A FAILURE TO ELIMINATE: A Report Card on Mercury Elimination in New England
New England Zero Mercury Campaign Partners

Clean Water Fund New England
Clean Water Action New England
Connecticut Sierra Club
Health Care Without Harm
Mercury Policy Project, A Project of the Tides Center
Natural Resources Council of Maine
National Wildlife Federation
Rhode Island Sierra Club
Toxics Action Center

Acknowledgements

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for their generous support of the
New England Zero Mercury Campaign.
The contents of this report are the sole responsibility
of the campaign partners.

On the Web

For a copy of this report, go to www.mercurypolicy.org.

Summer 2001
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Executive Summary

The New England states are making uneven progress ranging from “poor” to “good” toward eliminating mercury hazards to human health and wildlife. Overall, New England earned a grade of “C-” for its actions toward achieving the “virtual elimination of the discharge of anthropogenic (human-caused) mercury into the environment.” The New England Governors and Eastern Canadian Premiers adopted this regional goal in their Mercury Action Plan 1998.

Further actions are still needed to successfully reduce and eliminate mercury in New England. We call on the New England Governors to create timelines and targets to achieve the goal of virtual elimination by 2010. The upcoming 26th Conference of the New England Governors and Eastern Canadian Premiers offers an excellent opportunity to commit to actions to achieve virtual elimination of mercury by the year 2010. (They meet August 26-28 in Westbrook, CT).

A Zero Mercury Action Plan forms the basis for grading each state’s progress toward mercury reduction and virtual elimination. The plan includes action steps to phase out mercury in consumer products, reduce mercury from dental amalgam and from burning coal and oil, and to prevent unsafe human exposure to mercury in fish. The Plan draws upon prior commitments and model policies supported by the New England Governors.

Consumer Products. The New England states have significantly reduced mercury air emissions through pollution controls on incinerators that burn mercury products disposed of in municipal and medical waste. But these controls only partially capture mercury from the air for disposal in landfills. Now attention must turn to serious source reduction as proposed in the model legislation developed by the Northeast Waste Management Officials Association (NEWMOA). Maine, Vermont and New Hampshire have enacted some parts of the NEWMOA model law. A much more serious commitment to passage of the entire NEWMOA policy framework is needed throughout New England. Mercury products cannot be used without eventually releasing mercury into the environment. Consumer products containing mercury must be phased out in favor of safer alternatives.

Dental Amalgam. The New England states have done a poor job so far in reducing and preventing mercury releases from dental amalgam, the so-called “silver” fillings that consist of about half mercury. Dental fillings constitute the largest source of direct mercury pollution in wastewater. Mercury is discharged from dental offices, escapes from fillings in human waste and is emitted into the air from cremation. Several states have begun to investigate the need for amalgam separators to reduce mercury discharges from dental offices, but none have mandated them. Little progress has been made by the states to reduce the use of mercury in dentistry or to reduce mercury emissions from crematories.

Coal and Oil. The New England states have moved too slowly to reduce mercury emissions from the six coal-fired power plants in the region. Massachusetts has regulations to require mercury reductions, but neither New Hampshire nor Connecticut, where the other plants are located, do. Actual mercury reductions from coal plants are still years away. As the most pollution-intensive fossil fuel, coal use should be reduced and eventually phased out through increased energy efficiency, conversion to natural gas, and increased use of
renewable energy sources that have minimal environmental impact. The burning of fuel oil for heating and electricity also generates mercury emissions that could be reduced through conservation. All the states have energy conservation programs under development, but much more aggressive actions are needed to reduce mercury and other pollutants.

**Exposure Reduction.** The New England states have done a good job at developing health-based advisories that warn people to avoid or limit the eating of mercury-contaminated fish. But much more effort is needed to effectively communicate these health warnings to women who may become pregnant and families with young children. Exposure reduction remains a critical priority because efforts to reduce mercury pollution will take years before all fish are healthful to eat again. Strategically targeted and culturally sensitive outreach and education is needed to prevent dangerous mercury exposure from fish, especially from commonly eaten seafood.

Mercury is a highly toxic, naturally occurring element released into the environment from mining; the production, use and disposal of consumer products; dental amalgam and from burning fossil fuels and other materials. Mercury exposure damages the nervous system and can have other toxic effects. The growing brains of babies are especially sensitive to the neurotoxic effects of mercury. One in ten women of child-bearing age are exposed to mercury in seafood and freshwater fish in amounts that can injure the health of their unborn children, according to the data from a March 2000 Centers for Disease Control study. Prenatal mercury exposure can later hurt children’s ability to remember, pay attention, talk, draw, run and play, and increase the number of children who have trouble keeping up in school or require special education, according to the National Academy of Sciences.

