Dirty Energy's Assault on our Health:

MERCURY

January 2011

ENVIRONMENT WASHINGTON

DIRTY ENERGY'S ASSAULT ON OUR HEALTH: MERCURY

Shelley Vinyard and Lauren Randall,
Environment Washington Research & Policy Center

January 2011

Acknowledgements

The authors wish to thank Dr. Michael Ash of the University of Massachusetts-Amherst Department of Economics, Ann Weeks of the Clean Air Task Force, and Emily Figdor of Environment Maine for reviewing the report. Thanks also to Anna Aurilio, Nathan Willcox, Tony Dutzik, Adam Garber, Bill Reilly, Julian Boggs, and Catherine Bowes for additional research assistance and editorial support.

Photo Credit: Users from Flickr Creative Commons: imperfect escape, mrjoro, Shanna Leigh; Shutterstock: Mark Smith

Environment Washington Research & Policy Center bears responsibility for any factual errors. The recommendations are those of Environment Washington Research & Policy Center and do not necessarily reflect the views of those who provided editorial review or the funders of Environment Washington Research & Policy Center.

The Environment Washington Research & Policy Center is a 501(c)(3) organization. We are dedicated to protecting Washington's air, water and open spaces. We investigate problems, craft solutions, educate the public and decision-makers, and help Washingtonians make their voices heard in local, state and national debates over the quality of our environment and our lives.

For more information about Environment Washington Research & Policy Center or for additional copies of this report, please visit
www.EnvironmentWashington.org.

Table of Contents

Dirty Energy's Assault on our Health: Mercury

Lauren Randall and Shelley Vinyard

Executive Summary

Our dependence on oil and coal-fired power plants has broad detrimental impacts on our health and our environment. Power plants represent America's single biggest source of air pollution, affecting our waterways, destroying ecosystems, and polluting the air we breathe.[1] Pollution from coal-fired power plants in particular contributes to four of the five leading causes of mortality in the United States: heart disease, cancer, stroke, and chronic respiratory diseases.[2]

Dirty Energy's Assault on our Health is a series of reports examining the numerous threats that power plants pose to our environment and our health. Each segment in the series focuses on a different pollutant emitted by power plants.

This report looks at the health and environmental impacts of mercury pollution from power plants.

In the United States, mercury contamination is widespread.

• According to the United States Environmental Protection Agency, mercury impairs 3,781 bodies of water across the country, and 6,363,707 acres of lakes, reservoirs, and ponds in the United States are contaminated by mercury pollution.[3],[4] See ES Figure 1.

• Because mercury is the most common contaminant in fish in the U.S., every state has set some sort of fish advisory due to unsafe levels of the toxic pollutant.[5],[6]

• Overall, more U.S. waters are closed to fishing because of mercury contamination than because of any other toxic contamination problem.[7]

E.S. Figure 1. Areas of National Watersheds Affected by Mercury Pollution[8]

Lakes, Reservoirs, and Ponds	6,363,707 acres
Rivers and Streams	46,922 miles
Bays and Estuaries	2,080 square miles
Oceans and Near Coastal	4,639 square miles
Wetlands	225,786 acres
Great Lakes Open Water	31,961 square miles

Mercury poses a substantial health threat.

• Children who are exposed to low-dosage levels of mercury in utero can have impaired brain functions, including verbal, attention, motor control, and language deficits, and lower IQs.[9] 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.[10]

• Studies show that one in six women of childbearing age has enough mercury in her bloodstream to put her child at risk of the health effects of mercury exposure should she become pregnant.[11] This means that more than 689,000 out of the 4.1 million babies born every year could be exposed to dangerous levels of mercury pollution.[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]

• Adult and in utero exposure to higher, acute levels of mercury has been linked to mental retardation, seizures, blindness, and even death.[15]

Mercury pollution puts entire ecosystems at risk.

• Wildlife that is exposed to mercury may die or, depending upon the level of exposure, have reduced fertility or complete reproductive failure, as well as slower growth and development.[16],[17]

• Common loons in Maine suffer from abnormal behavior and physiology and decreased reproductive success because of mercury pollution.[18],[19]

• The Florida Panther Society found that chronic exposure to mercury may be a significant factor responsible for lower than expected population densities of panthers in large portions of their range, and is likely contributing to the extinction of this endangered animal.[20]

• Even small levels of mercury in waterways contaminate wildlife. Scientists found that a gram of mercury – about a drop – deposited in a mid-sized lake in Wisconsin over the course of a year was enough to account for all of the mercury subsequently found in that lake's fish population.[21]

Power plants continue to spew mercury into our air, waterways, wildlife, and bodies.

• The amount of mercury emitted from coal-fired power plants far exceeds the total mercury pollution from the 10 next biggest sources of the pollutant.[22] In total, coal-fired power plants emitted 134,365 pounds of mercury in 2009.[23]

• Four plants in Texas made it in to the top 10 most polluting power plants in the United States in 2009, with the Martin Lake Steam Electric Station & Lignite Mine the worst in the nation, emitting 2,660 pounds of mercury. Power plants in Pennsylvania, Ohio, Georgia, and West Virginia also fell into the top 10 most polluting power plants in the country. See ES Figure 2.

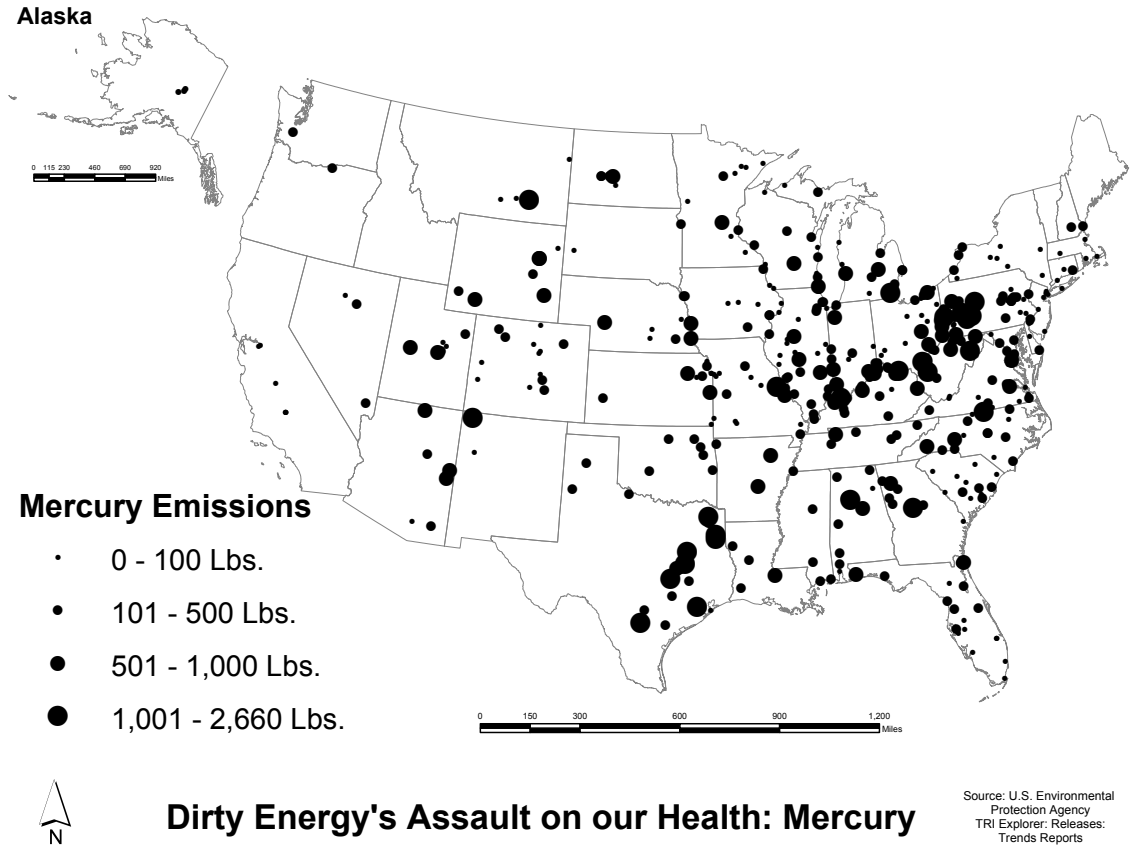
To protect the public and the environment from mercury pollution, the United States must require power plants meet modern pollution standards that will substantially reduce emissions of toxic mercury.

