

Leaders and Laggards: The 2002 Report Card on Mercury Elimination in New England



new england
zero
Mercury Campaign



New England Zero Mercury Campaign Partners

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

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Executive Summary

New England states have made mixed progress in implementing their goal of virtually eliminating mercury emissions in the past year. Connecticut, Maine and Rhode Island have taken the lead through strong action by their state legislatures. New Hampshire and Massachusetts lagged behind the other states by respectively defeating and stalling legislative attempts to phase out consumer products that contain mercury. Vermont had taken an early lead in mercury reduction legislation, but has not kept pace with the more proactive states recently.

This second year of the New England Zero Mercury Campaign's *Report Card on Mercury Elimination in New England* shows that the overall grade for the region moved from a "C-" in 2001 to a "C" in 2002. The first three sections of the report card reflect the progress made by some states in phasing out or banning products that contain mercury with the overall grade progressing from a "D+" to a "C+" across the region.

In each New England State, industry lobbyists for mercury product manufacturers used scare tactics and misleading information to attempt to thwart efforts to pass comprehensive mercury reduction legislation. To their credit, each of the New England states have introduced comprehensive legislation as proposed in the model legislation developed for the New England Governors by the Northeast Waste Management Officials Association (NEWMOA). None of the New England states has passed the model legislation in its entirety, but the state legislatures in Connecticut, Maine and Rhode Island have earned high marks for acting to protect public health and the environment.

Background

The New England Governors and Eastern Canadian Premiers (NEG/ECP) adopted the goal of "virtual elimination of the discharge of anthropogenic (human-caused) mercury into the environment" in 1998. In 2001, the NEG/ECP strengthened their commitment to mercury elimination by adopting an interim goal of reducing mercury emissions by 75% or greater by 2010. Unfortunately, the Governors

and Premiers have failed to set a timeline for achieving the virtual elimination of mercury.

The New England Zero Mercury Campaign (NEZMC) developed the Zero Mercury Action Plan to encourage the NEG/ECP to achieve the goal of virtual elimination by 2010. The plan contains recommendations and action steps to phase out mercury in consumer products, reduce dental mercury amalgam use and discharge, and reduce and eliminate emissions from coal and oil burning power plants—all by 2010.

Additionally, the plan calls upon the states to create and effectively disseminate health warnings and advisories to prevent people—and especially sensitive populations—from eating mercury-contaminated fish. **This Report Card grades each New England state on their progress toward achieving the goals of the Zero Mercury Action Plan.**

Zero Mercury Action Plan: Summary of Progress and Opposition

Consumer Products. Two reports released by the New England Zero Mercury Campaign (NEZMC) in 2002, *Mercury Product Pushers* and *Mercury Product Lobbyists Endanger Children's Health*, showed that mercury product lobbyists have undermined the New England Governors' coordinated program to achieve the goal of virtually eliminating human-caused mercury emissions from consumer products.

A few states have successfully fought off the intense pressure of the mercury industry lobbyists and won some partial victories. Connecticut and Rhode Island passed legislation (based on the NEWMOA model) to phase out mercury consumer products and to require their proper labeling and disposal. Maine passed landmark legislation to require auto manufacturers to take responsibility for collection and recycling of car light switches that contain mercury. Vermont has implemented product labeling and successfully fended off a four-year lawsuit by the National Electrical Manufacturers

Association which ended when the U.S. Supreme Court denied NEMA's request for a hearing.

The Massachusetts General Assembly banned the sale of mercury fever thermometers, but is delaying the passage of comprehensive NEWMOA model legislation. New Hampshire's legislature defeated its mercury products legislation this year.

Dental Amalgam. Efforts to reduce environmental emissions of dental mercury have just begun in New England. The state of Maine has studied the impact of dental mercury use, and both Maine and New Hampshire now require dentists to tell patients about the potential risks of mercury fillings. New Hampshire has passed first-in-the-nation legislation requiring dentists to remove dental mercury from wastewater. A new Rhode Island law requires insurance coverage of state employees for non-mercury fillings. Vermont has developed Best Management Practices (BMPs) for dental offices, which will go into effect this fall.

The American Dental Association (ADA) and state dental associations have blocked further progress in addressing the environmental impact of dental mercury. **While the ADA has refused, up until very recently, to encourage its members to assume responsibility for curtailing dental mercury pollution, on June 10, 2002 they issued a statement "encouraging use of amalgam separators."**

While some dentists have begun to voluntarily reduce dental mercury emissions, these efforts do not adequately address the hazard. The NEZMC's June 2002 report *Dentist the Menace?* calls for banning the disposal of dental mercury into wastewater or solid waste streams, encouraging the reduced use and release of dental mercury through voluntary incentives, and providing technical assistance and mandates for dentists to use best management practices to eliminate mercury releases to the environment.