About half the mercury air emissions in the North-
Zero Mercury Action Plan:
Ten Point Plan for Eliminating Mercury Use, Emissions and Exposure

PHASE OUT MERCURY IN CONSUMER PRODUCTS

1. Remove, collect and recycle mercury products
2. Phase out the sale of mercury-added products in favor of safer available alternatives
3. Disclose the mercury content of all mercury-containing products in the interim

REDUCE MERCURY FROM DENTAL AMALGAM

4. Prevent and reduce mercury releases from the use of dental amalgam

REDUCE MERCURY FROM FOSSIL FUEL COMBUSTION

5. Dramatically reduce reliance on coal burning throughout New England
6. Reduce the burning of fuel oil for heat and electricity through conservation

PROTECT HUMAN HEALTH FROM MERCURY EXPOSURE

7. Use strict health-based standards to limit mercury releases and human exposure
8. Issue protective health warnings to limit eating of mercury-tainted fish
9. Communicate health hazards to effectively reduce mercury exposure from eating fish

ADVOCATE FEDERAL POLICY ACTION ON MERCURY

10. Take action to promote federal policy decisions to reduce and retire mercury

See Appendix B for the detailed Zero Mercury Action Plan
The New England States

In 1998, the New England Governors pledged to virtually eliminate mercury emissions from human activities. The New England Zero Mercury Campaign has graded the progress made by each New England state toward the goal of virtual elimination of mercury by 2010.

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<th>New England State</th>
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<td>CONNECTICUT</td>
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<td>MAINE</td>
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<td>MASSACHUSETTS</td>
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<td>NEW HAMPSHIRE</td>
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<td>RHODE ISLAND</td>
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<td>VERMONT</td>
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OVERALL GRADE for NEW ENGLAND: C-

What’s Working Well:
The New England states have reduced mercury air emissions through pollution control regulations on municipal and medical waste incinerators. New England has been a strong advocate of federal action to reduce mercury from midwestern coal-burning power plants and to permanently retire leftover mercury from industry and government stockpiles. Maine, Vermont and New Hampshire have enacted legislation that begins to reduce mercury from consumer products. Most of the New England states have issued health warnings that restrict eating of mercury-contaminated fish.

What Needs Improvement:
To succeed, all New England states must quickly pass laws to phase out mercury from consumer products by 2010. Massachusetts and New Hampshire must take aggressive action to dramatically reduce coal burning at power plants. All states must aggressively promote fuel switching, renewable energy and conservation at all coal- and oil-burning facilities. New England must prevent mercury water pollution from the use of dental mercury amalgam fillings. To prevent damage to human health from mercury-contaminated fish, all states must immediately implement comprehensive programs to effectively reach and warn all vulnerable individuals.

Grader: The New England Zero Mercury Campaign Partners
In 1998, the New England Governors pledged to virtually eliminate mercury from human causes. The New England Zero Mercury Campaign has identified ten actions that will enable the states to virtually eliminate mercury by 2010. The Campaign has graded each state on the progress made to date on this ten-point Zero Mercury Action Plan.

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**OVERALL GRADE:** D

**What’s Working Well:**
In the state of Connecticut, protective health warnings and statewide health advisories for consumption of mercury-tainted fish have been developed. A variety of voluntary mercury education and collection programs have been implemented with varying levels of success. Although defeated, legislation supported by Governor Rowland and the Connecticut Department of Environmental Protection that was based on the comprehensive NEWMOA model mercury legislation was introduced in the 2001 CT legislative session. Connecticut has reduced mercury air emissions through pollution control regulations on municipal incinerators.

**What Needs Improvement:**
Connecticut needs to improve in both preventing additional mercury from being released into the environment, and in warning citizens of existing fish-consumption advisories. The state needs to institute mandatory and comprehensive labeling, collection, take-back, and phase-out programs for mercury-containing products. Passing the NEWMOA model mercury legislation would achieve this goal. Also, Connecticut must more effectively educate the public about comprehensive warnings regarding mercury and mercury-contaminated fish and human health.

