

New England Governors & Eastern Canadian Premiers' Regional Mercury Report Card, 1999

Issued by a coalition of citizen environmental organizations
from New England and Eastern Canada
Produced by Clean Air Network

State/Province	Grade	Summary
Connecticut	C	While labeling legislation was introduced, the final proposal was weakened considerably.
Maine	B-	Much progress has been made in terms of improving outreach to sensitive populations, however mercury legislation was delayed for another year.
Massachusetts	B-	Strong progress on a number of fronts. Future focus needed on reducing mercury emissions from utility boilers, more comprehensive public education regarding mercury in commercial fish, passage of Petersen mercury bill.
New Hampshire	C	State's key failing is their inability to convene the "NH Mercury Task Force" of stakeholders to advise on various parts of their "Mercury Reduction Strategy" issued last October.
Rhode Island	C-	Rhode Island is the only state in New England that did not introduce mercury legislation. It also has failed to develop protective fish advisories for sensitive populations.
Vermont	A-	Vermont has taken the lead in the region to comprehensively address mercury in products, and to improve public outreach to sensitive populations
New Brunswick	D+	Meetings and discussions related to the Mercury Action Plan are taking place, but no specific initiatives are planned above and beyond the NEG/ECP process.
Newfoundland and Laborador	D+	Limited efforts have been made to test local sources of mercury, and to effectively warn the public about the risks of eating mercury-contaminated fish.
Nova Scotia	C-	Government officials are aware of the commitments and are discussing the issues, but no implementation has taken place. Progress being made to address dental mercury use.
Prince Edward Island	F	The largest point source of mercury in the environment is in Charlottetown's incinerator. Overall, PEI has made no major progress.
Regional Task Force	B-	They've taken important steps to identify emission reduction options for coal-fired power plants, and have gotten states to adopt the regional standards for incinerators. Where they've fallen short is in warning the public about the risks of eating both freshwater and marine fish.

Criteria for Grade

Emission Reductions

Municipal Waste Incinerators

- adopt emission standard: .028mg/dscm goal
- annual monitoring and stack testing

Sewage Sludge Incinerators

- evaluate .1 mg/dscm emission limit
- adopt source reduction and pretreatment measures
- annual monitoring and stack testing

Medical Waste Incinerators

- adopt emission standard: .055 mg/dscm
- annual monitoring and stack testing
- require facilities to adopt source reduction and separation programs

Utility Boilers

- identify emission control options by 1999 (Regional Task Force)

Industrial Sources

- identify emission limits and control requirements for specific sectors (Regional Task Force)

Area Sources

- develop targets and timelines for maximum achievable reductions in Hg emissions emphasizing source reduction, separation, recycling (for labs, dental clinics, paint use, crematories, landfills)

Source Reduction, Separation, Recycling

- reduce/eliminate the use of Hg in medical and consumer products to the extent feasible
- identify/implement source reduction programs; develop model legislation (labeling & manufacturer take-back programs)
- expand state and provincial P2 assistance to clinics, hospitals, labs, etc. to reduce use of Hg/better manage waste
- evaluate/increase effectiveness of Hg collection recycling programs
- develop additional programs through public/private partnerships
- establish collection programs for Hg used by dentists, water suppliers, other identified users

Outreach/Education

- develop and implement sensitive populations outreach strategy
- develop guidance to address accidental exposures
- develop consistent advisories for shared water bodies
- develop brochures on Hg products/alternatives
- develop education programs for large users/waste generators
- develop guide to state/provincial Hg contacts

Research, Analysis, Monitoring

- establish bi-national research workgroup
- develop/refine mercury inventories
- promote the development of Hg dispersion model/atmospheric transport monitoring network
- develop consistent protocols for fish/wildlife tissue sampling,
- develop comprehensive database