• Under the Clean Air Act, the Obama administration's EPA is legally obligated to propose the "Maximum Achievable Control Technology" standard to reduce mercury and other toxic air pollution from power plants by March 2011. Using science and the regulatory tools they have at hand, the EPA should implement the strongest standard possible, and specifically cut mercury pollution by more than 90% to protect our health and our environment. While 19 states have already enacted statewide mercury limits for power plants, the EPA must set a strong federal standard that cuts mercury from power plants by more than 90%, because mercury pollution travels beyond state boundaries and puts all Americans at risk of its harmful effects.

E.S. Figure 2. Top 10 Most Polluting Power Plants in the United States[24]

Rank	Facility	City	State	Zip Code	Total mercury emissions (in lbs.)
1	MARTIN LAKE STEAM ELECTRIC STATION & LIGNITE MINE	Tatum	TX	75691	2,660
2	RRI ENERGY INC KEYSTONE POWER PLANT	Shelocta	PA	15774	2,164
3	AMERICAN ELECTRIC POWER GAVIN PLANT	Cheshire	OH	45620	2,099
4	RRI ENERGY INC CONEMAUGH POWER PLANT	New Florence	PA	15944	2,060
5	MONTICELLO STEAM ELECTRIC STATION & LIGNITE MINE	Mount Pleas-ant	TX	75455	1,828
6	SCHERER STEAM ELECTRIC GENERATING PLANT	Juliette	GA	31046	1,649
7	LIMESTONE ELECTRIC GENERATING STATION	Jewett	TX	75846	1,647
8	CAMBRIA COGEN CO	Ebensburg	PA	15931	1,644
9	DOMINION MOUNT STORM POWER STATION	Mount Storm	WV	26739	1,571
10	SAN MIGUEL ELECTRIC COOPERATIVE INC	Christine	TX	78012	1,560

Map of all mercury emissions from power plants in the United States



Dirty Energy's Assault on our Health: Mercury

Source: U.S. Environmental Protection Agency TRI Explorer: Releases: Trends Reports

• The United States as well as individual states should take action to promote the U.S.'s transition away from dangerous power plants, and the life-threatening mercury pollution they emit, to a clean energy economy. Each state can:

- through a renewable energy standard, help ensure that America generates at least 25 percent of its electricity from renewable sources of energy such as wind and solar by 2025;
- strengthen energy efficiency standards and codes for appliances and buildings by 50 percent by 2020 and ensure that all new buildings use zero net energy by 2030;
- ramp up investment in solar power through tax credits, specific targets in state renewable electricity standards, requirements for "solar ready homes," rebate programs, and other measures; and
- end subsidies to fossil fuel industries.

The Public Health Threats of Mercury in our Environment

When coal-fired power plants and industrial boilers emit mercury into the air, the toxic chemical often winds up in waterways. Rain, snow, and dust particles "wash" mercury out of the air, onto land, and into waterways. Once mercury is in waterways, it's often converted into methylmercury, an organic form of mercury that builds up in fish and accumulates up the food chain. It is this methylmercury contamination that poses risks to human health and wildlife.

This type of mercury pollution is a very real problem for human health. Children who are exposed to low-dosage levels of mercury in utero can have impaired brain functions, including verbal, attention, motor control, and language deficits, and lower IQs.[25] Adult and in utero exposure to high, acute levels of mercury has been linked to mental retardation, seizures, blindness, impaired motor control, and even death.[26] Humans are exposed to mercury almost entirely through consumption of mercury-contaminated fish.[27] Because mercury is one of the most common contaminants in America's waterways, many rivers, lakes, and streams in the United States have mercury-contaminated fish, which people catch and eat. Thus, levels of human exposure to mercury can be quite high.[28] Recent studies have found that as many as one in six women of childbearing age has enough mercury in her bloodstream to put her child at risk of suffering from the health effects of mercury pollution.[29] This means that more than 689,000 out of the 4.1 million babies born every year could be exposed to dangerous levels of mercury pollution.[30]

Christy Goldfuss is a new mother in Washington, DC. Unfortunately, while she was pregnant, she had to limit her fish consumption because of the risk that mercury contamination posed to her baby. "I love fish, but the health of my son came first during my pregnancy. Because mercury in fish is such a big problem in the United States, I had to pay close attention to how much and what kinds of fish I ate." she said.

Mercury is dangerous because it causes many different developmental disorders and delays, and it accumulates in the bloodstream and up the food chain. This means that while small fish in a mercury-contaminated lake may have some concentration of mercury in their bloodstreams, larger fish that eat them will have higher mercury concentrations, and humans consuming higher quantities of fish will have even higher, often unsafe levels of mercury in their bodies. The EPA recommends that women of childbearing age and young children avoid entirely the consumption of large fish

like shark, swordfish, King mackerel, and tilefish, and suggests limiting consumption of other smaller fish to two 12 oz. servings a week.[31] (See Table 1 below for the EPA's recommendations for fish consumption nationwide). Additionally, when consuming fish caught locally, Americans should first refer to local fish advisories, and where no local advisory exists, they should limit consumption to 6 oz. of locally-caught fish per week, and no additional fish consumption.[32]

EPA Fish Consumption Advisories

Do not consume:	• Shark • Swordfish • King Mackerel • Tilefish
Up to two 12 oz. servings per week:	• Shrimp • Canned light tuna • Salmon • Pollock • Catfish
One 6 oz. serving per week:	• Albacore (white) tuna • Fish caught from local waters

Mercury is known as a persistent bioaccumulative toxin (PBT). This means that in addition to building up in the food chain over time, or bioaccumulating, mercury is long-lasting and accumulates faster than it decays in the body.[33]

It is widely known that acute, short-term exposure to mercury can lead to mercury poisoning. Two cases of mass poisoning in Japan and Iraq from the 1950s to the 1970s were studied to gauge the effects of exposure to high concentrations of mercury. In Minimata Bay, Japan, a chemical industry dumped vast quantities of mercury into the waters where many local fishermen fished. Because the villagers ate much of the fish caught by the local fishermen, exposure was high and many people became ill or died in the following few years.[34] In Iraq, merchants sold grain that was treated with a fungicide that contained mercury. Thousands of Iraqis consumed the grain, ultimately killing anywhere between 450 and 5,000 people.[35]

The cases in Japan and Iraq revealed that mercury exposure primarily affects the nervous system, and that developing fetuses and children are more susceptible to the pollutant than adults. In Japan, even fetuses from mothers who did not display evidence of mercury poisoning later developed severe neurological disorders due to high exposure in the womb.[36]

While acute, short-term exposure to mercury can cause significant dangerous health effects, chronic, long-term exposure from continual small doses is much more common and can cause subtle neurological defects that have widespread consequences.[37]