**Graders:** Clean Water Action, CT Sierra Club, Toxics Action Center
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OVERALL GRADE: B

What’s Working Well:
Maine has enacted four new laws on mercury in the last two years – to label and recycle mercury products, to ban fever thermometers and require disclosure of mercury in products sold to hospitals, to establish strict water quality standards, and to require dentists to inform patients about mercury in amalgam fillings. Maine has also issued protective health warnings to limit eating of mercury-contaminated fish. Maine has strongly advocated federal government action to retire surplus mercury. Maine’s hospitals have pledged to virtually eliminate mercury.

What Needs Improvement:
Maine should continue its good work to phase out mercury from consumer products. Maine needs to require dentists to remove mercury from wastewater and reduce mercury use. Maine needs to be more aggressive in reducing in-state coal use and advocating action to reduce mercury from upwind coal-fired power plants. More effort is needed to promote energy conservation and renewable energy sources that have a minimal environmental impact.

Grader: Natural Resources Council of Maine
In 1998, the New England Governors pledged to virtually eliminate mercury from human causes. The New England Zero Mercury Campaign has identified ten actions that will enable the states to virtually eliminate mercury by 2010. The Campaign has graded each state on the progress made to date on this ten-point Zero Mercury Action Plan.

**MERCURY ACTION STEP** | **GRADE**
--- | ---
1. Remove & Recycle Mercury Products | D
2. Phase Out the Sale of Mercury Products | F
3. Disclose the Mercury Content in Products | D
4. Reduce Mercury from Dental Amalgam | D+
5. Dramatically Reduce Reliance on Coal | C-
6. Reduce Burning of Fuel Oil | B+
7. Use Strict Health-Based Standards | C
8. Issue Protective Health Warnings | A
9. Effectively Communicate Warnings | D+
10. Advocate Federal Action on Mercury | C

**OVERALL GRADE:** C-

**What’s Working Well:**
Massachusetts has set a key goal to seek the elimination of mercury use, as opposed to just mercury emissions. Requiring programs to remove mercury products prior to waste incineration through material separation plans, along with the tighter air emission standards and an incinerator moratorium are all important steps underway to reduce mercury emissions from waste incineration. Recently issued power plant regulations include a requirement for stack controls for mercury, which, when carried out, will result in a significant reduction in air emissions from fossil fuel burning, and would be the first in the country. Under the oversight of the Massachusetts Water Resources Authority, important steps have been taken in reducing the use and release of mercury from hospitals. The Department of Public Health is poised to issue new protective health warnings to limit eating of contaminated fish.

**What Needs Improvement:**
In order to virtually eliminate mercury from the waste stream, the Massachusetts legislature must pass H-2217, An Act to Regulate Products Containing Mercury, and most importantly, include the provision to phase out mercury in products. It will also be necessary for Massachusetts to phase out coal burning in the state, with a program to switch to natural gas and renewable clean energy. In the interim, coal ash and incinerator ash should be disposed of safely in hazardous waste landfills. Effective programs to educate all consumers about the dangers of mercury contaminated fish must be implemented, including point of sale warnings.

**Grader:** Clean Water Action and Health Care Without Harm
New Hampshire

In 1998, the New England Governors pledged to virtually eliminate mercury from human causes. The New England Zero Mercury Campaign has identified ten actions that will enable the states to virtually eliminate mercury by 2010. The Campaign has graded each state on the progress made to date on this ten-point Zero Mercury Action Plan.

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OVERALL GRADE: D+

What’s Working Well:
NH took early initiative in regulatory actions and planning for further mercury reductions and public outreach, with its Mercury Reduction Strategy and subsequent Mercury Task Force efforts. Legislative follow-through has been more uneven, with last year’s thermometer ban and incinerator emission reductions being the major accomplishments to date. The state has been vocal in support for federal actions to reduce mercury emissions, and outreach to the medical community on voluntary reductions has been significant.

What Needs Improvement:
Source reduction and labeling legislation needs to be enacted without weakening amendments, as does legislation to significantly reduce mercury from the state’s three fossil-fueled power plants. Much greater effort needs to be made, with sufficient funding, to effectively communicate the health warnings, especially to sensitive groups, about mercury in fish. The state also needs yet to tackle the problems of mercury in dental amalgam and fuel oil conservation/switching.

