional effort was mounted, expanding upon EPA data, to assess the impacts of mercury emissions in the Northeast States and Eastern Canadian Provinces. That study, the Northeast States and Eastern Canadian Provinces Mercury Study: A framework for Action, was released in February 1998 and became part of House and Senate committee consideration of S.181 .

The EPA and regional study perspectives paint broad pictures of mercury in the larger ecosystem, but do not fully speak to conditions in Vermont. Seeking to close that information gap, the General Assembly created this Advisory Committee on Mercury Pollution. Selected to represent specific constituencies and areas of expertise, the committee is specifically designated to consist of one member from the house of representatives, a senator, a representative from the Agency of Natural Resources, a representative from an industry that produces mercury-added consumer products, a public health specialist, a toxicologist, a scientist knowledgeable on matters related to mercury contamination and a representative for the Abenaki Self-Help Association, Inc.

In annual reports, beginning January 15, 1999, the Advisory Committee will report on:

1. the extent of mercury contamination to Vermont's soil, water and air
2. health risks from mercury contamination in Vermont
3. methods to minimize risk of further contamination or increased health risk
4. the potential costs for minimizing future risks and how to pay for them
5. the effectiveness of existing mercury-containing waste source reduction programs
6. ways to coordinate with other states to effectively address mercury issues
7. ways to reduce incineration of Vermont's solid wastes

## **Current work of the Committee**

Appointed by the Governor over the course of the Summer, this Committee has been able to meet only twice, to date, on October 2nd and November 5th, 1998. Given the limited amount of time since the inception of the committee and submission of its first report, our focus will be to provide, in the form of five general recommendations, our consensus opinion on some of the broader issues raised by Act 151. Detailed analysis of specific items from the legislative charge, enumerated above, will become the substance of future annual reports.

## Committee Recommendations

- #1** The General Assembly should require that Vermont solid wastes destined for incineration be disposed only at facilities which meet a 0.028 milligrams per dry standard cubic meter mercury emission standard.

Discussion: The 0.028 milligrams per dry standard cubic meter mercury emission standard is a key component of the 1998 Mercury Action Plan of the Conference of New England Governors and Eastern Canadian Premiers to which the State of Vermont has already committed itself. Statutory language such as contained in Section 5 of the 1998 House Proposal of Amendment to S.181 may be necessary for compliance with federal law.

It is certainly true that incinerators without mercury controls capture very little mercury. However, even those larger incinerators required to have mercury emission controls by the year 2000 will still only be capable of recapturing around 90% of the mercury contained in their waste streams. Consequently, any solid wastes destined for incineration should be subjected to source separation programs for mercury-added products.

- #2** As a matter of public policy, the State of Vermont should be moving toward elimination of waste incineration. The toxicity of mercury and other emissions, coupled with the cost and difficulty of controlling them, argue against this method of waste disposal.

Discussion: The committee recognizes that in the short term, strengthening local source separation programs may help reduce mercury emissions from incineration. However, in the longer term, municipalities and solid waste districts may need planning assistance from the state to investigate and secure viable alternatives to waste incineration or to investigate the renegotiation of existing waste incineration contracts.

- #3** The committee supports development of programs for the collection of waste mercury, mercury compounds and mercury-containing products (such as appliances, switches and thermometers). Two such programs are envisioned to begin in 1999 with state support: (1) a high school lab chemical cleanout project proposed by the Agency of Natural Resources and (2) a dairy manometer collection and replacement project proposed by the Department of Agriculture are particular priorities.

Discussion: Compared to other sources, where small amounts of mercury are dispersed through a large number of products or devices which must be collected for processing, each farm manometer or school science lab can yield a pound or more of mercury. When compared with the approximately \$9000 needed to recover a pound of mercury from waste fluorescent lamps, the Department of Agriculture manometer replacement program projections of approximately \$300 per participating farm are impressive. The Agency of Natural Resources preliminary cost estimate for a state-wide school lab cleanout of an estimated 100 schools approaches \$200,000 over two years, in part, because all hazardous waste lab chemicals would be collected .

- #4** The so-called “Universal Waste” provisions of Vermont’s Hazardous Waste Management Regulations should be expanded to include all mercury-added products.