Chronic exposure often comes from eating contaminated fish from mercury-polluted waterways.[38] Moreover, scientists recently found that many of the beneficial impacts on brain development from fish consumption are negated by consuming mercury-contaminated fish.[39]

When pregnant women are exposed to mercury from eating fish, that mercury is often transmitted to the fetus, where the child's developing brain is put at risk. Young children or infants who were exposed to lower levels of mercury in utero can have impaired brain functions, including verbal, attention, motor control, and language deficits, and lower IQs.[40] Additionally, when children who were 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.[41] A recent study by scientists at the University of California-Los Angeles found that chronic mercury exposure increased dramatically from 1999 to 2006. The study, which analyzed blood inorganic mercury levels in over 6,000 women of childbearing age, found that while mercury was found in just 2% of that population in 1999, the toxic metal was detected in 30% of women in 2006.[42]

In 2000, the National Academy of Sciences and the National Research Council presented a study to Congress on the health effects of mercury exposure. The scientists conducting the study found that the neurological disorders associated with mercury exposure likely result in more children who struggle in the classroom and who must attend remedial classes or special education.[43]

A study published by Health and Place, using data from the Texas Education Department and the EPA, found an association between environmentally released mercury, special education, and autism rates in Texas. In short, rates of special education students and autism rates increased in association with increases in environmentally released mercury. On average, for each 1,000 pounds of environmentally released mercury, there was a 43% increase in the rate of special education services and a 61% increase in the rate of autism in Texas. The total mercury emissions from Texan power plants reached 16,350 pounds in 2009.[44]

Because fetuses are so sensitive to mercury exposure and because the metal remains in the body for long periods of time, even women of childbearing age who are not pregnant but may become pregnant are still encouraged to limit consumption of certain types of fish known to have higher concentrations of mercury. Additionally, while adults are at lower risk of neurological impairment, evidence has shown that a low-level dose of mercury from fish consumption in adults can lead to defects similar to those found in children,[45] as well as fertility and cardiovascular problems.[46] 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% increased risk of coronary events, and a 70% increased risk of cardiovascular death compared to men with lower blood mercury levels.[47] Currently, every state has set some sort of fish advisory due to unsafe levels of the toxic pollutant,[48] which is up from 41 states with fish advisories from mercury pollution in December 2000.[49]

Other Environmental Effects of Mercury

Right now mercury is the most common contaminant in fish in the United States and Canada.[50] Wildlife that is exposed to mercury may die or, depending upon the level of exposure, have reduced fertility or complete reproductive failure, as well as slower growth and development.[51],[52] A recent study suggests that mercury pollution could be changing animal behavior and in the process hampering some species' reproductive abilities. For instance, American white ibises from south Florida that consumed methylmercury were more likely to engage in same-sex pairings – a phenomenon unknown to wild populations of this species with no exposure to the pollutant.[53]

Even minute levels of mercury in waterways contaminate wildlife. Scientists found that a gram of mercury – about a drop – deposited in a mid-sized lake in Wisconsin over the course of a year was enough to account for all of the mercury subsequently found in that lake's fish population.[54] Additionally, a team of Minnesota researchers determined that mercury concentrations in fish may have increased by a factor of 10 over the last century, based on comparing modern fish to fish preserved in the 1930s.[55] As power plants continue to emit thousands of pounds of mercury into our air every year, wildlife continues to be at risk of mortality and reproductive failure.[56]

The table below lists the top ten states with the highest levels of mercury pollution from power plants. When power plants spew out thousands of pounds of mercury pollution in states like Texas, Pennsylvania, and Ohio, they pose serious threats to wildlife and our environment. In Pennsylvania, for instance, mercury contamination is so pervasive that the state set a blanket advisory recommending that consumption of any fish caught in Pennsylvania waters be limited to one meal per week.[57]

The Top Ten: States with the Highest Levels of Mercury Pollution from Power Plants[58]

Rank	State	Emissions (in lbs.)
1	Texas	16,350
2	Pennsylvania	15,550
3	Ohio	9,518
4	West Virginia	6,795
5	Indiana	6,046
6	Kentucky	5,930
7	Illinois	4,973
8	North Carolina	4,702
9	Alabama	4,324
10	Michigan	4,012

(See Appendix D for full table)

Fish, and those birds and mammals, including humans, that eat fish, are at greatest risk of mercury contamination and the adverse effects associated with it.[59] Mercury pollution accumulates in fish over the course of their lifetimes. Moving up the food chain, any predators that consume fish-eating animals are also at risk of consuming unsafe levels of mercury, meaning that the effects of mercury pollution in waterways can be found in species that may not have any direct interactions with a polluted waterway. The EPA estimates that 3,781 waterways in the United States have unsafe levels of mercury pollution in them[60] (see Appendix E for full list), and 6,363,707 acres of lakes, reservoirs, and ponds in the United States are contaminated by mercury pollution (see chart below, areas of national watersheds affected by mercury pollution).[61],[62]

Areas of National Watersheds Affected by Mercury Pollution[63]

Lakes, Reservoirs, and Ponds	6,363,707 acres
Rivers and Streams	46,922 miles
Bays and Estuaries	2,080 s quare miles
Oceans and Near Coastal	4,639 square miles
Wetlands	225,786 acres
Great Lakes Open Water	31,961 square miles

Scientists have detected mercury in a wide range of species: from tuna, swordfish, and shark, to eagles, otters, and endangered Florida panthers. The Florida Panther Society found that chronic exposure to mercury may be a significant factor responsible for lower than expected population densities of panthers in large portions of their range, and is likely contributing to the extinction of this endangered animal.[64] Fish such as largemouth bass and sunfish in the Everglades National Park are at risk of contamination and mortality, and common loons in Maine suffer from abnormal behavior and physiology, and decreased reproductive success because of mercury pollution.[65],[66] Of the five loon species found in the world, only the common loon breeds in Maine.[67] Unfortunately, studies of the New England common loon breeding populations conducted from 1994 to 2003 show that the birds are at a high level of risk to mercury contamination. During the study period, 324 abandoned eggs and blood and feathers from 408 adults and 142 juvenile common loons were collected from Maine lakes. By 2004, 22% of the common loon breeding population in Maine was considered to be at risk.[68]

In addition, a study by Gary H. Heinz, from the Patuxent Wildlife Research Center in Laurel, Maryland, assessed the effects of mercury on three generations of mallard ducks. The second generation of mallard ducks were subjected to mercury pollution at the level of 0.5 parts per million, a level that is found in 1 out of 5 Colorado reservoirs.[69] These ducks suffered adverse reproductive effects including eggs laid outside the nest box, a reduced number of ducklings surviving to one week of age, and reduced growth of ducklings. The third generation of mallards also demonstrated adverse reproductive effects, a reduced number of viable eggs laid per day, and thinner egg shells.[70]

While fish, and predators that eat fish, are at greatest risk of mercury contamination, scientists recently discovered that birds living in forests – far from waterways and fish - are also accumulating mercury.[71] Mercury can be converted into methylmercury in forest soils, where insects and spiders are exposed to it. Birds that consume these insects and spiders thus build up mercury in their bodies. Scientists recently found high levels of mercury in Wood Thrush birds, a species that feeds on spiders and other invertebrates and is common to the woodlands of the eastern United States. Some scientists speculate that the combined impact of mercury exposure and acid rain might be contributing to the near disappearance of breeding Wood Thrushes from the Adirondack Mountains.[72]

Overall, more U.S. waters are closed to fishing because of mercury contamination than because of any other toxic contamination problem.[73] Not only does this pose serious environmental issues, but it also affects the industries that depend on healthy waterways. For

more than 100 years, Onondaga Lake in upstate New York was a commercially-viable cold water fishery, full of whitefish and Atlantic salmon. As it attracted more fishermen and tourists, a number of resorts were built along its shoreline. Yet after the lake became a disposal site for industrial waste, fishing was banned due to dangerous levels of mercury pollution.[74] As a result, fishermen and the fishing industry suffered.