Grader: Clean Water Action
In 1998, the New England Governors pledged to virtually eliminate mercury from human causes. The New England Zero Mercury Campaign has identified ten actions that will enable the states to virtually eliminate mercury by 2010. The Campaign has graded each state on the progress made to date on this ten-point Zero Mercury Action Plan.

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**OVERALL GRADE:** D

**What’s Working Well:**

Many efforts by state agencies to reduce mercury emissions in Rhode Island have begun in 2001. The Governor’s office and Department of Environmental Management have introduced the Mercury Reduction and Education Act, which would be the first legislation to systematically address mercury elimination in the state. Other initial collaborative efforts to address mercury have included the Department of Health, the Rhode Island Attorney General’s office, Rhode Island Resource Recovery Corporation, Narragansett Bay Commission, the U.S. Environmental Protection Agency Region One, as well as the Rhode Island Dental Association and environmental groups. Rhode Island hospitals are developing plans to phase out mercury emissions. Rhode Island has already taken the initiative to ban municipal waste incinerators, one of the largest sources of mercury emissions in the other New England states.

**What Needs Improvement:**

The General Assembly needs to pass the Mercury Reduction and Education Act this year which includes key steps to eliminate mercury including: banning mercury thermometers, labeling and phasing out mercury-containing products, and promoting manufacturer responsibility through take back programs for mercury-containing products. The Health Department needs to finish developing protective health warnings about mercury-contaminated fish and implement a program to effectively communicate those warnings to reduce Rhode Islanders’ exposure to mercury. The state also needs to take action to reduce mercury emissions from dental offices and require dentists to inform their patients about mercury.

**Graders:** Clean Water Action, Sierra Club Rhode Island Chapter
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**What’s Working Well:**
Historically, Vermont has been a leader within the region in taking steps to reduce mercury emissions and exposures, passing landmark mercury products legislation in 1998, and Governor Dean took a leadership role in promoting further mercury reductions within the region. State environmental agencies, local waste districts and the Advisory Committee on Mercury Pollution (created under the law) are working diligently to carry through on that law’s product labeling requirement, landfill ban and product collection provisions. At the same time they are recommending aggressive new efforts on product phase-outs and immediate bans on thermometers and other items. The Attorney General’s Office continues to defend lamp labeling requirements in a lawsuit brought by lamp makers, while the state Health Department has taken a leadership role in setting standards for protecting sensitive populations from mercury exposure.

**What Needs Improvement:**
Unfortunately, Vermont has failed to build on prior successes this year. A legislative proposal to phase out the sale of mercury-added products stalled in committee and a bill to alert consumers about mercury levels in fish never got a hearing. Despite his support for mercury reduction measures, the Governor floated the idea that Vermont should consider siting a coal-fired power plant. And though the state’s mercury consumption advisories are strong, they have not been adequately publicized to protect the public. Legislators need to move promptly to enact phase-out legislation; the DEC needs to follow through on its proposal to post advisories at all boat landings; and the state needs to continue to provide support for alternative power sources.

**Graders:** Mercury Policy Project, Vermont Public Interest Research Group, National Wildlife Federation
Harm. Mercury levels in the environment have increased 2-to-5 fold over the past century due to human activities, posing an increased risk to people, wildlife and the environment. Mercury makes its way into waterways through both wet and dry deposition and correlates to increased risks as it makes its way up the food chain. The mercury originates from both within and outside the region—although approximately half of the mercury emitted in New England comes from within the region. Monitoring data taken from across the northeast since the 1970’s indicate that mercury is pervasive at levels that significantly exceed acceptable values in certain fish species and waterbodies.

Ingestion of mercury-contaminated fish is the primary pathway of exposure to methylmercury for most New Englanders. Women of childbearing age, pregnant women and young children are at particular risk because the developing nervous system of a fetus and young child is particularly sensitive to the toxic effects of mercury, which can impair memory, attention span, language and motor skills (NRC, 2000). Wildlife that eat fish, such as loons and bald eagles, are also seriously threatened by mercury pollution which impacts reproductive rates and chick mortality (BRI, 2001).

Sources. Although mercury is present naturally in New England’s environment, human activity contributes the majority of mercury releases. In 1996, the human-caused sources of mercury emissions at the regional level were municipal waste incinerators (45%), non-utility boilers (18%), coal-fired power plants (13%), manufacturing sources (7%), sewage incinerators (6%), area sources (6%), and medical waste incinerators (5%) (NESCAUM, 1998).