Discussion: The committee is aware that there are mercury-added products other than those listed in Act 151 and that, of those listed, not all are necessarily “consumer products”. However, all these products are common in both households and many small businesses. Without readily accessible collection programs available either through municipal solid waste programs or through the firms that sell and service the products, many of these items can easily find their way into solid wastes. In the latter case, universal waste designation removes many significant hazardous waste regulatory barriers to the establishment of collection programs. Ideally, national legislation containing a provision on universal waste similar to the “Mercury-Containing and Rechargeable Battery Management Act” of 1996 should be enacted for all mercury-added products.

- #5** The Vermont Department of Health should develop a research proposal to find out the extent of mercury risk to Vermont populations that eat large numbers of fish.

Discussion: Significant amounts of work have already been done by the Vermont Department of Health in its outreach efforts to state’s Vietnamese community. Similarly, a recently completed pilot community health evaluation study by the River Watch Network and the Abenaki Self Help Association contains a cross-sectional epidemiological survey of Abenaki anglers in Vermont. Coordinated through a properly designed scientific investigation, these studies could hold potential for serving as the basis of a meaningful analysis of impacts from the consumption of freshwater fish in Vermont.

### **Future work of the Committee**

In the coming year the Committee wishes to pursue four distinct lines of investigation:

1. Because hazardous air emissions are not limited to mercury, the Committee would like to evaluate a requested Agency of Natural Resources report on existing air emission standards and the feasibility of future control technologies.
2. In the past, at the request of the Legislature, both the Offices of the Attorney General and of the State Auditor have conducted analyses of New Hampshire-Vermont Solid Waste Project finances and obligations. In light of Act 151, the committee would be pleased to see those studies updated and have an opportunity to review them.
3. Recognizing that public education will be essential to reducing Vermonters mercury exposure, the Committee intends to review data on public health risks from mercury and how to educate our citizens about those risks.
4. The Committee is hopeful that its Recommendation #5 can be pursued and looks forward to evaluating a future Department of Health/Abenaki mercury exposure impacts study.

By the Advisory Committee on Mercury Pollution:

Chairman:

Representative David Deen

Members:

Michael Bender \*

William Bress \*

Ric Erdheim \*

Richard Phillips \*

Senator Elizabeth Ready

Timothy Scherbatskoy

Hollie Shaner

**\* Qualification from National Electrical Manufacturers Association**



January 21, 1999

Representative David Deen  
5607 Westminster West Road  
Putney, VT 05346

Dear David:

I received John Miller's memo on the final text of the 1999 Advisory Committee Report and have carefully reviewed the report. I appreciate that the report incorporates many of the suggestions I made on the draft. I am willing to sign off on the report, however, only on the condition that the report includes my opposition to two statements that purport to be Committee consensus positions. The minutes of the two meetings fail to reflect any such consensus. Furthermore, I believe the statements reflect inappropriate policy.

My first concern is the last sentence of the discussion of Recommendation #1. This sentence says, "Consequently, any solid wastes destined for incineration should be subjected to source separation programs for mercury-added products." This is an unqualified recommendation for source separation of all mercury-containing products, even if the costs of such separation exceed the benefits. While I appreciate that the word "aggressive" has been deleted from the original draft, my concern about such an unqualified endorsement of source separation remains. I recommend that you delete this sentence.

I have a similar concern with the first sentence of recommendation #3. This sentence says, "The committee supports development of programs for the collection of waste mercury, mercury compounds and mercury-containing products (such as appliances, switches, thermometer)." The recommendation goes on to support the school cleanup and manometer collection programs. The Committee did agree and I support the two identified programs. I support these programs because they are targeted and we were able to evaluate the benefits and costs of such efforts. Without reviewing specific wastes, compounds or products and evaluating the benefits and costs of such efforts, I believe it is inappropriate to give an unqualified endorsement of collection programs as called for in the first sentence. I recommend the first sentence be rewritten to reflect the Committee's support for the two identified programs only.

I look forward to continuing to work with you and the other Committee members to develop effective approaches to reducing mercury emissions to the environment. If you would like to discuss my comments, please call me at 703-841-3249.

Sincerely,

Ric Erdheim  
Senior Manager  
Government Affairs

**\* Qualification of Department of Health and Agency of Natural Resources**

The Agency of Natural Resources and the Department of Health fully support all recommendations except No. 2. We cannot fully accept the position on incineration elimination at this time. Before taking a position on such a significant policy issue, we will need to build upon the work of the committee to more fully evaluate the public health, environment and economic effects of this policy and the implications of its implementation.

**\* Qualification from Michael Bender**

With the condition under Committee recommendation #3 that the State only appropriate funds for manometers and school clean out that provides for a recommendation for phase out in use of these products, devices and materials over time.