Coal and Oil. Coal and oil burning remain the largest contributors of mercury emissions nationally, and many New England states have made no significant progress in this area. Of the three New England states where coal-burning plants are located (Massachusetts, Connecticut and New

Hampshire), only Massachusetts has enacted regulations to reduce mercury emissions. The Connecticut state legislature failed to act on legislation that would have reduced mercury emissions from coal burning this session. Maine passed legislation to improve energy conservation. Comprehensive actions to reduce and eliminate coal burning for energy generation and aggressive energy efficiency and conservation programs throughout the region will be essential to reduce mercury emissions from power plants, as will phasing out the practice of coal-burning entirely.

Exposure Reduction. All of the New England states have issued health advisories for women of childbearing age and young children to limit their consumption of fresh water fish and certain ocean fish due to high levels of mercury contamination. However, the states are not very effective in communicating those warnings to at-risk populations and the general public. **State health departments must take steps to more effectively educate consumers about the risks of eating mercury-contaminated fish.**

Conclusion. To meet the goal of virtual elimination of mercury emissions by 2010, each New England state must take a more proactive and effective approach to reduce mercury releases to air, water and land and prevent human exposure to mercury pollution. **Legislators, in particular, must have the courage to vote in favor of protecting children's health and the environment.** The NEZMC applauds the states that have made strides toward reducing mercury emissions and urges each of the New England states to adopt a plan to achieve all of the goals of the Zero Mercury Action Plan by 2010.

The NEZMC includes public interest groups from all six New England states working to reduce mercury pollution and prevent mercury exposure. Partners and the states where they are active include Clean Water Fund of New England (CT, MA, NH, RI), Natural Resources Council of Maine, Mercury Policy Project (national & VT), Health Care Without Harm (MA, & regional), Sierra Club (CT, RI), Toxics Action Center (CT) and the National Wildlife Federation (national, VT).

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 for 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.

Report Card on Mercury Elimination New England

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. The first grade below combines progress on the first three points of the 10-point Zero Mercury Action Plan. These points summarize the steps needed to disclose, phase out, and properly dispose of mercury added products. The second grade measures progress overall on implementing the Zero Mercury Action Plan.

STATE	PHASE OUT MERCURY PRODUCTS	OVERALL 2002 MERCURY ELIMINATION
Connecticut	B	C+
Maine	B+	B
Massachusetts	D+	C
New Hampshire	C-	C-
Rhode Island	B+	B-
Vermont	C+	C+
NEW ENGLAND	C+	C+

Grader: The New England Zero Mercury Campaign Partners

Report Card on Mercury Elimination

Connecticut

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	2001 GRADE	2002 GRADE
1. Remove & Recycle Mercury Products	D	C+
2. Phase Out the Sale of Mercury Products	F	B
3. Disclose the Mercury Content in Products	F	A
4. Reduce Mercury from Dental Amalgam	F	D
5. Dramatically Reduce Reliance on Coal	D	D
6. Reduce Burning of Fuel Oil	D+	D+
7. Use Strict Health-Based Standards	B	B
8. Issue Protective Health Warnings	B+	B-
9. Effectively Communicate Warnings	D-	D
10. Advocate Federal Action on Mercury	D	D-
OVERALL GRADE	D	C+

Progress Made Since 2001

- The state legislature passed the Mercury Reduction bill, which requires notification, phase-out, labeling and collection for many consumer products that contain mercury.
- The Health Department has issued health warnings for all fish from Connecticut waterways due to mercury contamination and warns that children under age 6 and pregnant or nursing women should not eat any freshwater fish from Connecticut more than once per month.

Improvement Needed

- The Health Department needs to more effectively communicate the health warnings to subsistence fishermen and populations with cultural ties to fishing and fish consumption.
- The health industry must make a comprehensive effort to rid mercury from their waste stream.
- The Connecticut state legislature must pass legislation to substantially reduce mercury emissions from coal-fired power plants.