Incinerators emit mercury when they burn wastes containing mercury. Medical waste incinerators acquire mercury from medical devices like thermometers and blood pressure devices. Mercury in consumer products is discarded in municipal waste as thermometers, fluorescent lights, thermostats, and other items.

Non-utility boilers mostly burn fuel oil for commercial and industrial energy and for home heating.

Even though coal-fired power plants are the single largest source of mercury pollution in the U.S., they contribute 13% of New England’s regional emissions. These plants produce mercury by burning coal; the coal contains mercury that is released during the combustion process.

Area sources include mercury emissions from old paint use, lamp breakage, laboratory use, dental use and crematories.

Mercury emissions in the Northeast come from local, regional, national and global air pollution. Forty-seven percent of the mercury deposited in the Northeast originates within the region, 30% comes from outside the region, and 23% comes from the global mercury reservoir. Northeast states are responsible for about 11% of the nation’s mercury emissions, emitting approximately 35,000 pounds of mercury to the air 1996.

History. In response to growing awareness about mercury’s impacts on people and the environment, in June 1997 the Conference of New England Governors and Eastern Canadian Premiers (NEG/ECP, 1997) charged its Committee on the Environment to begin to address these issues by developing a regional Mercury Action Plan. In addition to the
health and environmental impacts from mercury contamination, the NEG/ECP also expressed concerns related to economic considerations, including tourism and the recreational and commercial value of fisheries within the region.

In 1998, the NEG/ECP adopted an unprecedented Mercury Action Plan and a regional goal: “The virtual elimination of the discharge of anthropogenic mercury into the environment, which is required to ensure that serious or irreversible damage attributable to these sources is not inflicted upon human health and the environment (NEG/ECP, 1998a, 1998b).” The ultimate goal of the NEG/ECP Plan is to reduce mercury contamination to levels that are safe for both people and wildlife across the region.

The Plan sets an interim goal for reducing mercury releases within the region by 50% by 2003 and provides a series of 45 recommendations—including instructions to develop model legislation on mercury—to reduce both mercury releases and exposures.

With wide stakeholder input, the Northeast Waste Management Officials Association (NEWMOA) subsequently developed the Mercury Education and Reduction Act (NEWMOA, 2000). The NEWMOA model mercury legislation represents a critical next step toward reducing and eliminating mercury releases within the region. The model legislation includes provisions for notification, phase-out and exemptions, labeling, disposal ban, collection and manufacturer responsibility, public education and outreach, and control of the sale of elemental mercury.

Since 1998, a number of actions have been proposed and adopted to reduce mercury emissions and exposures. Legislation modeled after NEWMOA’s model bill has been introduced in all six New England states, certain classes of waste incinerators must meet more stringent mercury emission standards, and mercury uses in certain products and practices are starting to be phased out. However, much more remains to be done.

At this time, the region is uniquely positioned to be the first to implement a program to virtual eliminate mercury emissions from all man-made sources. Missing from the NEG/ECP’s 1998 Mercury Action Plan was the establishment of a target date to attain their virtual elimination goal for anthropogenic mercury releases.

However, last September, the New England Governors adopted a resolution on mercury (see Appendix A) reaffirming their commitment to the virtual elimination goal for mercury and laying out a series of additional action steps that must be taken to meet this goal (NEG, 2000).

Specifically, the governors agreed to the following:

- Support passage of coordinated mercury products legislation developed by the Northeast Waste Management Officials Association;
- Direct agency officials to coordinate efforts to warn the public about levels of mercury in both freshwater and ocean fish;
- Instruct respective agency officials to work at all levels of government towards the retirement of large quantities of mercury; and
- Direct staff to develop new timelines and targets towards attaining a goal of virtual elimination of anthropogenic mercury and to present these recommendations to the NEG/ECP at their next annual meeting in August.

**We call on the New England Governors to create timelines and targets to achieve the goal of virtual elimination by 2010.**
Methodology

Grading the States’ Progress Toward Zero Mercury

The New England Zero Mercury Campaign graded each New England state on its progress taken to date toward virtually eliminating mercury by 2010. Each state’s overall grade reflects an average of the individual grades awarded for each of the action steps in the ten-point Zero Mercury Action Plan. The individual action grades were awarded based on whether the state met five criteria developed for each of the ten Action Plan elements. These criteria describe specific actions that define the degree of progress in achieving that part of the Action Plan.

