



TOXIC WATERWAYS

Mercury Pollution in Massachusetts' Waters

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EXECUTIVE SUMMARY

Coal-fired power plants are the single largest source of mercury pollution in the United States. Emissions from these plants eventually make their way into Massachusetts' waterways, contaminating fish and wildlife. Many of Massachusetts' waterways are under advisory because of mercury contamination. Eating contaminated fish is the main source of human exposure to mercury.

Mercury pollution poses enormous public health threats. Mercury exposure during critical periods of brain development can contribute to irreversible deficits in verbal skills, damage to attention and motor control, and reduced IQ.

In 2011, the U.S. Environmental Protection Agency (EPA) developed and proposed the first national standards limiting mercury and other toxic air pollution from existing coal- and oil-fired power plants. Implementing these standards will reduce mercury in our waterways and fish, and protect public health.

In Massachusetts and throughout the United States, mercury contamination is widespread

- In 2010, two-thirds of all airborne mercury pollution came from the smokestacks of coal-fired power plants. Mercury emitted into the air falls with rain or snow into waterways, where it builds up in fish. Distributed over a wide area, just fractions of an ounce of mercury can contaminate local and regional water bodies, making resident fish unsafe to eat.
- Overall, more U.S. waters are closed to fishing because of mercury contamination than because of any other toxic contamination problem.
- One hundred and twenty-four waterways in Massachusetts have advisories for mercury pollution.
- With the exception of a five-ounce serving of trout and salmon per week from the Quabbin and Wachusett reservoirs, Massachusetts Health and

Human Services advises that all children under twelve, pregnant women, women who may become pregnant, and nursing mothers not consume any fish from Massachusetts' waterways.

Mercury pollution threatens public health

- Eating contaminated fish is the main source of human exposure to mercury.
- Mercury is a potent neurotoxicant. In the first two years of a child's life, mercury exposure can lead to irreversible deficits in attention and motor control, damage to verbal skills, and reduced IQ.
- While adults are at lower risk of neurological impairment than children, evidence shows that a low-level dose of mercury from fish consumption in adults can lead to defects similar to those found in children, as well as fertility and cardiovascular problems.
- One in 10 women of childbearing age in the United States has enough mercury in her blood to put her child at risk of developmental damage should she become pregnant.

New EPA standards will limit mercury pollution from power plants and protect public health

- Under the authority of the Clean Air Act, EPA has developed the first national standard limiting releases of mercury and other toxic air pollutants from existing coal- and oil-fired power plants. As proposed, this standard will require power plant owners to cut overall emissions of mercury by more than 90 percent, compared to emissions from a plant without pollution controls.
- Similar pollution standards affecting other industries have successfully reduced mercury contamination of fish in local waterways.

MERCURY POLLUTION FROM POWER PLANTS CONTAMINATES WATERWAYS

Coal-fired power plants are the largest source of airborne mercury emissions in America. In 2010, two-thirds of all airborne mercury pollution came from the smokestacks of these power plants.¹

Mercury emitted into the air by coal-fired power plants falls with rain or snow into waterways. Once mercury is in waterways, it is often converted into methylmercury, an organic form of mercury that builds up in fish and accumulates up the food chain. Distributed over a wide area, just fractions of an ounce of mercury can contaminate local and regional water bodies, making resident fish unsafe to eat.²

A 2007 study in *Bioscience* found mercury hot spots in the northeastern United States and southeastern Canada near local sources of mercury pollution, like coal-fired power plants. These hot spots caused significantly elevated levels of mercury in fish and birds tested in the region.³

Overall, more U.S. waters are closed to fishing because of mercury contamination than because of any other toxic contamination problem.⁴ In Massachusetts, mercury contamination is a serious problem. According to Massachusetts Health and Human Services, one hundred and twenty-four waterways in Massachusetts have advisories for mercury pollution.⁵ As outlined in Table 1, these advisories instruct children under twelve, pregnant women, women who may become pregnant, nursing mothers, and all citizens of Massachu-

setts to limit their consumption of certain fish species in Massachusetts' waterways due to mercury contamination.