Graders: Clean Water Action

Report Card on Mercury Elimination

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	2001 GRADE	2002 GRADE
1. Remove & Recycle Mercury Products	B+	A-
2. Phase Out the Sale of Mercury Products	B	B+
3. Disclose the Mercury Content in Products	B	B
4. Reduce Mercury from Dental Amalgam	C-	C
5. Dramatically Reduce Reliance on Coal	C	C
6. Reduce Burning of Fuel Oil	B	B+
7. Use Strict Health-Based Standards	B	B
8. Issue Protective Health Warnings	A-	A-
9. Effectively Communicate Warnings	B	B
10. Advocate Federal Action on Mercury	B	B+
OVERALL GRADE	B	B

Progress Made Since 2001

- Important legislation enacted on mercury products: (1) first-in-the-nation law that holds auto makers responsible for funding the collection of mercury auto switches from old cars, and (2) third-in-the-nation law to phase out the sale of mercury thermostats.
- The infrastructure for mercury product collection is being put in place throughout state.
- Legislation was passed to improve energy conservation.
- Momentum is building to reduce mercury releases from dental amalgam.
- Around 85 tons of elemental mercury from the HoltraChem chlor-alkali plant has been stored and kept out of commerce. Efforts are underway to place that mercury into longer-term storage to model needed federal policy on mercury retirement.

Improvement Needed

- On mercury products policy, Maine needs to enact legislation to phase-out most mercury products, require labeling for mercury lamps and expand producer responsibility for collection and recycling.
- Maine needs to require all dentists to install mercury separators to reduce mercury releases in wastewater.
- More work needs to be done to improve energy efficiency and conservation in order to reduce mercury emissions from energy production.

Graders: Natural Resources Council of Maine

Report Card on Mercury Elimination Massachusetts

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	2001 GRADE	2002 GRADE
1. Remove & Recycle Mercury Products	D	D+
2. Phase Out the Sale of Mercury Products	F	D+
3. Disclose the Mercury Content in Products	D	D
4. Reduce Mercury from Dental Amalgam	D+	D-
5. Dramatically Reduce Reliance on Coal	C-	C-
6. Reduce Burning of Fuel Oil	B+	B+
7. Use Strict Health-Based Standards	C	C
8. Issue Protective Health Warnings	A	A
9. Effectively Communicate Warnings	D+	C-
10. Advocate Federal Action on Mercury	C	C
OVERALL GRADE	C-	C

Progress Made Since 2001

- Hospitals have taken a comprehensive approach to reducing mercury use and releases across the state and have worked aggressively to achieve compliance with the MWRA's mercury in effluent water limit.
- The legislature passed a ban on the sale of mercury thermometers in the state, and the Executive Office of Environmental Affairs collected 95,000 fever thermometers during a 3-week exchange in January 2002.
- The Department of Environmental Protection is working aggressively to collect mercury from schools, dentists' offices, and communities and to educate the public about the dangers of mercury and the need for proper disposal.

Improvement Needed

- The legislature has delayed passing H-4717, An Act Relating to Mercury Reduction and Education, to phase out the use of mercury products and keep them out of the waste stream.
- Though a voluntary memorandum of understanding between the Executive Office of Environmental Affairs and the Massachusetts Dental Society suggesting that dentists install filtration units was passed in winter 2001, little or no follow-up has been done since and few units have been installed.
- Massachusetts will need to phase out coal burning in the state and switch to natural gas and renewable clean energy, and dispose of coal ash and incinerator ash safely in hazardous waste landfills in the interim.
- Point-of-sale warnings about mercury in fish are needed to prevent many people from unknowingly eating mercury-contaminated fish.

Graders: Clean Water Action and Health Care Without Harm

Report Card on Mercury Elimination

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.

MERCURY ACTION STEP	2001 GRADE	2002 GRADE
1. Remove & Recycle Mercury Products	D	D
2. Phase Out the Sale of Mercury Products	C+	C+
3. Disclose the Mercury Content in Products	D+	D+
4. Reduce Mercury from Dental Amalgam	D-	B-
5. Dramatically Reduce Reliance on Coal	F	D-
6. Reduce Burning of Fuel Oil	D+	D+
7. Use Strict Health-Based Standards	C	C
8. Issue Protective Health Warnings	B-	B
9. Effectively Communicate Warnings	D-	C+
10. Advocate Federal Action on Mercury	C	D+
OVERALL GRADE	D+	C-

Progress Made Since 2001

- The state legislature passed dental amalgam legislation which requires patient notification and appropriate disposal of dental mercury.
- The NH Health Department has improved materials and efforts for public outreach on notifying the public about the fish consumption advisory to avoid eating mercury-contaminated fish.
- The state legislature has issued a standard to limit mercury emissions from the Claremont incinerator.

Improvement Needed

- Legislation to phase-out and require labeling for mercury products was defeated in the state legislature.
- The Department of Environmental Services and the state legislature must revisit and strengthen the coal and oil power plant clean up law to ensure mercury reduction and prevent mercury credits trading.
- Point-of-sale warnings about mercury in fish, especially seafood, are needed to prevent many people from unknowingly eating mercury-contaminated fish.
- The state legislature and state agencies must take action to phase out coal burning in the state and develop renewable clean energy and promote energy conservation.
- The New Hampshire Congressional delegation has neglected to support mercury reduction and retirement initiatives in Congress.