The five grading criteria for each of the ten Action Plan components are listed in Appendix B. The scale for issuing grades for each part of the Action Plan is as follows. As a general rule a letter grade of ‘A+’ was awarded if all five criteria were met, ‘A’ for achieving four of the five criteria, ‘B’ for three of five, ‘C’ for two of five, ‘D’ for one of five and ‘F’ if none of the criteria were met. Partial credit was given where partial results were demonstrated.

States were not graded on effort or intentions, but rather on solid progress made towards mercury elimination.
Zero Mercury Campaign Partners

New England Clean Water Fund
New England Clean Water Action
36 Bromfield Street #204
Boston, MA 02108
617-338-8131

Connecticut Clean Water Fund
Connecticut Clean Water Action
118 Oak Street
Hartford, CT 06106
860-728-1254

Connecticut Sierra Club
118 Oak Street
Hartford, CT 06106
860-525-2500

Health Care Without Harm
52 Washington Park
Newton, MA 02460
617-244-2891

Mercury Policy Project
1420 North Street
Montpelier, VT 05602
802-223-9000

Natural Resources Council of Maine
3 Wade Street
Augusta, ME 04330
207-622-3101

New Hampshire Clean Water Fund
New Hampshire Clean Water Action
163 Court Street
Portsmouth, NH 03801
603-430-9565

Rhode Island Clean Water Fund
Rhode Island Clean Water Action
372 Broadway
Providence, RI 02909
401-331-6972

Rhode Island Sierra Club
260 West Exchange Street
Providence, RI 02903
401-521-4734

National Wildlife Federation
58 State Street
Montpelier, VT 05602
802-229-0650

Toxics Action Center
198 Park Road
West Hartford, CT 06119
860-233-7623
References


WHEREAS, the Conference of New England Governors and Eastern Canadian Premiers (NEG/ECP) has worked aggressively to reduce the release of mercury into the environment through adoption and implementation of its 1998 Mercury Action Plan; and,

WHEREAS, the NEG/ECP is well on its way to meeting the 50% reduction goal outlined in the plan before the target date of 2003, and that a sustained, coordinated effort continues to be necessary to achieve the ultimate goal of “virtual elimination of anthropogenic mercury” releases into the environment, including the identification of other potential sources or mercury releases and their appropriate controls, and,

WHEREAS, the New England states each have freshwater fish consumption advisories and recent information suggests a parallel need for salt-water fish advisories for certain species of fish; and,

WHEREAS, at its Halifax meeting of July 18, 2000, the NEG/ECP (Resolution 25-11) adopted a statement of principles regarding effective management of mercury in products and in the wastestream and encouraged coordinated action; and,

WHEREAS, the New England states are uniquely suited to implementing certain aspects of the plan on a coordinated basis that strengthen and enhance the effectiveness of each state’s individual actions,

NOW, THEREFORE, BE IT RESOLVED that the New England Governors’ Conference, Inc. acknowledges the need for and benefits of coordinated legislation in the management of mercury containing products, and recommends that each state commit to working with their respective legislatures in the upcoming session in pursuit of those aspects of the Northeast Waste Management Official’s Association model legislation that are appropriate for each state and that will best advance a coordinated approach in support of our joint regional efforts, and

BE IT FURTHER RESOLVED that in an effort to continue toward the goal of “virtual elimination” of anthropogenic mercury as expeditiously as possible, the NEGC directs its Committee on the Environment and the New England members of the NEG/ECP Mercury Task Force to work with their Eastern Canadian counterparts to evaluate new reduction targets beyond the 50% reduction by 2003, and to report to the next meeting of the Conference of New England Governors and Eastern Canadian Premiers about specific targets and timelines to be achieved between now and 2010; and,

BE IT FURTHER RESOLVED that the New England Governors will instruct their respective responsible agencies to consult about fish consumption advisories to best coordinate their efforts to address both freshwater and salt-water species included in such advisories; and

BE IT FURTHER RESOLVED that consistent with the New England Governors’ Conference’s letter to President Clinton dated May 10, 2000, the NEGC directs its Committee on the Environment and the New England members of the NEG/ECP Mercury Task Force to make every effort to work constructively and efficiently with industry, EPA, ECOS and other state and federal agencies as needed to ensure that large quantities of stockpiled or recovered mercury are permanently retired in a manner that safely and securely avoids reintroduction of that mercury into the marketplace or, potentially, into the environment.

