

**Clean Water Act Section 319(g) Mercury Conference:
Mercury Summary for Northeast States
June 16, 2010**

Introduction:

The enclosed materials provide an overview of the aggressive actions that the New England States and New York have taken to reduce releases of mercury pollution to the air, water and land. This package is intended to provide background for the EPA and state participants of the upcoming 319(g) mercury management Conference (June 22nd and 23rd 2010). This package will also be submitted to EPA's official record. The background documents enclosed are:

- 1) Summary of Northeast States Mercury Product Efforts
- 2) Summary of Northeast States Emission Reduction and Other Efforts to Address Mercury Pollution
- 3) State-by-State Narrative Summaries of Mercury Pollution Reduction Efforts

Overview:

The efforts of the northeast states have been implemented under the New England Governors and Eastern Canadian Premiers (NEG-ECP) Mercury Action Plan (MAP) adopted in 1998, and also under specific state initiatives. The northeast states have adopted and implemented aggressive mercury emission control regulations for municipal solid waste incinerators, medical waste incinerators, and coal-fired electric generating units, and regulations or legislation requiring dental offices to use mercury waste water pollution controls. Each of the states has adopted comprehensive mercury legislation and regulations requiring mercury-added products to be labeled; phasing-out many unnecessary uses of mercury in products; requiring notification of sales of mercury-added products; and enhancing recycling and outreach efforts. The states have also conducted extensive outreach and education to the public and consumers about mercury; conducted mercury clean-outs at many schools, and established long term and short term strategic environmental monitoring efforts to assess progress.

Results:

Through these efforts, mercury emissions in New England and the Eastern Canadian Provinces were reduced by an estimated 55 percent between the mid 1990s and 2003. Based on preliminary data in the region, overall emission reductions in the New England states through 2010 will likely exceed 80 percent. Because of lag-times in emissions data collection and reporting, these are preliminary estimates. More robust assessments will be completed in 2011. New York State has adopted similar regulations addressing major sources, and has also achieved substantial reductions in mercury emissions. Deposition modeling predicts that mercury deposition in the northeast, in particular in a previously identified mercury hotspot in northeast Massachusetts and southeast New Hampshire, decreased significantly over this period. Results from monitoring in Massachusetts also indicate that mercury levels in freshwater game fish decreased about 30 percent from 1999 to present in the Massachusetts hotspot area and from 13 to 15 percent in the rest of Massachusetts. Although fish mercury levels from most water bodies remain too high for them to be safely consumed, these results indicate that in-region efforts are reducing mercury pollution and contaminant levels in fish, thus reducing risks to our children, our environment, and our economies. The monitoring results also confirm that mercury pollution continues to be a serious environmental problem and emphasize the continuing need for further mercury pollution reductions, in particular from out-of-region sources.

Connecticut

Mercury in Products

In 1990, the Connecticut General Assembly adopted the Toxics in Packaging Act that required elimination of mercury from most packaging within two years. In 1992, Connecticut was one of the first states to pass a law restricting the level of mercury in alkaline batteries. The Universal Waste Rule, which was adopted in 2001, outlines management practices for four specific waste streams, including thermostats and lamps, to reduce mercury in the solid waste stream. Also in 2001, Connecticut DEP provided mercury education and training to used car dealers, auto recyclers, State of Connecticut fleet operations, and City of Hartford fleet operations. Between February 2000 and February 2001, over 283 lbs of mercury and mercury compounds were removed from school science laboratories.

In 2002 Connecticut enacted comprehensive legislation, An Act Concerning Mercury Education and Reduction, targeting the virtual elimination of discharges of anthropogenic mercury to the environment by establishing a program to eliminate non-essential uses of mercury in consumer, household, and commercial products. The first provisions were effective in 2002 and it was fully implemented in 2006. Mercury-containing products such as novelties, fever thermometers, and dairy manometers were banned from sale. After July 1, 2006 the sale or distribution of other mercury-added products containing more than one hundred grams or 100 parts per million of mercury is prohibited, unless the product is specifically exempted from the statutory phase-out requirements, or the department grants a modified or conditional exemption. In addition, manufacturers of mercury-added products are required to meet a number of other provisions under the law to notify, label and provide collection systems. CT DEP works closely with the Interstate Mercury Education and Reduction Clearinghouse to coordinate these actions on a regional basis. The law also places restrictions on the sale and distribution of elemental mercury and its use.