Currently, an average of 1.5 million fish are caught by anglers each year in Lake Erie and surrounding bays and tributaries.[75] Yet, between 1990 and 2007, researchers found that levels of mercury in Lake Erie fish were increasing.[76] The polluted waters could seriously harm Lake Erie's fishing industry and the health of aquatic species exposed to the pollution.

Mercury Pollution and Power Plants

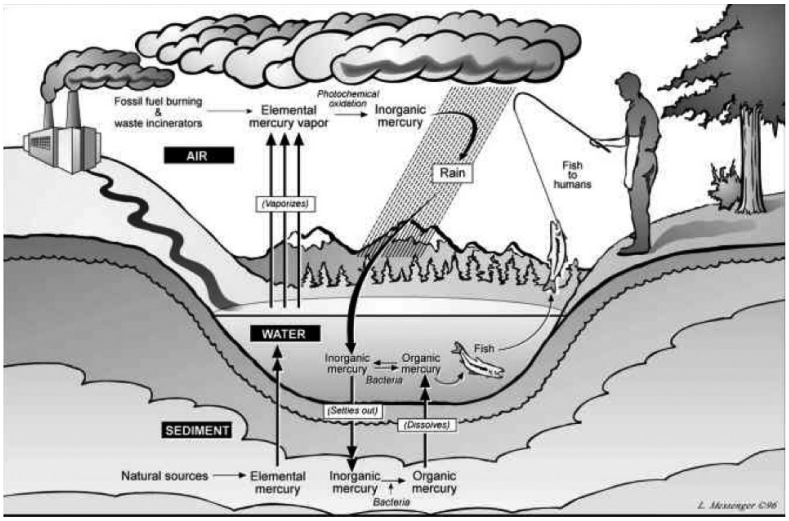
Coal-fired power plants are by far the largest single source of mercury pollution in the United States, emitting 41.6 percent of all the industrial sources of mercury pollution in the United States in 1999, the last year for which this data is available. Commercial and industrial boilers and chlorine manufacturing facilities are the next largest sources of mercury pollution, accounting for 8.3 percent and 5.6 percent of the national total, respectively. The amount of mercury emitted from coal-fired power plants far exceeds the total mercury pollution from the ten next largest sources of the pollutant.[77] Additionally, despite significant advancements in the technology used to reduce mercury pollution from coal-fired power plants, and the existence of many state regulatory programs, mercury from power plants in the United States still remains largely uncontrolled. Power plants emitted 134,365 pounds of mercury in 2009 (See chart in Appendix A).[78]

Mercury occurs naturally in our environment and can be found in many different rocks and geological structures, including coal.[79] When power plants burn coal, they emit mercury and other dangerous toxic pollutants like lead and arsenic—polluting our air and waterways.

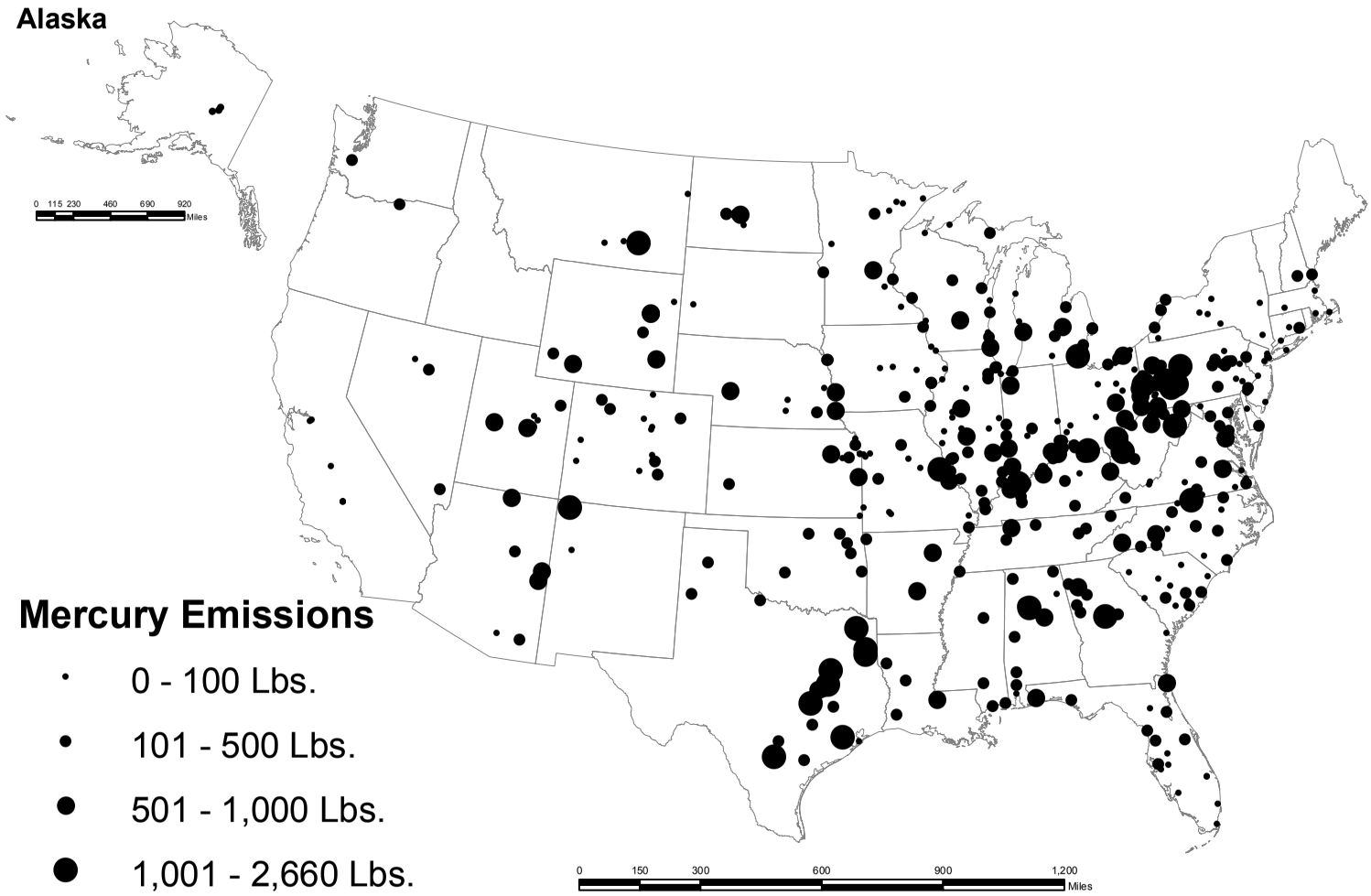
Mercury is deposited into our environment from coal-fired power plants in three different forms: gaseous elemental mercury, oxidized mercury, and particulate-bound mercury.