This resolution is effective immediately.

ADOPTION CERTIFIED BY THE NEW ENGLAND GOVERNORS’ CONFERENCE, INC. ON September 22, 2000.

Argeo Paul Cellucci
Governor of Massachusetts
Chairman
Appendix B

Zero Mercury Action Plan

This ten-point action plan should guide the efforts of the New England states to virtually eliminate mercury by 2010 as an interim goal on the path toward zero mercury. The New England Zero Mercury Campaign has graded each State’s progress on the basis of whether specific steps have been taken to reduce mercury in each of the ten action areas below.

1. **Remove, collect and recycle mercury products**

   **Disposal Ban.** Enact a disposal ban that prohibits mercury-added products from being discarded in solid waste intended for incineration or landfilling.

   **Source Separation.** Require that mercury-added products be separated from the waste stream when the product is removed from service.

   **Collection System.** Implement the infrastructure to collect and recycle mercury-added products from businesses, institutions and households.

   **Auto Scrapping.** Implement a system to ensure that mercury-added products are removed from automobiles prior to scrapping.

   **Take Back.** Implement Extended Producer Responsibility (EPR) policies to ensure that manufacturers take back mercury-added products after their useful life is over.

2. **Phase out the sale of mercury-added products in favor of safer available alternatives**

   **Thermometers.** Ban the sale of mercury fever thermometers.

   **Schools.** Ban the sale of bulk elemental mercury or mercury compounds to elementary and secondary schools.

   **Hospitals.** Secure a commitment from hospitals throughout the state to virtually eliminate mercury from health care facilities by 2003.

   **Thermostats.** Ban the sale of mercury-added thermostats.

   **Phase Out.** Establish a schedule to phase out the sale of most mercury-added products by 2010 and promote development of safer alternatives for the few remaining uses.

3. **Disclose the mercury content of all mercury containing products, in the interim**

   **Labeling.** Require the labeling of all mercury-added products.

   **Notification.** Require manufacturers of mercury-added products to notify the state regarding the amount of mercury and types of mercury products sold in the state.

   **Hospitals.** Require that manufacturers of mercury-containing products sold to health care facilities disclose the mercury content down to a level of 200 parts per trillion, upon request.

   **Database.** Establish a database of mercury-added products and their mercury content.
**Consumer Education.** Distribute materials on mercury-added products and their alternatives for individual and institutional consumers, including what to do about mercury spills.

4. **Prevent and reduce mercury releases from the use of dental amalgam**

**Filtration.** Require that dental offices install advanced filtration treatment units to remove mercury from wastewater prior to discharge into sewer systems.

**Disclosure.** Require that dentists provide information to patients about the potential advantages and disadvantages to oral health, overall human health and the environment from use of mercury in dental amalgam and from mercury-free alternatives.

**Insurance.** Require that dental insurers provide coverage to state employees for mercury-free composite fillings equivalent to that provided for dental amalgam containing mercury to facilitate source reduction.

**Alternatives.** Conduct an evaluation of alternatives to dental amalgam and track mercury use reduction efforts in the dental industry.

**Crematoria.** Require that crematoria reduce and prevent mercury air emissions.

5. **Dramatically reduce reliance on coal burning throughout New England**

**Utility Emissions.** Require in-state coal-burning power plants to reduce mercury air emissions by 90% by 2005 (compared to a 1997 baseline) and advocate that upwind out-of-state coal-fired plants meet the same standard.

**Utility Conversion.** Evaluate the feasibility of converting coal-fired power plants to natural gas and/or replacing the same amount of electrical generating capacity through increased efficiency and renewable energy sources that have minimal impact on the environment.

**Other Sectors.** Take action to reduce and eliminate coal burning in the industrial, commercial and residential sectors through increased efficiency, weatherization, fuel switching and burner upgrades.

**Siting/Expansion.** Establish a policy to prevent the siting of new coal-fired power plants or the expansion of existing coal-fired plants in the state.

**Phase Out.** Adopt a plan by 2005 to achieve an eventual phase out of all coal burning in the state through conversion to natural gas and/or replacement with renewable energy sources that have a minimal impact on the environment.

6. **Reduce mercury emissions and the burning of fuel oil for heat and electricity through conservation**

**Emission Standards.** Achieve partial control of mercury by requiring that all power plants meet modern emission reduction standards for smog, putting an end to grandfathering and emissions trading.