Air Emissions

In 2000, CT DEP revised their air regulations to require stringent controls on resources recovery facilities. Sources subject to the regulation were required to meet an emission limit of 0.80 mg/dry standard cubic meter (dscm) (an 85 percent reduction) by December 2000 and to reduce to 0.028 mg/dscm by June 2002. Connecticut instituted a statewide mercury mass emissions cap by regulation that limits mercury emissions from existing and new coal-fired electric generating units. Beginning January 1, 2010 through December 31, 2017, the cap is 106 pounds of mercury per calendar year. Beginning January 1, 2018, the cap is 42 pounds of mercury per calendar year. Connecticut is currently pursuing a “study and implement” state order focused on the reduction of atmospheric mercury emissions from sewage sludge incinerators.

Dental Sector

CT DEP has adopted best management practices on the use and handling of mercury in dental offices, among other practices, requiring the installation of amalgam separators to trap and remove mercury amalgam from their wastewater discharges.

TMDLs

Connecticut is included in the Northeast Regional Mercury TMDL, which has a goal of reducing atmospheric deposition of mercury to the New England states and New York to a level that will allow for the elimination of fish consumption advisories.

Monitoring and Research

Monitoring studies include:

- 1995 UCONN Mercury study of Fish in Lakes - approximately 45 lakes sampled, bass and other species
- 2008 UCONN study revisited previous study and added additional lakes. Data from 51 Lakes, 492 Samples of Largemouth Bass and Smallmouth Bass.
- Other CTDEP Monitoring: various species, lakes and rivers. Between 1994 and 2010, approximately 300 samples collected for fish tissue from various species. Additional studies were done on crayfish.

For more information on CT's mercury programs, see:

<http://www.ct.gov/dep/cwp/view.asp?a=2708&q=324014>

Maine

Mercury in Products

With some exceptions, the sale of mercury switches, relays, and measuring devices was banned as of July 1, 2006. Measuring devices include barometers, flow meters, hydrometers, manometers, sphygmomanometers, and thermometers. The sale of mercury-added fever thermometers and manometers of the type used in milking machines has been banned in Maine since January 1, 2002. The sale of motor vehicles containing mercury switches has been banned since January 1, 2003. The sale of mercury-added thermostats was prohibited effective January 1, 2006. With the exception of button batteries, the sale of mercury-added batteries has been prohibited in Maine since January 1, 1996. Effective July 1, 2011, the sales prohibition will be extended to mercury-added button cell batteries as well. We estimate that button batteries currently contribute about 30 to 40 pounds of mercury to Maine's waste stream each year. The sale of a mercury-added product is prohibited in Maine as of January 1, 2002 unless the manufacturer (or someone else) has notified the Department of Environmental Protection as to the amount and purpose of the mercury.

Disposal, Recycling, Product Stewardship Maine law requires appropriate disposal of all mercury containing products not only for industry, retail and public sector but by consumers. Assisting this effort are labeling requirements for all mercury-added products since July 2002. Multiple Product Stewardship statutes also assist. Maine has product stewardship programs for mercury auto switches, mercury thermostats and recently passed a CFL product stewardship law. Municipal Waste Combustors were key supporters of CFL Product Stewardship legislation. Recycling CFLs and keeping them out of their municipal waste combustor waste stream is an important strategy for MWCs to continue to stay below the state's 25 lb/year/facility mercury emission limits. Incineration and landfill disposal of cathode ray tubes was banned after January 1, 2006. An Act to Regulate Use of Batteries Containing Mercury was signed into law in March 2006 and provides for labeling of button cell batteries that contain mercury, prohibits disposal of these batteries in landfills and incinerators, and requires retailers to provide for take back of these batteries from customers.

Air Emissions

As amended in 2009, all facility mercury emissions are limited to a 90 percent reduction in mercury or 25 lbs/facility/yr unless they apply for an alternative emission limit. Facilities emitting more than 10 lbs/yr must further conduct stack testing in 2010 and submit mercury reduction plans to the Department by January 1, 2013. These plans will include the stack test results, options for controlling mercury, and cost-benefit analyses for controlling mercury. The Department will provide a follow-up report to the legislature based on the reduction plans submitted. Maine facilities subject to the mercury limits encompass all sectors including utilities, hospitals, municipal waste combustors, a Portland Cement Plant, and crematories. Maine has no Medical Waste Incinerators. Maine hospitals have cooperatively built and run a state of the art in-state autoclave as an alternative method of handling medical waste.