Criteria for Grade	Comments:
Municipal Waste Incinerators	CT is in the final stages of adopting .028 standard, but it may not be implemented for 3 years.
Sewage Sludge Incinerator	Legislature proposed to require annual tests.
Medical Waste Incinerator	The state has drafted plans and regulations for .055 standard and will study feasibility of meeting .028 standard; no timeline for adoption yet. Sponsored a meeting in the spring 1999 to study this issue.
Utility Boilers	
Industrial Sources	
Area Sources	
Source Reduction, Separation, Recycling	Legislation was weakened to permit DEP to write mercury labeling requirements only after the NEG/ECP agree on a label design. This bill also allows the DEP commissioner to decide which products will require labeling. In addition, there's a weak provision for fluorescent lamp manufacturers to provide mercury content information to distributors but not to retailers or consumers.
Outreach/Education	The state has developed a general pamphlet for the public regarding the consumption of freshwater fish, but not ocean fish. It also has developed a "Health Effects Fact Sheet" on accidental exposure to mercury in the home.
Research, Analysis, Monitoring	The state has: conducted fish tissue monitoring for the past three years, and reports annually statewide mercury monitoring for 8 sites; developed a regional scale air quality model; and also is researching mercury concentrations in sediments and wetlands.

Criteria for Grade

Comments:

Emission Reductions	Municipal Waste Incinerators	Maine has adopted a standard of .028 mg/dscm. The four large municipal waste incinerators in the state are required to stack test and monitor annually.
	Sewage Sludge Incinerator	N/A. Maine applies sludge to land and does not incinerate. (See Source Reduction Section, below.)
	Medical Waste Incinerator	N/A. There are no facilities in Maine that are subject to the incinerator rules because of size. Waste is being shipped to Massachusetts for presumed incineration. (See Source Reduction Section, below.)
	Area Sources	There has been no direct work targeted at specific mercury-using area sources in Maine. However, recent legislation, LD 2038, will require industrial and municipal facilities that have NPDES permits in Maine to develop pollution prevention plans to reduce their mercury wastewater discharges. Particularly in the case of municipal treatment plants, this will involve operators looking at inputs to their systems (e.g., hospitals and dentist offices). This process may lead to not only reductions in water discharges of mercury, but also to reduction in use of medical and other equipment containing mercury. This in turn would reduce disposal to landfills and incinerators. However, there was strong industrial and municipal resistance to this legislation, and it is still unclear how successful the legislation will be. In addition, if enacted, LD 2084 (see below) will require DEP in consultation with dentists to develop a plan for reducing mercury pollution from dental procedures such that Dentists will have to employ mandatory source reduction.
Source Reduction, Separation, Recycling	LD. 2084, An Act to Reduce the Release of Mercury into the Environment from Consumer Products, was “approved” for carry over. The weaker mercury-regulating bill, LD 1924, An Act to Reduce Mercury in Products, was killed by the Natural Resources Committee on May 24 th . No manufacture take-back programs have been established in Maine or have been included in LD 2084 for review next year. The earliest that this could happen would be 2001. POTWs and industrial facilities will be required to develop pollution prevention plans under mercury discharge legislation. Disposal of fluorescent bulbs in landfills and incinerators is prohibited, and it is state policy to recycle them. However, not much is being done in terms of enforcement, supervision or technical assistance.	
Outreach/Education	The statewide mercury consumption advisory is more stringent for women of childbearing age and small children, but only covers freshwater fish and not ocean fish. The state is performing a survey of women’s fish-eating habits and asking for hair samples to see if there is a correlation between fish consumption and mercury contamination (being conducted with Wisconsin and other states). In addition, the Bureau of Health plans to develop two brochures on mercury aimed primarily at pregnant women. One brochure will be for patients in doctors’ offices. The other will target women with small children who have someone in their household with a fishing license by cross referencing the Department of Inland Fisheries and Wildlife’s database with birth records.	
Research, Analysis, Monitoring	Maine has developed a preliminary mercury inventory as part of two reports to the Natural Resources Committee. These reports represent substantial effort and are of relatively high quality given the limits on data. However, modeling of mercury deposition and loading in Maine is in its infancy, as it is nationally. Maine participates in the mercury deposition network research. Maine’s fish sampling is, relatively speaking, consistent and widespread. Maine also has extensive data on eagles. Loons are also a major subject of research, and a kingfisher study is being started	