When coal-fired power plants emit mercury in its elemental form, the emissions remain in the atmosphere for several months and can migrate, meaning that emissions from one country or continent will often end up on other continents. Scientists have found mercury pollution in California that can be traced to emissions from China.[81]

The Process of Mercury Deposition into Air and Waterways



Source: University of Wisconsin Solid and Hazardous Waste Education Center[80]



Dirty Energy's Assault on our Health: Mercury

Source: U.S. Environmental Protection Agency
TRI Explorer: Releases: Trends Reports

However, oxidized and particulate-bound mercury remains in the atmosphere for much shorter periods, and so these emissions travel significantly shorter distances than the elemental form—anywhere between 50 and 500 miles from their originating source.[82] In its extensive 1997 Mercury Study Report to Congress, the EPA estimates that 60 percent of mercury pollution in the United States comes from U.S. sources, from oxidized and particulate-bound mercury.[83] This means that mercury deposited in either of these two forms will be more concentrated in the area near the source of the emissions than further away, creating mercury hot spots where people and wildlife are particularly at risk of the detrimental effects of the pollutant. Additionally, a 2007 study in Bioscience found 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.[84] (See chart below for the top 25 most polluting power plants in the United States, and map of all mercury emissions from power plants in the United States).

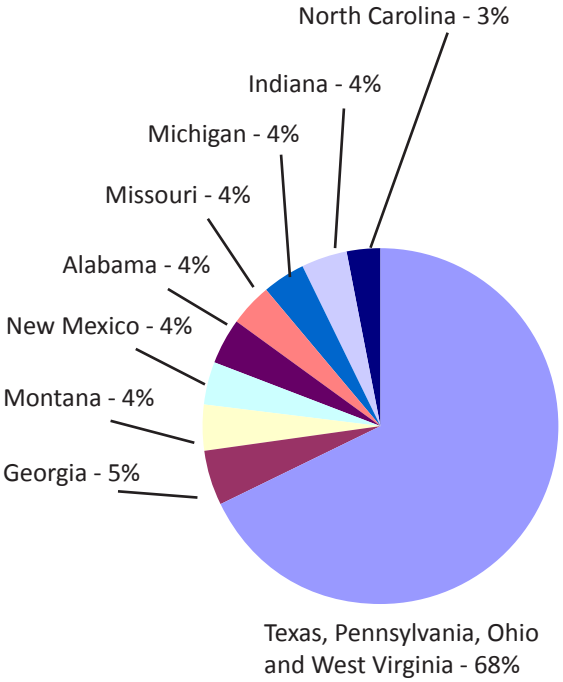
Top 25 Most Polluting Power Plants in the United States[85]

Rank	Facility	City	State	Zip Code	Total Hg emissions (in lbs.)
1	MARTIN LAKE STEAM ELECTRIC STATION & LIGNITE MINE	Tatum	TX	75691	2,660
2	RRI ENERGY INC KEYSTONE POWER PLANT	Shelocta	PA	15774	2,164
3	AMERICAN ELECTRIC POWER GAVIN PLANT	Cheshire	OH	45620	2,099
4	RRI ENERGY INC CONEMAUGH POWER PLANT	New Florence	PA	15944	2,060
5	MONTICELLO STEAM ELECTRIC STATION & LIGNITE MINE	Mount Pleasant	TX	75455	1,828
6	SCHERER STEAM ELECTRIC GENERATING PLANT	Juliette	GA	31046	1,649
7	LIMESTONE ELECTRIC GENERATING STATION	Jewett	TX	75846	1,647
8	CAMBRIA COGEN CO	Ebensburg	PA	15931	1,644
9	DOMINION MOUNT STORM POWER STATION	Mount Storm	WV	26739	1,571
10	SAN MIGUEL ELECTRIC COOPERATIVE INC	Christine	TX	78012	1,560
11	COLSTRIP STEAM ELECTRIC STATION	Colstrip	MT	59323	1,490
12	FOUR CORNERS STEAM ELECTRIC STATION	Fruitland	NM	87416	1,481
13	BIG BROWN STEAM ELECTRIC STATION & LIGNITE MINE	Fairfield	TX	75840	1,426
14	MILLER STEAM PLANT	Quinton	AL	35130	1,354
15	AMERENUE LABADIE POWER PLANT	Labadie	MO	63055	1,297
16	WA PARISH ELECTRIC GENERATIN G STATION	Thompsons	TX	77481	1,289
17	DETROIT EDISON MONROE POWER PLANT	Monroe	MI	48161	1,235
18	JM STUART STATION	Manchester	OH	45144	1,234
19	AMERICAN ELECTIC POWER ROCKPORT PLANT	Rockport	IN	47635	1,226
20	SANDOW STEAM ELECTRIC STATION	Rockdale	TX	76567	1,185
21	AMERICAN ELECTRIC POWER HW PIRKEY POWER PLANT	Hallsville	TX	75650	1,154
22	AMERICAN ELECTRIC POWER AMOS PLANT	Winfield	WV	25213	1,110
23	CAROLINA POWER & LIGHT CO - ROXBORO STEAM ELECTRIC PLANT	Semora	NC	27343	1,079
24	RRI ENERGY INC SHAWVILLE STATION	Shawville	PA	16873	1,071
25	BRUCE MANSFIELD POWER PLANT	Shippingport	PA	15077	1,023

(See Appendices B and C for data for all mercury pollution from power plants in the United States)

According to data from the Toxics Release Inventory, the top 25 largest emitters of mercury pollution are located in just 12 states, with four states—Texas, Pennsylvania, Ohio, and West Virginia—responsible for 68% of that pollution. (See chart below and Appendix D.)[86]

Amount of mercury emitted by top 25 power plants by state



Additionally, only 16 companies own all the top 25 biggest mercury polluting facilities. The top 25 facilities, out of 451 power plants, are responsible for 38,933 pounds of mercury, or nearly 28% of the total mercury emissions from power plants in the United States. Just four companies own 13 of the worst 25 plants—Luminant, American Electric Power, RRI Energy Inc. (formerly Reliant Energy), and NRG Energy—which cumulatively produce 20,919 pounds of mercury pollution every year, or over 15% of total mercury emissions from all power plants in the United States. (See table at right and Appendix E.)[87]

Studies show that when local sources of mercury pollution are limited, concentration levels in waterways rapidly decrease. So while international sources of mercury pollution do play a role in mercury hot spots and overall pollution levels in the United States, reducing mercury pollution from U.S. sources is imperative to cutting mercury pollution levels across the country.

Mercury emissions from top 25 worst power plants, by ownership company[88]

Owner	Mercury emissions from top 25 plants (in lbs.)
Luminant	7,099
American Electric Power	5,589
RRI Energy Inc.	5,295
NRG Energy	2,935
Northern Star Generation	1,644
Dominion	1,571
San Miguel Electric Cooperative Inc.	1,560
Puget Sound Energy	1,490
APS Inc.	1,481
Southern Company	1,354
Ameren UE	1,297
Detroit Edison	1,235
DPL Energy	1,234
Progress Energy	1,079
FirstEnergy	1,023
Total	35,886

Protecting Our World and Our Health: Cleaning up the Dirtiest Source of Pollution

Moving Forward with the EPA

Mercury pollution from power plants poses significant threats to our environment and our health. Fortunately, the Obama Administration's EPA is set to issue a strong standard to limit this dangerous pollutant.

Under the Clean Air Act, the EPA will develop a standard to clean up mercury pollution and other air toxics from new and existing oil and coal-fired power plants. After years of unlawfulness and inaction by the Bush administration's EPA, the Obama administration's EPA is now under court order to set this standard by March.

The Bush administration's EPA set illegal and severely flawed standards for mercury that would have allowed power plants to continue to emit high levels of the toxicant. Portions of the Bush EPA rules were taken word-for-word from industry memos, and they flew in the face of all of the scientific evidence about the hazards of mercury exposure. These standards were challenged and later struck down by the federal courts.[89] Scientists working for the Bush administration's EPA frequently complained of political interference with their overall work, and in 2007, the Union of Concerned Scientists reported that nearly two-thirds of 1,586 staff EPA scientists who responded to a questionnaire reported such interference.[90] More than 500 EPA scientists knew of "many" or "some" cases "where EPA political appointees had inappropriately involved themselves in scientific decisions."[91]

Currently, the Obama administration's EPA is set to propose the "Electric Generating Unit Maximum Achievable Control Technology," or utility MACT standard, to limit air toxics including mercury by mid-March 2011, with the final rule due out by November.