Graders: Clean Water Action

Report Card on Mercury Elimination Rhode Island

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	2001 GRADE	2002 GRADE
1. Remove & Recycle Mercury Products	D	B
2. Phase Out the Sale of Mercury Products	D-	A-
3. Disclose the Mercury Content in Products	F	A-
4. Reduce Mercury from Dental Amalgam	F	D
5. Dramatically Reduce Reliance on Coal	B	B
6. Reduce Burning of Fuel Oil	B+	A
7. Use Strict Health-Based Standards	F	F
8. Issue Protective Health Warnings	D-	A-
9. Effectively Communicate Warnings	D-	B
10. Advocate Federal Action on Mercury	C	C
OVERALL GRADE	D	B-

Progress Made Since 2001

- The RI General Assembly passed a first-in-the-nation Mercury Reduction bill that requires notification, phase-out, labeling and collection for many consumer products that contain mercury, including thermometers and thermostats.
- The RI Health Department issued an advisory warning children under age 6 and pregnant or nursing women not to eat any freshwater fish from Rhode Island due to mercury contamination and communicated the warning to women and medical professionals.
- The Rhode Island Dental Association initiated a survey of dental mercury use and plans workshops with the Narragansett Bay Commission to instruct Rhode Island dentists on best practices to reduce mercury emissions.
- The Department of Environmental Management collected 700 pounds of mercury in the first two months of the statewide program arranged for the collection and proper disposal of mercury.

Improvement Needed

- The General Assembly failed to address legislation introduced this year that would require auto manufacturers to take responsibility for the collection and disposal of mercury in auto parts.
- Point-of-sale warnings about mercury in fish are needed to prevent many people from unknowingly eating mercury-contaminated fish.
- The state, Narragansett Bay Commission and the Rhode Island Dental Association must develop a complete program of enforceable requirements and voluntary incentives for dentists to change their practices and prevent dental mercury emissions to the environment.

Graders: Clean Water Action, Sierra Club RI Chapter

Report Card on Mercury Elimination

Vermont

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	2001 GRADE	2002 GRADE
1. Remove & Recycle Mercury Products	B	B
2. Phase Out the Sale of Mercury Products	D	D
3. Disclose the Mercury Content in Products	C	B-
4. Reduce Mercury from Dental Amalgam	D	C-
5. Dramatically Reduce Reliance on Coal	C	B-
6. Reduce Burning of Fuel Oil	B	B
7. Use Strict Health-Based Standards	D	D
8. Issue Protective Health Warnings	B	B
9. Effectively Communicate Warnings	C-	C
10. Advocate Federal Action on Mercury	B	B
OVERALL GRADE	C	C+

Progress Made Since 2001

- Vermont's Executive Branch staff have worked to implement the provisions of Vermont's 1998 Mercury Reduction Act. Staff at the Department of Environmental Conservation have collected information about mercury added products sold in the state, and have shared this information with all northeast states.
- The DEC has initiated a program to remove all mercury switches from state fleet cars, worked to educate the general public about the risks associated with mercury exposure, created a mercury switch removal training program for salvage yards, and developed Best Management Practices for dental offices.
- Executive branch officials, including the Governor, his staff and Agency of Natural Resources personnel have strongly advocated for passage of mercury legislation modeled on the NEWMOA framework.
- The Attorney General has successfully fended off a four-year lawsuit by the National Electrical Manufacturers Association seeking to strike down the labeling requirement for lamps. The U.S. Supreme Court's refusal to grant NEMA's request for a hearing in June 2002 effectively ended the case.

Improvement Needed

- Vermont legislators did not pass S. 91 to phase out and ban the sale of some mercury added products.
- Regulators have not tightened water quality standards to adequately protective levels, and as a result effluent standards remain lax.
- Though best management practices have been established for dental offices, compliance is still limited, and may require mandatory regulations to increase.

Graders: Mercury Policy Project, Vermont Public Interest Research Group, National Wildlife Federation

Mercury in New England

Harm, Sources & History

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 1970s indicate that mercury is pervasive at levels that significantly exceed acceptable values in certain fish species and water bodies.

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 or a 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.

Coal-fired power plants are the single largest source of mercury pollution in the U.S. and they contribute 13% of New England's regional emissions. Mercury is released from the coal during the combustion process.

Other 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 virtually eliminate mercury emissions from all human-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, in September 2000, 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 (NEGC, 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.