Wastewater Discharges

All facilities with a wastewater discharge are subject to the requirements of *Interim Effluent Limitations and Controls for the Discharge of Mercury, 06-096 CMR 519* (effective February 5, 2000) which require effluent limits be established and that all facilities develop and implement a mercury pollution prevention plan. All facilities in the state are in compliance with this rule.

Dental Sector

Dental offices handling amalgam were required to install amalgam separators by December 31, 2004. The Maine Dental Association spearheaded introduction of the legislation and supported passage. Responding to requests from Maine dentists, the department posts a list of separator models meeting Maine statutory requirements from those vendors who wished to provide the appropriate documentation and be included on the website. Separators installed prior to March 2003 were required to meet 95 percent efficiency rates and installations after that date have been required to meet 99 percent efficiency rates.

TMDLs

Maine is included in the Northeast Regional Mercury TMDL, which has a goal of reducing atmospheric deposition of mercury to the New England states and New York to a level that will allow for the elimination of fish consumption advisories.

Monitoring and Research

Maine funds 4.5 sites of the 6 mercury wet deposition sites operating in the state (DEP pays for 6 months at Acadia NP/Bar Harbor and the National Park Service pays for the other 6; the Penobscot Indian Tribe funds and operates their site in Carrabassett Valley). DEP purchased a Direct Mercury Analyzer (DMO 80) in 2008 that is hosted by the University of Maine in Orono. This technology should allow non-lethal fish sampling using small biopsy samples with costs and turnaround time less than those from the commercial labs that have been used in previous years. Validation of the technology is underway and once completed, fish sampling will resume. Maine's Fish Tissue Residue Criterion for mercury is 0.2 mg/kg .

ME CDC is using the Pregnancy Risk Assessment Monitoring Survey (PRAMS) to determine if new mothers are aware of the state's fish consumption advisories. Results have shown about 70 percent of women are aware. Preliminary results from the new mothers' survey suggest measurable changes in behavior (types and amounts of fish eaten) based on receipt of fish consumption advisories.

For more information on Maine's mercury programs, see:
<http://www.maine.gov/dep/mercury/>

Massachusetts

Statewide Assessment and Reduction Plan

MassDEP completed a statewide assessment of mercury, “Mercury in MA: An Evaluation of Sources, Impacts, Emissions and Controls” in 1996 (<http://www.mass.gov/dep/toxics/stypes/hgexsum.htm>), which informed state positions on mercury; contributed to the 1998 NE States and E. Canadian Provinces Mercury Study, the technical basis of the NEG-ECP MAP; and helped draft the NEG-ECP MAP (<http://www.mass.gov/dep/toxics/priorities/NEG-ECP.pdf>). MA also adopted a statewide plan: the MA Zero Mercury Strategy (<http://www.mass.gov/dep/toxics/stypes/zerohg.pdf>).

Mercury in Products

MA adopted comprehensive mercury products legislation in 2006 (<http://www.mass.gov/dep/toxics/laws/hglawfax.pdf>). Briefly, the law: requires manufacturers who sell mercury-added products to collect “end of life” products and recycle their mercury; bans the sale of many products containing mercury; prohibits disposal of mercury in trash and wastewater; directs schools and state government to stop purchasing mercury-containing supplies; requires manufacturers to notify the state of mercury-added product sales; and established specific manufacturer requirements and performance goals for recycling of mercury vehicle switches and mercury-added lamps.

Air Emissions

In 2004 MA adopted stringent regulations (<http://www.mass.gov/dep/toxics/stypes/hgfact.doc>; <http://www.mass.gov/dep/toxics/stypes/hgreg.pdf>) to reduce mercury emissions from coal-fired EGU. Under this rule, by January 1, 2008, each facility was required to achieve 85 percent or greater mercury emission control efficiency or emit no more than 0.0075 pounds of mercury per net gigawatt-hour of electricity generated (calculated as a rolling annual average). This has been achieved. By October 1, 2012, a 95 percent control efficiency, or emission of less than 0.0025 pounds of mercury per net gigawatt-hour of electricity generated, is to be achieved. The MA Municipal Waste Combustor Rule (<http://www.mass.gov/dep/toxics/stypes/hgres.htm#doing>, see 310 CMR 7.08(2)) was adopted in 1998, and established an emission limit nearly three times more stringent than US EPA's. Facilities were also required to implement mercury source separation plans within their waste-sheds (<http://www.mass.gov/dep/recycle/solid/mspcomp.htm>). Emissions from MSWCs have been reduced by greater than 90 percent. The 1998 NEG-ECP MAP established a mercury emission limit for this sector ten-fold lower than US EPA. In part due to this stringent limit, as well as increasingly stringent limits on dioxin emissions, all MWIs in MA ceased operations by 2003.