Additionally, with the exception of a five-ounce serving of trout and salmon per week from the Quabbin and Wachusett reservoirs, Massachusetts Health and Human Services advises that all children under twelve, pregnant women, women who may become pregnant, and nursing mothers not consume any fish from Massachusetts' waterways.⁶

In addition to the advisories that cover fish caught in Massachusetts' waters, the U.S. EPA and FDA have issued a national advisory for women of childbearing age and children. The FDA recommends that women of childbearing age and children limit their intake of fish, including store-bought fish and canned tuna, to two average meals per week. This adds up to twelve ounces of fish per week for an adult woman.⁷

Throughout the U.S., species that tend to have high levels of mercury include larger freshwater fish and saltwater species such as tuna, swordfish and shark.⁸

MERCURY POLLUTION THREATENS PUBLIC HEALTH

Eating contaminated fish is the main source of human exposure to mercury. People who eat contaminated fish end up with mercury that builds up in their bodies.

The most sensitive populations to mercury exposure are women of childbearing age, and unborn and young children. Unborn



and young children are especially sensitive to contaminants because their organs and systems are not yet fully developed.⁹

In the first two years of a child's life, mercury exposure can lead to irreversible deficits in attention and motor control, damage to verbal skills, and reduced IQ.¹⁰ Additionally, when children exposed to mercury in the womb are monitored at ages 7 and 14, these impairments still exist, which suggests that the effects of even low-level mercury exposure may be irreversible.¹¹ One in 10 women of childbearing age in the United States has enough mercury in her blood to put her child at risk of developmental damage should she become pregnant.¹²

While adults are at lower risk of neurological impairment than children, evidence shows that a low-level dose of mercury from fish consumption in adults can lead to defects similar to those found in children,¹³ as well as fertility and cardiovascular problems.¹⁴ A study by scientists in Finland found that middle-aged men with high levels of mercury in their bloodstream, due to increased fish consumption, have a 60 percent increased risk of heart attacks and other coronary events, and a 70 percent increased risk of cardiovascular death compared to men with lower blood mercury levels.¹⁵

Additionally, researchers at Mt. Sinai School of Medicine, Harvard Medical School, Boston Children's Hospital and the Albert Einstein College of Medicine estimate that mercury pollution costs the nation \$8.7 billion annually in diminished intelligence of the population and resulting lost productivity.¹⁶

NEW POLLUTION STANDARDS ARE NEEDED TO PROTECT PUBLIC HEALTH

Under the authority of the Clean Air Act, in December 2011, EPA will finalize the first national standard—officially known

as Mercury and Air Toxics Standards for Power Plants—limiting releases of mercury and other toxic air pollutants from existing coal- and oil-fired power plants. As proposed in March 2011, this standard will require power plant owners to cut overall emissions of mercury by more than 90 percent, compared to emissions from a plant without pollution controls. Emissions of mercury can be reduced using widely available, proven pollution control technologies, like activated carbon injection.

Slightly more than half of all coal-fired power plants already deploy some of the pollution control equipment capable of delivering the performance necessary to meet the new standard.¹⁷ The remaining coal-fired power plants will have to clean up. For the first time, all power plants will have to operate on a level playing field across the country.

Similar standards affecting incinerators, power plants and other industries have been implemented in some states. These actions have successfully reduced mercury emissions—resulting in significant declines in mercury contamination of fish in local waterways.¹⁸ A national standard will reduce mercury pollution and fish contamination nationwide, benefiting everyone. Studies show that when local sources of mercury pollution are limited, concentration levels in waterways rapidly decrease.

The proposed Mercury and Air Toxics Standards represent a commonsense step that will improve Massachusetts' waterways and protect public health. EPA should finalize the public health safeguard as proposed.

METHODOLOGY

The data for the Massachusetts waterways that are under mercury advisory comes from the Public Health Fish Consumption Advisory, reported by Health and Human Services in 2011. The data is available at <http://db.state.ma.us/dph/fishadvisory/>.

Table 1: Mercury-Polluted Waterways in Massachusetts

Water Body	Species	Meal Frequency for General Population	Meal Frequency for Children under 12, Pregnant Women, Women Who May Become Pregnant, and Nursing Mothers
Aaron Reservoir	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Chain Pickerel	Do not consume any amount	Do not consume any amount
	Yellow Perch		
All water bodies not listed-Statewide Advisory	All Non-Affected Fish	Not Listed	Do not consume any amount
Ames Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Ashumet Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Attitash, Lake	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Baldpate Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Ballardville Impoundment of Shawsheen River	Largemouth Bass	2 meals/month	Do not consume any amount
	Black Crappie		
Bare Hill Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Big Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Boon, Lake	Largemouth Bass	2 meals/month	Do not consume any amount
	Black Crappie		
Buffonville Lake	All Fish	2 meals/month	Do not consume any amount
Burr's Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Cedar Swamp Pond	All Fish	2 meals/month	Do not consume any amount
Chadwicks Pond	All Fish	Do not consume any amount	Do not consume any amount
Charles River (Between South Natick Dam in Natick and Medway Dam in Franklin and Medway)	Largemouth Bass	2 meals/month	Do not consume any amount
Chebacco Lake	Largemouth Bass	2 meals/month	Do not consume any amount
Cochichewick, Lake	Largemouth Bass	2 meals/month	Do not consume any amount
Concord River	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount

Water Body	Species	Meal Frequency for General Population	Meal Frequency for Children under 12, Pregnant Women, Women Who May Become Pregnant, and Nursing Mothers
Copicut River, Cornell Pond	All Fish	Not Listed	Do not consume any amount
	American Eel	Do not consume any amount	Do not consume any amount
	Largemouth Bass	2 meals/month	Do not consume any amount
Crystal Lake	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Dennison, Lake	Largemouth Bass	2 meals/month	Do not consume any amount
Drinkwater River/Indian Head River/North River (from Forge Pond Dam in Hanover to Route 3 in Norwell/Pembroke) and Factory Pond	All Fish	Do not consume any amount	Do not consume any amount
Duck Pond	All Fish	Do not consume any amount	Do not consume any amount
East Monponsett Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Echo Lake	Largemouth Bass	2 meals/month	Do not consume any amount
Factory Pond- See Drinkwater River			
Flint Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Forest Lake	Largemouth Bass	2 meals/month	Do not consume any amount
Forge Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Fosters Pond	All Fish	2 meals/month	Do not consume any amount
Freeman Lake- See Newfield Pond			
Gales Pond	Yellow Perch	2 meals/month	Do not consume any amount
Gibbs Pond	All Fish	2 meals/month	Do not consume any amount
Great Herring Pond	Smallmouth Bass	2 meals/month	Do not consume any amount
Great Pond	All Fish	Do not consume any amount	Do not consume any amount
Great South Pond	All Fish	2 meals/month	Do not consume any amount
Grove Pond	All Fish	Do not consume any amount	Do not consume any amount
Haggetts Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Hamblin Pond	Smallmouth Bass	2 meals/month	Do not consume any amount
Heard Pond	All Fish	Do not consume any amount	Do not consume any amount
Hickory Hills Lake	All Fish	2 meals/month	Do not consume any amount
Holland Pond- see Quinebaug River			
Hood's Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
	Yellow Perch		
Houey's Pond	All Fish	2 meals/month	Do not consume any amount

Water Body	Species	Meal Frequency for General Population	Meal Frequency for Children under 12, Pregnant Women, Women Who May Become Pregnant, and Nursing Mothers
Indian Head River-See Drinkwater River			
Ipswich River between Bostik Findely Dam in Middleton and Sylvania Dam in Ipswich	All Fish	2 meals/month	Do not consume any amount
John's Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Smallmouth Bass	Do not consume any amount	Do not consume any amount
Johnsons Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Kenoza Lake	All Fish	Do not consume any amount	Do not consume any amount
Konkapot River (Mill River to the confluence with the Housatonic River)	All Fish	2 meals/month	Do not consume any amount
Lake Monomonac and North Branch of Millers River	All Fish	2 meals/month	Do not consume any amount
Lake Nippenicket	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
	American Eel		
Lashaway Lake	Largemouth Bass	2 meals/month	Do not consume any amount
Lewin Brook Impoundment	Largemouth Bass	2 meals/month	Do not consume any amount
	Black Crappie		
Locust Pond	All Fish	2 meals/month	Do not consume any amount
Long Pond	All Fish	2 meals/month	Do not consume any amount
Long Pond (Rochester)-See Snipituit Pond			
Lost Lake	Largemouth Bass	2 meals/month	Do not consume any amount
Lowe Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Martins Pond	Largemouth Bass	2 meals/month	Do not consume any amount
	Black Crappie		
	Yellow Perch		
Mashpee/Wakeby Pond	Smallmouth Bass	2 meals/month	Do not consume any amount
Massapoag Lake	Largemouth Bass	2 meals/month	Do not consume any amount
Massapoag Pond	All Fish	2 meals/month	Do not consume any amount
Mechanics Pond	White Perch	2 meals/month	Do not consume any amount
Merrimack River	White Sucker	2 meals/month	Do not consume any amount
	Largemouth Bass		
Miacomet Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	White Perch	Do not consume any amount	Do not consume any amount
Mill Pond (Westborough above GH Nichols Dam)	All Fish	Not Listed	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Mill Pond (Burlington)	Largemouth Bass	2 meals/month	Do not consume any amount