**Home Heating.** Take aggressive action to reduce the burning of home heating oil through home energy conservation programs, e.g. insulation and weatherization, and furnace/stove upgrades.

**Home Efficiency.** Take aggressive action to promote higher efficiency in home electricity use in lighting, heating, and appliances.

**Business Efficiency.** Take aggressive action to promote higher efficiency in business and institutional use of electricity in lighting, motors and other machines.

**Cleaner Energy.** Take aggressive action to convert oil-fired boilers to natural gas and to develop renewable sources of energy that have a minimal impact on the environment.
7. Use strict health-based standards to limit mercury releases and human exposure

**Exposure.** For a maximum daily exposure limit, use the EPA Reference Dose (RfD) of 0.1 micrograms of mercury per kilogram of bodyweight per day (ug/kg-bw/d).

**Fish Tissue.** As an action level for consumption advisories, use a health-based fish tissue standard, such as 0.2 milligrams of mercury per kilogram of fish (mg/kg) or 0.2 parts per million (ppm) adopted by Maine.

**Water Quality.** Adopt a health-based fish tissue action level as an enforceable water quality criterion, and adopt an ambient water quality criterion for mercury that protects human health such as 1.8 parts per trillion (ppt) as adopted by the Great Lakes region.

**Effluent Limits.** Require that all wastewater dischargers implement mercury pollution prevention plans that move them toward compliance with health-based water quality criteria.

**Sewage Sludge.** Require strict technology-based standards, in uniformity with neighboring states, for allowable levels of mercury in sewage sludge that can be land-applied, with the goal of not increasing mercury concentrations above existing ambient levels in soils.

8. Issue protective statewide health warnings to limit eating of mercury tainted fish

**Statewide Warning.** Issue a statewide advisory for all waterbodies that warns people to limit or avoid consumption of specified freshwater fish due to mercury contamination.

**Basis for Statewide Warning.** If more than 5% of the water bodies tested have a fish species with average mercury levels above the fish tissue action level then a statewide consumption advisory should be triggered for that species. (This ensures protection from mercury for at least 95% of the water bodies in the state).

**Seafood Warning.** Issue a seafood advisory that includes a warning to women of childbearing age and young children to avoid eating swordfish, shark, king mackerel, tilefish and tuna steaks, and to limit eating of canned tuna to one can per week for women of childbearing age and to one ounce per twenty pounds of body weight per week for young children.

**Basis for Seafood Warning.** Use the EPA Reference Dose as the basis for the seafood advisory for mercury.

**Monitoring.** Conduct yearly monitoring of water bodies and fish tissue for mercury contamination and communicate those results to the public.

9. Communicate health hazards to effectively reduce mercury exposure from eating fish

**Information.** Publish information on mercury hazards from fish consumption that includes safe eating guidelines and consumption advisories.

**Communication.** Take action to effectively communicate the health warnings for fish consumption through culturally sensitive outreach to women of childbearing age and their families, and to Native American, ethnic, immigrant and low income communities that may traditionally eat more fish in their diet.

**Health Care.** Conduct educational outreach to health care providers regarding mercury hazards, exposure to sensitive populations and fish consumption advisories.

**Restaurants.** Require that restaurants that sell seafood subject to the state’s consumption advisory to disclose the health warning regarding mercury to their patrons.

**Groceries.** Require that grocery stores and other retailers that sell fresh fish subject to the state’s consumption advisory to label and disclose the health warning regarding mercury.
10. Take action to promote federal policy decisions to reduce and retire mercury

**Power Plants.** Publicly support the adoption of regulations by U.S. EPA to significantly reduce mercury air emissions from power plants by no later than 2004, and related proposed federal legislation.

**Seafood.** Publicly support increased testing of commercial seafood for mercury by the Food and Drug Administration and FDA removal of high mercury fish shipments from commerce.

**Retirement.** Publicly support the long term storage and containment of government and industry stockpiles of elemental mercury and urge federal acceptance of surplus mercury from the chlor-alkali industry pending a permanent retirement solution, and related proposed federal legislation.

**Chlor-Alkali.** Publicly support the complete phase-out of the mercury-cell chlor-alkali production process in the United States by 2010 in favor of mercury-free alternatives.

**International.** Publicly support U.S. leadership in working with the United Nations to develop an international treaty to globally phase-out production, use and release of mercury, and related proposed federal legislation that promotes a global solution to mercury pollution.