Dental Sector

An innovative two-phase program was initiated in 2004 (<http://www.mass.gov/dep/service/dentists.htm>). Initially, MassDEP announced that regulations requiring the use of amalgam separator (AS) pollution controls and BMPs by all dental offices generating mercury containing wastewater would be adopted in 2006. To achieve faster pollution reductions, MassDEP also initiated an incentivized, voluntary early compliance program. Using an Environmental Results Program (ERP) approach, participating dentists electronically certified installation of AS achieving greater than 95 percent mercury control based on the ISO11143 test. Participants were exempted from permit fees and grandfathered from potentially more stringent regulations. Over 75 percent of MA dentists participated. Regulations requiring AS and BMPs were adopted in April, 2006. Greater than 95 percent AS use has been achieved. Over this period mercury levels in treated sludge from the Boston area decreased about 50 percent.

TMDLs

Massachusetts is included in the Northeast Regional Mercury TMDL, which has a goal of reducing atmospheric deposition of mercury to the New England states and New York to a level that will allow for the elimination of fish consumption advisories.

Monitoring and Research

Massachusetts has monitored mercury levels in freshwater fish since the 1990s and established a statewide monitoring network of lakes to track long term trends in fish mercury contamination (<http://www.mass.gov/dep/about/organization/orsfish.htm>). Results have demonstrated a regional fish mercury hotspot, associated with local point source emissions (<http://www.mass.gov/dep/toxics/stypes/ffhgwasp.pdf>) and significant reductions in mercury in fish from MA lakes and ponds coincident with reduced emissions in MA and the Northeast (<http://www.mass.gov/dep/toxics/stypes/hgtrend.pdf>).

For more information on Massachusetts Mercury programs,
<http://www.mass.gov/dep/toxics/stypes/hgres.htm>

New Hampshire

Reduction Strategy

In 1998 the state completed and released the **NH Mercury Reduction Strategy** which contains 40 actions to reduce NH's mercury releases. This document complements the Regional Mercury Action Plan adopted that same year by the six New England States and five Eastern Canadian Provinces. Both plans call for a 50 percent reduction in emissions by 2003 and the ultimate goal of "virtual elimination" of human-generated emissions. After achieving the 2003 goal the regional Mercury Task Force set another interim goal of 75 percent reduction by 2010 (also adopted by NH).

Mercury in Products

New Hampshire has a comprehensive law (149-M:51-58-a) regulating mercury-added products that bans the sale of fever thermometers & novelty items, restricts the use of elemental mercury, prohibits the use of mercury and mercury compounds in k-12 classrooms, requires product manufacturers to report mercury-added items sold in the state, bans the sale of most mercury-added measuring devices, switches & relays (including thermostats, requires collection and recycling of thermostats and bans the disposal of all mercury-added products). Prior to passage of specific mercury products legislation NH had already banned the sale of most mercury-added batteries as well as mercury-added paints and pesticides.

Air Emissions

Any MWC with a design capacity to burn 100 tons/day or more must reduce emissions to achieve no more than 0.028 mg/dscm or at least 85 percent control efficiency
<http://www.gencourt.state.nh.us/rsa/html/NHTOC/NHTOC-X-125-M.htm>. All MWIs are now closed and recent legislation prohibits the construction of any new facilities. An Act Relative to the Reduction of Mercury Emissions <http://www.gencourt.state.nh.us/rsa/html/NHTOC/NHTOC-X-125-O.htm> provides for a minimum of 80 percent reduction of mercury emissions from coal-burning power plants by requiring installation of scrubber technology no later than July 1, 2013 Key features of New Hampshire's legislation are: 1) installation of scrubber technology to achieve mercury reductions at the largest generating facility, 2) economic incentives for early and surplus (greater than 80 percent) emissions reductions, and 3) prohibition on the purchase, transfer, or sale of federal mercury credits to achieve required reductions.

Dental Sector

Legislation authorized the NHDES to place additional restrictions on dental amalgam.

(<http://www.gencourt.state.nh.us/legislation/2002/HB1251.html>)

Under the implementing regulations, all dental practices were required to install ISO certified amalgam separators with a minimum of 95 percent removal efficiency by October 1, 2005.

TMDLs

New Hampshire is included in the Northeast Regional Mercury TMDL, which has a goal of reducing atmospheric deposition of mercury to the New England states and New York to a level that will allow for the elimination of fish consumption advisories.