Recommendations

The EPA should implement the strongest standards possible to protect our health and our environment from mercury pollution, using science and the regulatory tools they have at hand.

Through the utility MACT – referred to as the air toxics standard – the EPA can limit hazardous emissions of mercury and other air toxics from power plants. The EPA must set the standard based on the performance of the lowest-emitting sources in the industry, using data collected over the past year. These low emission levels set a baseline that all newly-built power plants must achieve. Existing power plants must meet a level of emission control achieved by the top 12% of facilities.[92] The standard provides a 3 year implementation period for the existing source standards, with the possibility of a one year extension.[93]

A highly-advanced technology, activated carbon injection, has been used by plants to reduce mercury emissions for decades. Particles of activated carbon are injected into power plants, downstream of their boilers. The mercury then attaches to the carbon particles and is removed. Power plants further utilize activated carbon injection systems combined with fabric filters as a way to enhance mercury removal. Fabric filters, also known as baghouses, filter out mercury from the flue gas streams of power plants.[94],[95]

The implementation of the air toxics standard and the increased use of mercury-reduction technology should significantly reduce the amount of mercury and other air toxics emitted by power plants, which in turn will result in less mercury contamination in waterways, in wildlife, and in the bodies of children and adults. Overall, fewer children could face impaired brain functions and verbal, attention, motor control, and language deficits due to mercury pollution from power plants.[96]

A strong air toxics standard would also decrease the number of wildlife that suffer reproductive failure and die due to mercury exposure from power plants. In places like Minnesota, certain lakes contain fish that have ten times the concentration of mercury in their bodies than fish that swam there in the 1930s.[97] A

strong air toxics standard would effectively lower the amount of mercury currently found in these fish, and as a result, increase the overall population of healthy and reproductively-successful fish. A study conducted by the Florida Department of Environmental Protection found that when mercury emissions in southern Florida declined by close to 99% as a result of pollution prevention and control policies, mercury in fish and wildlife declined by approximately 60%.[98]

Statewide Initiatives

In the absence of strong action from the EPA, states have taken initiative and helped to protect against mercury pollution. As the table below lists, 19 states have enacted statewide mercury limits for power plants.[99]

Statewide action has helped to lower the amount of mercury pollution harming human beings and wildlife. For instance, in 2006, Maryland passed the Healthy Air Act, a standard to reduce mercury pollution from coal-fired plants by 80% by 2010 and 90% by 2013.[100] Scientists estimate that more than one-third of the pollution entering the Chesapeake Bay comes from the air, so emission standards for Maryland power plants will significantly reduce Bay wildlife suffering from the effects of mercury contamination.[101]

States with Mercury Emission Reduction Standards for Power Plants[102]

Colorado	Montana
Connecticut	New Hampshire
Delaware	New Jersey
Georgia	New Hampshire
Illinois	New York
Indiana	North Carolina
Maryland	Oregon
Massachusetts	South Carolina
Michigan	Wisconsin
Minnesota	

(See appendix G for full explanation of states' mercury emission reduction standards for power plants)

A Mandatory Step: Moving Beyond State Action

We must take action to promote the United States' transition away from dangerous power plants, and the life-threatening pollution they emit, to a clean energy economy. In addition to state-level limits on mercury pollution from power plants, the United States, as well as individual states can:

- help ensure that America generates at least 25 percent of its electricity from renewable sources of energy such as wind and solar by 2025 through a renewable energy standard;

- strengthen energy efficiency standards and codes for appliances and buildings by 50 percent by 2020 and ensure that all new buildings use zero net energy by 2030;

- ramp up investment in solar power through tax credits, specific targets in state renewable electricity standards, requirements for "solar ready homes," rebate programs, and other measures; and

- end subsidies to fossil fuel industries.

31 states do not regulate dangerous mercury pollution from power plants.[103] Not surprisingly, many of the states that have the highest levels of mercury pollution from power plants are those that don't demand statewide regulation, like Texas, Pennsylvania[a], and Ohio.

Mercury pollution doesn't respect state boundaries. While 19 states have already enacted statewide mercury limits for power plants, the EPA must set a strong federal standard that cuts mercury from power plants by more than 90%, because mercury pollution travels beyond state boundaries and puts all Americans at risk of its harmful effects.

The United States has the opportunity to set standards that will protect our health and the health of our environment, and in turn, develop a thriving economy based upon renewable energy. In order to make strides to reduce pollution, ensure healthier families and children, and protect our environment, we must clean up power plants nationwide.

Methodology

To analyze power plant mercury emissions by state, we took data from the Environmental Protection Agency's Toxics Release Inventory (TRI). We used the most recent data available from 2009 for mercury and mercury compound emissions from electric utilities. We generated tables using the EPA's tool, TRI Explorer (available at www.epa.gov/triexplorer/). The TRI database is comprised of data on emissions of toxic chemicals annually, as reported by facilities. Because some facilities are not required to report mercury emissions to the TRI, such as those that emit fewer than 10 pounds of mercury annually, our analysis covers only those reported to TRI.

We ranked all states and power plants according to their total mercury emissions in 2009, and broke down emissions data by state and ranked power plants in each state according to their mercury emissions. We also used data from the Energy Information Administration's Form 860 to find the owner of each plant ranked in the top 25 worst mercury-polluting power plants, and broke down the total emissions for each company who owned one or more plants in the top 25 (e.g. Luminant owns four plants in the top 25, and is responsible for 7,099 pounds of mercury emissions in 2009).

Additionally, we took data from states' environmental websites to assess the status of statewide mercury regulation and assimilated that information into a single chart (see Appendix G).

[a] On December 23, 2009, Pennsylvania actually overturned a rule that would limit mercury pollution from power plants beginning January 1, 2010. The Pennsylvania Supreme Court's decision put an end to state efforts to specially regulate mercury emissions from power plants – through the Pennsylvania Mercury Rule – at least until the EPA promulgates new federal mercury regulations, or until other state legislation is passed.

Appendices

Appendix A: Mercury Pollution from Power Plants 2000-2009[104]

Year	Mercury (lbs.)	Mercury compounds (lbs.)	Total (lbs.)
2000	6,049	105,973	112,022
2001	7,708	146,738	154,446
2002	7,435	141,053	148,488
2003	7,788	138,773	146,561
2004	7,891	141,387	149,278
2005	5,923	147,013	152,936
2006	6,681	143,148	149,829
2007	6,633	146,763	153,396
2008	6,987	144,754	151,741
2009	6,282	132,324	134,365

Appendix B: Electric Utilities in the United States Ranked by Pounds of Mercury Emitted in 2009[105]