Criteria for Grade

Comments:

Emission Reductions	Municipal Waste Incinerators	The MA Department of Environmental Protection (DEP) has adopted a mercury emission standard of .028mg/dscm for municipal waste incinerators. They have also adopted annual as well as quarterly inlet & stack monitoring.
	Sewage Sludge Incinerator	The DEP is in the process of evaluating the proposed emission standard and pre-treatment measures for all sewage releases, including sewage sludge incineration. They have not begun the rulemaking process but DEP staff have committed to these goals in informal meetings.
	Medical Waste Incinerator	As recently as 1997, there were 47 medical waste incinerators (MWI) operating in MA. Following a round of DEP site inspections, the majority were closed - 10 remain in operation. In public meetings, DEP staff have committed to at least a .055mg/dscm emission standard (possibly lower) as well as aggressive stack testing for mercury and publicly accessible emissions data. However, the draft regulations have yet to be publicly released. DEP estimates that only 3 MWIs will remain in operation once the tighter standards are implemented.
	Utility and Industrial Boilers	
	Area Sources	The DEP has developed waste audit protocols for hospitals which maximize pollution prevention goals. DEP has also organized a statewide dental collection program designed to recover elemental mercury. DEP is also working collaboratively with NEWMOA and EPA on a best management practices/inventorying proposal designed to reduce mercury materials at federal facilities such as laboratories.
Source Reduction, Separation, Recycling	DEP included in their new regulations for municipal waste incinerators a requirement that operators create and implement plans over time to segregate mercury, toxins and toxic precursors from trash. DEP also included an arbitrary cost cap of \$.50/ton which limits both the cost and potential effectiveness of the program. DEP has also aggressively supported H.3125, An Act Regulating Products Containing Mercury filed by House Natural Resources Committee Chair Rep. Douglas Petersen. The bill, which calls for manufacturer take-back of	
Outreach/Education	The Office of Technical Assistance has organized a series of successful pollution prevention conferences for hospitals in 1997. DEP has also developed an education program and brochures regarding mercury from fluorescent lamps and dental fillings. DEP has also collaborated with the MWRA in their pollution prevention outreach to dental offices and labs.	
Research, Analysis, Monitoring	MA DEP has participated in regional effort to better assess and model mercury deposition throughout the region.	

Criteria for Grade

Comments:

Emission Reductions	Municipal Waste Incinerators	Legislation has been introduced to achieve .028 standard for larger incinerators by Jan. 1, 2001. Bill is bogged down in House finance committee over financial assistance scheme for affected communities. DES Commissioner is given discretion to develop rules on monitoring and stack testing schedules and procedures, though annual stack tests are expected to be included.
	Sewage Sludge Incinerator	DES looking into feasibility of .01 emission limit. Previous stack test indicates this is possible, though new test, as promised in state Reduction Strategy by June 30, has yet to be done.
	Medical Waste Incinerator	DES has adopted rules with .055 standard to take effect in June, 2000 with annual stack testing required. Current legislation calls for evaluating feasibility of reducing limit to .028 or lower. Separate legislation has passed both houses setting up a study committee to investigate and report on reduction methods for medical waste by November 1. 1999
	Utility Boilers	NH's Mercury Task Force is supposed to investigate feasibility of achieving 75% reduction from power plants and fuel switching to gas with all sources, although the task force has yet to be formed.
	Industrial Sources	
	Area Sources	
Source Reduction, Separation, Recycling		Legislation has passed both houses setting up a study committee to investigate and report on reduction, separation, and recycling methods for the waste stream by November 1. 1999. State Reduction Strategy calls for steps to meet these goals over next year, though implementation has been uneven due to regulatory delays and need for direction from legislative study committee.
Outreach/Education		NH received poor rating (1 out of 5) on outreach in US PIRG's report on Fishing Advisories. The state warns about the consumption of freshwater fish, but not ocean fish. State agencies claim to be doing more and state Reduction Strategy calls for more outreach as of beginning of this year, but there is scant evidence that this is being carried out, since as of yet undesignated stakeholder Task Force is charged with devising outreach strategy.
Research, Analysis, Monitoring		NH has developed a fairly current and comprehensive estimated emissions inventory. It recently installed new deposition monitoring station in lakes region. Fish monitoring in recent years accomplished by volunteers randomly submitting samples.