Monitoring and Research

NHDES has an ongoing mercury fish monitoring program conducted by the Water Division in collaboration with the Fish and Game Department, and maintains a fish mercury database. In addition to the existing overall fish monitoring program, fish are also collected on a rotating basis from specific lakes in order to assess long-term trends.

Mercury Collection & Recycling

NHDES continues to facilitate a variety of elemental mercury collection programs in order to reduce mercury from dentists, schools, dairy farms and maple sugar producers. In addition, the state is also heavily involved in promoting collection of mercury-added products and devices such as thermostats, fluorescent lamps (including CFLs) and automobile switches.

Outreach & education

NH has a comprehensive, two-prong mercury outreach program which focuses on (1) reducing and eliminating the use of mercury and mercury-added products and (2) on the potential health hazards of mercury from spills and broken products, and educating the public about existing mercury fish consumption advisories.

For more information on New Hampshire mercury reduction programs, see:

<http://des.nh.gov/organization/commissioner/p2au/pps/ms/mrpptp/index.htm>

New York

Mercury in Products

A law adopted in September 2005 prohibits the sale and distribution of some mercury-added products including thermostats, barometers, esophageal dilators, bougie tubes, gastrointestinal tubes, flow meters, hydrometers, hygrometers, psychrometers, manometers, pyrometers, sphygmomanometers, thermometers, and switches and relays. The law also requires manufacturers and trade associations dealing in mercury-added products to report certain information to NYS DEC. Although not mandated by law, New York State is working on pollution prevention efforts for health care facilities, an automobile switch collection and recycling project, and a dairy manometers identification and removal program.

Air Emissions

New York State has an emission limit for large MWCs (greater than 250 tons/day) of 28 µg/dscm or 85 percent removal, whichever is less stringent. New York has adopted legislation to control mercury emissions from coal-fired power plants (which incorporates the Phase I emission cap established in the federal Clean Air Mercury Rule (CAMR) for the years 2010-2014, and beginning in 2015, establishes a facility-wide emission limit for each applicable facility. Phase I requires a 50 percent decrease by January 1, 2010 and Phase II will implement a unit-based limit for each power plant facility. This will result in an estimated 90 percent decrease from current levels, which will result in total emissions of 150 lbs/yr or less.

Dental Sector

A law effective in March 2003 prohibited the use of non-encapsulated elemental mercury in dental offices and requires dentists to recycle any elemental mercury or dental amalgam waste generated in their offices. Under related regulations effective May, 2006 dental facilities are also required to install, properly operate, and maintain mercury amalgam separation and collection equipment.

TMDLs

New York is included in the Northeast Regional Mercury TMDL, which has a goal of reducing atmospheric deposition of mercury to the New England states and New York to a level that will allow for the elimination of fish consumption advisories.

Monitoring and Research

The NYSDEC Division of Air Resources participates in mercury deposition monitoring as part of the NADP/MDN (wet dep; <http://nadp.sws.uiuc.edu/mdn>) and the ambient mercury network (AMNet; <http://nadp.sws.uiuc.edu/amn>). The NYSDEC Division of Fish and Wildlife has monitored mercury concentrations in fish since the late 1960s and has conducted a comprehensive Statewide Toxic Substances Monitoring Program from 1976 until 1993. More recently, the monitoring of fish for mercury occurs primarily for research purposes or is related to specific projects and has expanded to include monitoring of mercury in terrestrial animals, including birds, mammals, and invertebrates (<http://www.dec.ny.gov/chemical/8517.html>). The NYSDEC Division of Water monitors mercury levels in surface waters and sediments across the state and regulates point source discharges of mercury (<http://www.dec.ny.gov/chemical/24027.html>). The state Department of Health issues fish consumption advisories when a waterbody is found to contain fish with high mercury levels (<http://www.health.state.ny.us/environmental/outdoors/fish/fish.htm>). The NYS Energy Research and Development Authority - Environmental Monitoring, Evaluation, & Protection program supports research to increase the scientific understanding of the behavior, cycling, and interaction of primary and secondary pollutants, including mercury, related to electricity generation in the environment. The

research findings allow policy makers to identify effective strategies to mitigate the impacts of energy production and use (<http://www.nyserda.org/programs/environment/emep/research.asp>).