In August of 2001, the NEG/ECP increased its commitment “to identify and implement actions to achieve an overall 75%, or greater, regional reduction in anthropogenic mercury releases to the environment from regional sources by or before 2010, and to re-evaluate this regional goal in 2005 to allow for new data to be taken into account.” (NEG/ECP, 2001) This timeline still does not go far enough.

We call on the New England Governors to create timelines and targets to achieve the complete goal of virtual elimination of mercury use, release and exposure by 2010.

Methodology

Grading the States' Progress Toward Zero Mercury

The NEZMC 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.

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Appendix A

A Resolution of the New England Governors' Conference, Inc. Regarding Model Mercury Legislation

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 waste stream 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 Officials' 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 NEG/ECP 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 NEG/ECP 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

The New England Governors and the Eastern Canadian Premiers 2001 Conference Excerpt of Summary Regarding Mercury

The Conference reported that substantial progress has been achieved in mercury emissions reductions in the region in recent years, and increased its commitment to further reductions - 75% or greater by 2010, based on the 1998 baseline.

The Conference's Mercury Task Force currently estimates that regional mercury emissions will be reduced between 50% and 55% by 2003, exceeding the interim reduction goal set in 1998. Major reductions from the region's biggest sources have been achieved, in many cases ahead of schedule. Over the past year, municipal waste combustor facilities across the region have installed new state-of-the-art pollution control equipment. Mercury emissions from medical waste incinerators have also been substantially reduced. Other regional sources of mercury releases are also being addressed, including utilities and wastewater discharges and releases attributable to broken and disposed mercury-added products.

In Resolution 26-3 adopted at Westbrook, the Conference directs its state and provincial agencies “to identify and implement actions to achieve an overall 75%, or greater, regional reduction in anthropogenic mercury releases to the environment from regional sources by or before 2010, and to re-evaluate this regional goal in 2005 to allow for new data to be taken into account.”

The Conference also directed its Committee to complete a report on mercury monitoring in the region; complete an update of multi-pollutant control options for utilities; continue to advance prevention and education initiatives; and advocate for long-term mercury “retirement” strategies.

Governor Jane Swift said: “The reductions we’ve accomplished are significant and getting to the 75 percent level will provide [even more] health benefits for pregnant women and young children.”

Source: www.newenglandgovernors.org/negecp2001.html

Appendix C

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/kgbw/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 water bodies 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 child bearing 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.

Key

Conference of New England Governors and Eastern Canadian Premiers

The Conference of New England Governors and Eastern Canadian Premiers (NEG/ECP) is composed of the governors of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont, and the premiers of New Brunswick, Newfoundland and Labrador, Nova Scotia, Prince Edward Island and Quebec. It was established in 1973 as a tool for sharing ideas and advancing mutual interests of the states and provinces and encouraging cooperation with the private sector.

For more information on resolutions passed by the NEG/ECP or the Mercury Action Plan Regional Progress Report, see www.cmp.ca/neg.htm.

Northeast Waste Management Officials' Association (NEWMOA)

The Northeast Waste Management Officials' Association (NEWMOA) is a nonprofit, nonpartisan interstate association that has a membership composed of the hazardous waste, solid waste, waste site cleanup and pollution prevention program directors for the environmental agencies in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. NEWMOA was established by the Governors of the New England states as an official regional organization to coordinate interstate hazardous and solid waste, and pollution prevention activities and support state waste programs, and was formally recognized by the U.S. Environmental Protection Agency (EPA) in 1986. NEWMOA's mission is to help states articulate, promote and implement economically sound regional programs for the enhancement of environmental protection.

Information available at www.newmoa.org includes:

- Mercury Education and Reduction Model Legislation
- Summary and Rationale for the Major Provisions in the Mercury Education and Reduction Model Legislation
- A Mercury Reduction Programs Database: a searchable database that includes descriptions of mercury reduction programs underway around the U.S.

New England Zero Mercury Campaign

The New England Zero Mercury Campaign includes public interest organizations in all six states working to eliminate mercury emissions in the region by 2010 and to promote protective and effective health warnings to prevent mercury exposure. Partners and the states they are active in include Clean Water Fund of New England (CT, MA, NH, RI), Natural Resources Council of Maine (ME), Mercury Policy Project (VT, nationwide, internationally), Health Care Without Harm (MA, region wide), Sierra Club (CT, RI), Toxics Action Center (CT), and the National Wildlife Federation (VT, nationwide).

Previous reports available at www.mercurypolicy.org include:

- A Failure to Eliminate: A Report Card on Mercury Elimination in New England
- Mercury Product Pushers
- Health Warning: Mercury Product Lobbyists Endanger Children's Health