Criteria for Grade

Comments:

Emission Reductions	Municipal Waste Incinerators	State law prohibits siting of MWI's.
	Sewage Sludge Incinerator	Nothing has been done to address this source.
	Medical Waste Incinerator	The state held a workshop in April, and DEM has drafted regulations to adopt the .055 standard, and to require hospitals to develop waste management plans (for source separation and reduction). They're also conducting waste audits for hospitals, with a goal to get hospitals mercury-free by 2003. They also have annual stack testing and monitoring requirements.
	Utility Boilers	
	Industrial Sources	
	Area Sources	Some outreach efforts are underway by wastewater treatment municipal plants to dentists to reduce mercury.
Source Reduction, Separation, Recycling		Nothing is happening at the state owned landfilled run by RI Resource Recovery Corp. No legislation has been proposed; they're waiting for the regional model regional legislation to be proposed. They have pamphlets for large generators promoting lamp recycling.
Outreach/Education		They've issued a statewide advisory for the general public for all lakes, rivers, and streams, but there is not a more restrictive advisory for sensitive populations. Also, Dept of Health has been conducting fish tissue sampling but hasn't released the results yet.
Research, Analysis, Monitoring		

Criteria for Grade	Comments:
Municipal Waste Incinerators	N/A. The state does send some of its waste to out-of-state MWI's, but state law requires mercury products/devices to be source separated prior to disposal.
Sewage Sludge Incinerator	N/A (although VT does send some of its sludge to NY to be incinerated).
Medical Waste Incinerator	Shut down existing medical waste incinerator; will go to .055 standard if facility is proposed (will make part of permit condition). Most hospitals in the state have reduced mercury disposal as well as purchase of mercury-containing products.
Utility Boilers	
Industrial Sources	
Area Sources	The state has a funded program to clean mercury out of schools and is in the process of developing a clean out program for dairy manometers. They are also targetting labs, paint use, and landfills
Source Reduction, Separation, Recycling	VT has taken a leadership role in the region in passing legislation to raise awareness about mercury pollution and to reduce disposal of mercury products through a landfill ban. The state has adopted an extensive mercury-in-products labeling, recycling and pollution prevention program. One weakness is that a manufacturer take-back program was not instituted. Also, the program does not include collection efforts for dentists.
Outreach/Education	The state has a committee to make annual recommendations to the Legislature and executive branch on ways to reduce mercury pollution and exposures. A website has been developed to better educate the public on the health threats of mercury and activities to reduce exposure and releases; developing a brochure targeting pregnant women and nursing mothers on the risks of eating mercury-contaminated fish. In the near future, the state is planning to conduct a public outreach effort on mercury.
Research, Analysis, Monitoring	Vermont has the longest running mercury deposition site in North America, and receives updates on a regular basis regarding mercury deposition rates. The state is involved in an ongoing fish tissue sampling program and updates the public annually.

Criteria for Grade

Comments:

Emission Reductions	Municipal Waste Incinerators	N/A.
	Sewage Sludge Incinerator	N/A.
	Medical Waste Incinerator	Approvals not yet amended; stack testing will be required this summer; emissions inventory not updated.
	Utility Boilers	Involved in regional efforts to address this topic.
	Industrial Sources	Stack testing will be required this summer. The chlor-alkali plant in Belledune (the only one left in Canada!) has been issued an approval allowing operation for another three years. The limits specified on the permit set annual average air emission levels at 30% lower than the Federal limits and at 10% of the Federal limits for water (based on a monthly average level). The Federal government will carry out monitoring around the site.
	Area Sources	Awaiting further direction from the following initiatives: provincial participation on Mercury Task Force; Canada Wide Standards; Environment Canada take-back initiatives.
Source Reduction, Separation, Recycling	Awaiting direction from Canada-wide standards process and the federal government. It is believed that there is no need for labeling legislation in the province or take-back programs. They are awaiting direction from the CWS process and NEG/ECP. However, a dental MOU is being considered.	
Outreach/Education	No specific initiatives. While the task force will be addressing these issues, NB will not be developing any specific initiatives independent of this process. Awaiting direction by Mercury Task Force and CCME. Under CWS process, there may be an awareness campaign for schools to decrease mercury. There are no specific education programmes aimed at the public, sport fishers, native populations or students planned for this year.	
Research, Analysis, Monitoring	Stack tests are planned stack tests for this summer. Participation in the CWS emissions inventory. Ambient water sampling will include total mercury this year (but not organic vs inorganic vs elemental). Some monitoring programs will be developed for provincial lakes; lake monitoring was last carried out in 1994. NB DOE will revisit those lakes and may sample additional sites throughout the province.	