For more information on New York's mercury reduction programs, see <http://www.dec.ny.gov/chemical/285.html>

Rhode Island

Mercury in Products

The Mercury Reduction and Education Act requires the phase-out of mercury-added products, labeling, collection plans, bans on certain products, and elimination of mercury from schools. No mercury fever thermometers can be sold after January 1, 2002. After January 1, 2003, no mercury-added novelty can be sold in Rhode Island, unless its only mercury component is one or more mercury-added button cell battery. No school can use or purchase for use bulk elemental or chemical mercury or mercury compounds for use in primary or secondary classrooms. After January 1, 2006 mercury-added products can only be disposed of through recycling or disposal as hazardous waste. Legislation now requires removal and collection of mercury switches from automobiles. On June 8, 2010 the RI General Assembly adopted a mercury thermostat collection and recycling bill (S-2353Aaa & H-7199A) which requires old mercury thermostats to be recycled at the expense of thermostat manufacturers. Wholesalers and contractors play an important role in collecting old mercury thermostats and shall not offer for sale or distribute any thermostat unless the wholesaler/contractor acts as a collection site for thermostats that contain mercury. The bill establishes specific collection goals for thermostats which manufacturers are expected to meet for 2011, 2012, 2013 & 2014. After 2014, DEM is to establish collection goals via regulation. Those manufacturers not in compliance with this law are prohibited from selling thermostats in RI. The bill is currently awaiting action by the Governor.

Air Emissions

Rhode Island has a mercury emissions limit of 0.055 mg/dscm for all MWIs. There are no coal-fired power plants in Rhode Island.

Dental Sector

RI DEM previously had a voluntary self certification program for installation of amalgam separators, and legislation that passed in 2006 required dental offices to install amalgam separators by July 2008.

TMDLs

Rhode Island is included in the Northeast Regional Mercury TMDL, which has a goal of reducing atmospheric deposition of mercury to the New England states and New York to a level that will allow for the elimination of fish consumption advisories.

Monitoring and Research

RI has limited fish tissue mercury data from 2007 and 2008 and conducts quarterly water quality mercury monitoring in four large rivers.

For more information on Rhode Island mercury reduction programs, see:

<http://www.dem.ri.gov/topics/mercury.htm>

Vermont

Mercury in Products

Vermont passed one of the nation's first mercury product labeling laws in 1997 and then passed comprehensive product legislation in 2005, with further amendments and additions in 2007. This law establishes a comprehensive approach to reducing the exposure of citizens to mercury released in the environment through mercury-added product use and disposal, including requirements that manufacturers of mercury-added products provide notice to the agency and report on total mercury contained in certain products, a ban on the distribution or offering for sale of mercury-added novelties, fever thermometers, thermostats, and dairy manometers, and other measuring devices, and to modify the existing labeling requirements for mercury-added products and packaging by expanding the types of products subject to labeling. It also bans the disposal of mercury-added products such as thermostats, thermometers, automobile switches, and bulbs in landfills and incinerators, requires source separation of discarded mercury-added products, and requires solid waste management facilities to inform customers of disposal bans and collection programs for mercury-added products. The law also prohibits purchase and use of mercury-added products and elemental mercury in primary and secondary schools. Hospitals are required to submit a mercury reduction plan to the agency every three years. The Advisory Committee on Mercury Pollution was established by legislation and has convened since 1998 to advise the Legislature and the Department of Environmental Conservation and the Department of Health on programs and policies to reduce mercury exposure and risk.

Air Emissions

Vermont does not have any facilities that produce mercury air emissions.

Dental Sector

Dental practices are required to follow best management practices to reduce mercury waste and releases to the environment, including the installation of dental amalgam separators by January 2007. In addition, dental practices must submit a biennial certification of compliance with best management practices.

TMDLs

Vermont is included in the Northeast Regional Mercury TMDL, which has a goal of reducing atmospheric deposition of mercury to the New England states and New York to a level that will allow for the elimination of fish consumption advisories.

Monitoring and Research

Vermont, through direct or partnership funding, supports several mercury monitoring initiatives, including:

- Wet and Dry Mercury Deposition Monitoring at the Underhill Mercury Monitoring Station
- Lake Champlain Mass Balance Modeling Project
- Process-level research and on-going monitoring by USGS
- Participation in the regional mercury modeling project known as MERGANSER
- Soil and Sediment Mercury Testing
- Vermont Fish Contaminant Monitoring , including data developed in-house and by contractors
- Studies of high-elevation mercury bioaccumulation, fate and transport

For more information on Vermont's mercury reduction programs, see:

<http://www.anr.state.vt.us/dec/ead/mercury/merc.htm>