Rank	Facility	City	State	Zip Code	Total mercury emissions (in lbs.)
1	MARTIN LAKE STEAM ELECTRIC STATION & LIGNITE MINE	Tatum	TX	75691	2,660
2	RRI ENERGY INC KEYSTONE POWER PLANT	Shelocta	PA	15774	2,164
3	AMERICAN ELECTRIC POWER GAVIN PLANT	Cheshire	OH	45620	2,099
4	RRI ENERGY INC CONEMAUGH POWER PLANT	New Florence	PA	15944	2,060
5	MONTICELLO STEAM ELECTRIC STATION & LIGNITE MINE	Mount Pleasant	TX	75455	1,828
6	SCHERER STEAM ELECTRIC GENERATING PLANT	Juliette	GA	31046	1,649
7	LIMESTONE ELECTRIC GENERATING STATION	Jewett	TX	75846	1,647
8	CAMBRIA COGEN CO	Ebensburg	PA	15931	1,644
9	DOMINION MOUNT STORM POWER STATION	Mount Storm	WV	26739	1,571
10	SAN MIGUEL ELECTRIC COOPERATIVE INC	Christine	TX	78012	1,560
11	COLSTRIP STEAM ELECTRIC STATION	Colstrip	MT	59323	1,490
12	FOUR CORNERS STEAM ELECTRIC STATION	Fruitland	NM	87416	1,481
13	BIG BROWN STEAM ELECTRIC STATION & LIGNITE MINE	Fairfield	TX	75840	1,426
14	MILLER STEAM PLANT	Quinton	AL	35130	1,354
15	AMERENUE LABADIE POWER PLANT	Labadie	MO	63055	1,297
16	WA PARISH ELECTRIC GENERATIN G STATION	Thompsons	TX	77481	1,289
17	DETROIT EDISON MONROE POWER PLANT	Monroe	MI	48161	1,235
18	JM STUART STATION	Manchester	OH	45144	1,234
19	AMERICAN ELECTIC POWER ROCKPORT PLANT	Rockport	IN	47635	1,226
20	SANDOW STEAM ELECTRIC STATION	Rockdale	TX	76567	1,185
21	AMERICAN ELECTRIC POWER HW PIRKEY POWER PLANT	Hallsville	TX	75650	1,154
22	AMERICAN ELECTRIC POWER AMOS PLANT	Winfield	WV	25213	1,110
23	CAROLINA POWER & LIGHT CO - ROXBORO STEAM ELECTRIC PLANT	Semora	NC	27343	1,079
24	RRI ENERGY INC SHAWVILLE STATION	Shawville	PA	16873	1,071
25	BRUCE MANSFIELD POWER PLANT	Shippingport	PA	15077	1,023

Rank	Facility	City	State	Zip	Mercury
26	SALT RIVER PROJECT NAVAJO GENERATING STATION	Page	AZ	86040	991
27	CAROLINA POWER & LIGHT CO-ASHEVILLE PLANT	Arden	NC	28704	973
28	OMAHA PUBLIC POWER DISTRICT NEBRASKA CITY STATION	Nebraska City	NE	68410	953
29	HARRISON POWER STATION	Haywood	WV	26366	934
30	SPURLOCK POWER STATION	Maysville	KY	41056	921
31	BIG CAJUN 2	New Roads	LA	70760	907
32	EBENSBURG POWER CO	Ebensburg	PA	15931	901
33	AMERICAN ELECTRIC POWER KAMMER / MITCHELL PLANTS	Moundsville	WV	26041	899
34	COAL CREEK STATION	Underwood	ND	48476	897
35	AMERICAN ELECTRIC POWER CARDINAL PLANT	Brilliant	OH	43913	894
36	SPRINGERVILLE GENERATING STATION	Springerville	AZ	85938	882
37	MINNKOTA POWER COOPERATIVE INC MILTON R YOUNG STATION	Center	ND	58530	872
38	XCEL ENERGY SHERBURNE COUNTY GENERATING PLANT	Becker	MN	55308	867
39	MARSHALL STEAM STATION	Terrell	NC	28682	859
40	AMERICAN ELECTRIC POWER CONESVILLE PLANT	Conesville	OH	43811	837
41	AMERICAN ELECTRIC POWER MOUNTAINEER PLANT	New Haven	WV	25265	811
42	INTERMOUNTAIN POWER GENERATING STATION	Delta	UT	84624	809
43	LOUISVILLE GAS & ELECTRIC CO - MILL CREEK STATION	Louisville	KY	40272	787
44	BLACK HILLS CORP - NEIL SIMPSON COMPLEX	Gillette	WY	82718	787
45	IPL PETERSBURG	Petersburg	IN	47567	751
46	EME HOMER CITY GENERATION LP	Homer City	PA	15748	738
47	SCRUBGRASS GENERATING PLANT	Kennerdell	PA	16374	714
48	MIDAMERICAN ENERGY CO WALTER SCOTT JR ENERGY CENTER	Council Bluffs	IA	51501	709
49	GORGAS STEAM PLANT	Parrish	AL	35580	707
50	BIG RIVERS ELECTRIC CORP REID/GREEN/ HMP&L STATION II	Robards	KY	42452	691
51	OPTIM ENERGY LP TWIN OAKS	Bremond	TX	76629	686
52	MORGANTOWN GENERATING STATION	Newburg	MD	20664	685

Rank	Facility	City	State	Zip	Mercury
53	GREAT PLAINS ENERGYLACYGNE GENERATING STATION	La Cygne	KS	66040	679
54	HATFIELD POWER STATION	Masontown	PA	15461	666
55	MEROM GENERATING STATION	Sullivan	IN	47882	661
56	CHESTERFIELD POWER STATION	Chester	VA	23836	660
57	BASIN ELECTRIC LARAMIE RIVER STATION	Wheatland	WY	82201	660
58	GERALD GENTLEMAN STATION	Sutherland	NE	69165	660
59	GASTON STEAM PLANT	Wilsonville	AL	35186	657
60	COLVER POWER PROJECT	Colver	PA	15927	639
61	EDISON INTERNATIONAL POWERTON GENERATING STATION	Pekin	IL	61554	635
62	NIPSCO RMSCHAHFER GENERATING STATION	Wheatfield	IN	46392	632
63	CORONADO GENERATING STATION	Saint Johns	AZ	85936	631
64	COLUMBIA ENERGY CENTER	Pardeeville	WI	53954	627
65	US TVA CUMBERLAND FOSSIL PLANT	Cumberland City	TN	37050	621
66	JEFFREY ENERGY CENTER	Saint Marys	KS	66536	618
67	SAN JUAN GENERATING STATION	Waterflow	NM	87421	610
68	W H SAMMIS PLANT	Stratton	OH	43961	597
69	BOWEN STEAM ELECTRIC GENERATING PLANT	Cartersville	GA	30120	584
70	AMERICAN ELECTRIC POWER BIG SANDY PLANT	Louisa	KY	41230	582
71	INDEPENDENCE STEAM ELECTRIC STATION	Newark	AR	72562	582
72	PLEASANT PRAIRIE POWER PLANT	Pleasant Prairie	WI	53158	571
73	PACIFICORP WYODAK PLANT	Gillette	WY	82718	570
74	WHITE BLUFF GENERATING PLANT	Redfield	AR	72132	559
75	PACIFICORP HUNTER PLANT	Castle Dale	UT	84513	555
76	AMERENUE RUSH ISLAND POWER STATION	Festus	MO	63028	553
77	J H CAMPBELL GENERATING PLANT	West Olive	MI	49460	553
78	CITY OF PAINESVILLE POWER PLANT	Painesville	OH	44077	546
79	PACIFICORP JIM BRIDGER PLANT & BRIDGER COAL CO	Point of Rocks	WY	82942	544
80	ST JOHNS RIVER POWER PARK/NORTHSIDE GENERATING STATION	Jacksonville	FL	32226	532
81	KENTUCKY UTILITIES CO GHENT STATION	Ghent	KY	41045	516
82	AMEREN ENERGY GENERATING NEWTON POWER STATION	Newton	IL	62448	516
83	GULF POWER CO - PLANT CRIST	Pensacola	FL	32514	513