Criteria for Grade

Comments:

Emission Reductions	Municipal Waste Incinerators	Newfoundland has no large incinerators; it does have “teepee incinerators” however no emissions testing has been done. Standards are in “committee”.
	Sewage Sludge Incinerator	N/A
	Medical Waste Incinerator	All medical waste incinerators being shut down, wastes to be shipped out of province. Waste management issue is being handled outside of this agreement.
	Utility Boilers	
	Industrial Sources	Some testing has been done on oil refinery, and mercury was not found to be significant; no testing has been done on the Seal Cove thermal plant.
	Area Sources	In committee—to be reviewed.
Source Reduction, Separation, Recycling		In committee—to be reviewed. Being handled by NEG/ECP Task Force. NFLD has no rep’s. on these groups.
Outreach/Education		Stateside only—separate working group (anything being done?)
Research, Analysis, Monitoring		same as above

Criteria for Grade

Comments:

Emission Reductions	Municipal Waste Incinerators	
	Sewage Sludge Incinerator	No sewage sludge incinerators in NS
	Medical Waste Incinerator	One only, Sydney NS - already in compliance emissions .045 mg/dscm tested in 1997 and will be retested this summer. They also do a monthly supplies audit.
	Utility Boilers	Stack testing planned for June. Federal government manages national inventory, therefore effort is not carried out by provinces. Also, there are no plans to mothball the coal-fired generators at this time.
	Industrial Sources	No specific areas where NS is beyond the meeting stage. Nova Scotia with its leadership position on recycling could easily have developed initiatives by now regarding mercury in fluorescent light tubes or other small users.
	Area Sources	
Source Reduction, Separation, Recycling		No program in place to deal with mercury in fluorescent light tubes.
Outreach/Education		Will follow direction of task force. Provincial Dept. of Education has included section in school lab manuals about mercury. Hoping to add issue of mercury in the publication of the Gulf of Maine Times. An MOU is due to be signed between the Dept of Environment and the dental associations to develop enhanced collection systems and a service to collect the mercury. They are also developing an education campaign and are working on identifying alternatives.
Research, Analysis, Monitoring		

Criteria for Grade	Comments:
Emission Reductions Municipal Waste Incinerators	No standards adopted; plant falls below size restriction so is missed by the guidelines. Have done one test for mercury in Sept 1998 and in 1985. Annual monitoring and stack testing; nothing legislated.
Sewage Sludge Incinerator	N/A.
Medical Waste Incinerator	Facility is largest source of mercury emissions in Atlantic Canada. No standards adopted; plant falls below size restriction so is missed by the guidelines. No annual monitoring. Will test in the next year or two. Not required to do source separation or reduction. There is some thought that if results show pollution controls are necessary, the facility will close and ship waste to NB.
Utility Boilers	
Industrial Sources	
Area Sources	No major progress. Limited inventory has been developed.
Source Reduction, Separation, Recycling	No major progress. Currently evaluating where in the waste stream mercury will be an issue. Will not participate in bi-national working groups, feels province is too small to be concerned.
Outreach/Education	No major progress.
Research, Analysis, Monitoring	Will not participate in bi-national working groups. Province may or may not be concerned due to small size, but they feel that larger provinces and states have more money to conduct research.