Water Body	Species	Meal Frequency for General Population	Meal Frequency for Children under 12, Pregnant Women, Women Who May Become Pregnant, and Nursing Mothers
Millvale Reservoir	All Fish	Not Listed	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Mirror Lake	Largemouth Bass	2 meals/month	Do not consume any amount
Nabnasset Pond	Largemouth Bass	2 meals/month	Do not consume any amount
New Bedford Reservoir	American Eel	2 meals/month	Do not consume any amount
	Largemouth Bass		
Newfield Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Noquochoke Lake	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
	American Eel		
Nutting Lake	All Fish	2 meals/month	Do not consume any amount
Otis Reservoir	All Fish	2 meals/month	Do not consume any amount
Pentucket Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
	Black Crappie		
Pentucket, Lake	All Fish	Do not consume any amount	Do not consume any amount
Pepperell Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Peters Pond	Smallmouth Bass	2 meals/month	Do not consume any amount
Plainfield Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Plowshop Pond	All Fish	Do not consume any amount	Do not consume any amount
Pomps Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Pontoosuc Lake	Largemouth Bass	2 meals/month	Do not consume any amount
Powder Mill Pond	All Fish	2 meals/month	Do not consume any amount
Puffer's Pond	All Fish	Do not consume any amount	Do not consume any amount
Quabbin & Wachusett Reservoirs	Lake Trout under 24"	Unlimited	One 5 oz meal/week
	Salmon	Unlimited	One 5 oz meal/week
	Smallmouth Bass	Do not consume any amount	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
	Lake Trout over 24"	Do not consume any amount	Do not consume any amount
	All Other Fish	One 5 oz meal/week	Do not consume any fish
Quaboag Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Largemouth Bass	Do not consume any amount	Do not consume any amount
Quinebaug River, East Brimfield Reservoir, Holland Pond	All Fish	2 meals/month	Do not consume any amount
Rock Pond	All Fish	Do not consume any amount	Do not consume any amount
Rohunta Lake	All Fish	2 meals/month	Do not consume any amount
Ryder Pond	All Fish	Do not consume any amount	Do not consume any amount
Saltonstall Lake	Largemouth Bass	2 meals/month	Do not consume any amount

Water Body	Species	Meal Frequency for General Population	Meal Frequency for Children under 12, Pregnant Women, Women Who May Become Pregnant, and Nursing Mothers
Sampsons Pond	Brown Bullhead	2 meals/month	Do not consume any amount
	White Perch		
Shawsheen River-See Ballardville Impoundment			
Sheep Pond	All Fish	2 meals/month	Do not consume any amount
Sherman Reservoir	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Yellow Perch	Do not consume any amount	Do not consume any amount
Silver Lake	Largemouth Bass	2 meals/month	Do not consume any amount
	Yellow Bullhead		
Snake Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Smallmouth Bass	Do not consume any amount	Do not consume any amount
Snipituit Pond and Long Pond	Largemouth Bass	2 meals/month	Do not consume any amount
	Black Crappie		
Somerset Reservoir	Largemouth Bass	2 meals/month	Do not consume any amount
South Pond	All Fish	2 meals/month	Do not consume any amount
Stevens Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Sudbury Reservoir	All Fish	Not Listed	Do not consume any amount
	Bass	Do not consume any amount	Do not consume any amount
Sudbury River (Ashland to its confluence with the Assabet and Concord Rivers; includes the Stem and Bracket Reservoirs in Framingham)	All Fish	Do not consume any amount	Do not consume any amount
Texas Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Thayer Pond-See Texas Pond			
Tom Nevers Pond	All Fish	2 meals/month	Do not consume any amount
Turner Pond	All Fish	2 meals/month	Do not consume any amount
Upper Naukeag Lake	Smallmouth Bass	2 meals/month	Do not consume any amount
	Yellow Perch		
Upper Reservoir	All Fish	2 meals/month	Do not consume any amount
Wachusett River-See Quabbin Reservoir			
Waite Pond	All Fish	2 meals/month	Do not consume any amount
Walden Pond	Largemouth Bass	2 meals/month	Do not consume any amount
	Smallmouth Bass		
Wampanoag Lake	All Fish	2 meals/month	Not Listed
Warner's Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Wenham Lake	All Non-Affected Fish	2 meals/month	Do not consume any amount
	American Eel	Do not consume any amount	Do not consume any amount
	Largemouth Bass		
Wequaquet Lake	Largemouth Bass	2 meals/month	Do not consume any amount

Water Body	Species	Meal Frequency for General Population	Meal Frequency for Children under 12, Pregnant Women, Women Who May Become Pregnant, and Nursing Mothers
Whitehall Reservoir	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Yellow Bullhead	Do not consume any amount	Do not consume any amount
Whitings Pond	Largemouth Bass	2 meals/month	Do not consume any amount
	Bluegill		
Whitney Pond	All Non-Affected Fish	2 meals/month	Do not consume any amount
	Chain Pickerel	Do not consume any amount	Do not consume any amount
Wickaboag Pond	Largemouth Bass	2 meals/month	Do not consume any amount
Willet Pond	Largemouth Bass	2 meals/month	Do not consume any amount

NOTES:

- 1 This data comes from power plant emissions data reported to the U.S. Environmental Protection Agency's Toxics Release Inventory (TRI).
- 2 Clean Air Network, The Problem with Mercury (factsheet), August 1999.
- 3 David Evers, et al. "Biological Mercury Hotspots in the Northeastern United States and Southeastern Canada," *Bioscience*, January 2007, vol. 57 (1), pg. 29.
- 4 U.S. Environmental Protection Agency Office of Research and Development's Science To Achieve Results (STAR) Research in Project (a product of the National Center for Environmental Research), Mercury Transport and Fate in Watersheds, October 2000. <http://www.epa.gov/ncer/publications/starreport/starten.pdf>
- 5 The Massachusetts Health and Human Services, Public Health Fish Consumption Advisory, November 18, 2011, available at <http://db.state.ma.us/dph/fishadvisory/>
- 6 Ibid.
- 7 U.S. Environmental Protection Agency, What You Need to Know about Mercury in Fish and Shellfish. 1 November 2011, available at http://water.epa.gov/scitech/swguidance/fishshellfish/outreach/advice_index.cfm#what
- 8 U.S. Environmental Protection Agency, Frequently Asked Questions about Mercury in Fish and Shellfish: What is Mercury and Methylmercury?, 6 October 2011, available at water.epa.gov/scitech/swguidance/fishshellfish/outreach/advice_index.cfm.
- 9 Ohio Environmental Protection Agency, Ohio Sport Fish Consumption Advisory – Questions & Answers, available at <http://www.epa.ohio.gov/dsw/fishadvisory/questions.aspx>
- 10 Philippe Grandjean and Philip Landrigan, "Developmental Neurotoxicity of Industrial Chemicals," *The Lancet* 368: 2167–2178, 16 December 2006.
- 11 Philippe Grandjean, Department of Environmental Health, Harvard School of Public Health, Testimony at the Mercury MACT Rule Hearing, sponsored by Congressman Thomas Allen, U.S. House of Representatives, 18 March 2004, available at thomas.loc.gov/cgi-bin/query/F?r108:1:/temp/~r108Aoc9u1:e122363.
- 12 Kathryn R. Mahaffey et al, U.S. Environmental Protection Agency, Adult Women's Blood Mercury Concentrations Vary Regionally in the United States: Association with Patterns of Fish Consumption (NHANES 1999–2004), *Environmental Health Perspectives* 117: 47–53, 25 August 2008.
- 13 Edna M. Yokoo et al., "Low Level Methylmercury Exposure Affects Neuropsychological Function in Adults," *Environmental Health*, 2(8), June 2003.
- 14 Amar, Praveen, *Mercury Emissions from Coal-fired Power Plants: The Case for Regulatory Action*. Northeast States for Coordinated Air Use Management, 2003.
- 15 Virtanen, J.K., et al. "Mercury, Fish Oils, and Risk of Acute Coronary Events and Cardiovascular Disease, Coronary Heart Disease, and All-Cause Mortality in Men in Eastern Finland," *Arteriosclerosis, Thrombosis, and Vascular Biology*, 2005, vol. 25, p. 228.
- 16 Leonardo Trasande et al, "Public Health and Economic Consequences of Methyl Mercury Toxicity to the Developing Brain," *Environmental Health Perspectives* 115: 590–596, May 2005.
- 17 James E. McCarthy and Claudia Copeland, Congressional Research Service, EPA Regulations: Too Much, Too Little, or On Track?, 21 March 2011, p11, section 16–17.
- 18 Evidence summarized in Northeast States for Coordinated Air Use Management, Tracking Progress in Reducing Mercury Air Emissions, September 2007, available at www.newmoa.org/prevention/mercury/NESCAUMMercurySuccessStory.pdf.