Rank	Facility	City	State	Zip	Mercury
84	DOMINION KINCAID GENERATION LLC	Kincaid	IL	62540	506
85	AMERICAN ELECTRIC POWER MUSKINGUM RIVER PLANT	Beverly	OH	45715	505
86	AES WARRIOR RUN INC	Cumberland	MD	21502	504
87	CLIFTY CREEK STATION	Madison	IN	47250	504
88	CHOCTAW GENERATION LP	Ackerman	MS	39735	500
89	DUKE ENERGY CORP GIBSON GENERATING STATION	Owensville	IN	47665	499
90	SEMINOLE GENERATING STATION	Palatka	FL	32177	499
91	JOLIET GENERATING STATION (#9 & #29)	Joliet	IL	60436	493
92	FLORIDA POWER CORP CRYSTAL RIVER ENERGY COMPLEX	Crystal River	FL	34428	488
93	BARRY STEAM PLANT	Bucks	AL	36512	483
94	WESTERN FARMERS ELECTRIC COOP	Hugo	OK	73005	476
95	BASIN ELECTRIC ANTELOPE VALLEY STATION	Beulah	ND	58523	473
96	AMERICAN ELECTRIC POWER WELSH PLANT	Pittsburg	TX	54686	465
97	SAINT NICHOLAS COGENERATION PROJECT	Shenandoah	PA	17976	464
98	RRI ENERGY INC AVON LAKE POWER PLANT	Avon Lake	OH	44012	463
99	ALABAMA POWER CO GREENE COUNTY STEAM PLANT	Forkland	AL	36740	462
100	PANTHER CREEK PARTNERS	Nesquehoning	PA	18240	460
101	OMAHA PUBLIC POWER DISTRICT NORTH OMAHA STATION	Omaha	NE	68112	458
102	KYGER CREEK STATION	Cheshire	OH	45620	452
103	CALAVERAS POWER STATION	San Antonio	TX	78263	440
104	BRANCH STEAM ELECTRIC GENERATING PLANT	Milledgeville	GA	31061	437
105	WANSLEY STEAM ELECTRIC GENERATING PLANT	Carrollton	GA	30116	432
106	DUKE ENERGY CORP BELEWS CREEK STEAM STATION	Belews Creek	NC	27009	432
107	MIDAMERICAN ENERGY CO GEORGE NEAL NORTH	Sergeant Bluff	IA	51054	429
108	DOMINION CLOVER POWER STATION	Clover	VA	24534	427
109	AES SHADY POINT LLC	Panama	OK	74951	420
110	LCRA FAYETTE POWER PROJECT	La Grange	TX	78945	417
111	DETROIT EDISON BELLE RIVER POWER PLANT (PART)	China Township	MI	48054	412
112	CHOLLA POWER PLANT	Joseph City	AZ	86032	411

Rank	Facility	City	State	Zip	Mercury
113	DYNEGY MIDWEST GENERATION INC BALDWIN ENERGY COMPLEX	Baldwin	IL	62217	403
114	DETROIT EDISON ST CLAIR POWER PLANT	East China Township	MI	48054	395
115	PACIFICORP DAVE JOHNSTON PLANT	Glenrock	WY	82637	385
116	DOLET HILLS POWER STATION	Mansfield	LA	71052	383
117	BRANDON SHORES & WAGNER COMPLEX	Baltimore	MD	21226	381
118	WESTON POWER PLANT	Rothschild	WI	54474	378
119	EDGEWATER GENERATING STATION	Sheboygan	WI	53081	375
120	US TVA PARADISE FOSSIL PLANT	Drakesboro	KY	42337	370
121	RRI ENERGY INC PORTLAND POWER PLANT	Mount Bethel	PA	18343	369
122	MIDAMERICAN ENERGY-LOUISA GENERATING STATION	Muscatine	IA	52761	367
123	GRAND RIVER DAM AUTHORITY COAL FIRED COMPLEX	Chouteau	OK	74337	364
124	CHALK POINT GENERATING STATION	Aquasco	MD	20608	364
125	TRANSALTA CENTRALIA GENERATION / MINING	Centralia	WA	98531	361
126	US TVA ALLEN FOSSIL PLANT	Memphis	TN	38109	360
127	DAYTON POWER & LIGHT CO KILLEN STATION	Manchester	OH	45144	358
128	COLETO CREEK POWER STATION	Fannin	TX	77960	354
129	FORT MARTIN POWER STATION	Maidsville	WV	26541	352
130	THOMAS HILL ENERGY CENTER - POWER DIV	Clifton Hill	MO	65244	351
131	YATES STEAM ELECTRIC GENERATING PLANT	Newnan	GA	30263	349
132	OTTER TAIL POWER CO COYOTE STATION	Beulah	ND	58523	345
133	US TVA GALLATIN FOSSIL PLANT	Gallatin	TN	37066	344
134	STANTON ENERGY CENTER	Orlando	FL	32831	341
135	CROSS GENERATING STATION	Pineville	SC	29468	338
136	AMERENUE MERAMEC POWER PLANT	Saint Louis	MO	63129	336
137	U.S. TVA SHAWNEE FOSSIL PLANT	West Paducah	KY	42086	332
138	WILL COUNTY GENERATING STATION	Romeoville	IL	60446	331
139	FIRSTENERGY CORP EASTLAKE PLANT	Eastlake	OH	44095	331
140	AMERENUE SIOUX POWER STATION	West Alton	MO	63386	329
141	OTTUMWA GENERATING STATION	Ottumwa	IA	52501	323
142	WAUKEGAN GENERATING STATION	Waukegan	IL	60087	322
143	DUKE ENERGY BECKJORD GENERATING STATION	New Richmond	OH	45157	317
144	US TVA WIDOWS CREEK FOSSIL PLANT	Stevenson	AL	35772	313

Rank	Facility	City	State	Zip	Mercury
145	CAROLINA POWER & LIGHT CO - MAYO ELECTRIC GENERATING PLANT	Roxboro	NC	27574	310
146	OTTER TAIL POWER CO BIG STONE PLANT	Big Stone City	SD	57216	310
147	PUBLIC SERVICE CO OF COLORADO COMANCHE STATION	Pueblo	CO	81006	309
148	AMERICAN ELECTRIC POWER TANNERS CREEK PLANT	Lawrenceburg	IN	47025	306
149	BASIN ELECTRIC LELAND OLDS STATION	Stanton	ND	58571	303
150	MONTOUR STEAM ELECTRIC STATION	Danville	PA	17821	295
151	EXCEL ENERGY A. S. KING GENERATING PLANT	Bayport	MN	55003	295
152	SOUTHWESTERN PUBLIC SERVICE CO HARRINGTON STATION	Amarillo	TX	79108	294
153	ELECTRIC ENERGY INC	Joppa	IL	62953	293
154	US TVA JOHN SEVIER FOSSIL PLANT	Rogersville	TN	37857	291
155	IATAN GENERATING STATION	Weston	MO	64098	291
156	HOLCOMB UNIT 1	Holcomb	KS	67851	289
157	GULF POWER CO PLANT LANSING SMITH	Southport	FL	32409	278
158	DETROIT EDISON CO TRENTON CHANNEL POWER PLANT	Trenton	MI	48183	277
159	MUSKOGEE GENERATING STATION	Fort Gibson	OK	74434	277
160	LOUISVILLE GAS & ELECTRIC CO - TRIMBLE COUNTY STATION	Bedford	KY	40006	273
161	BIG RIVERS ELECTRIC CORP WILSON STATION	Centertown	KY	42328	272
162	BOSWELL ENERGY CENTER	Cohasset	MN	55721	270
163	DUKE ENERGY CORP CAYUGA GENERATING STATION	Cayuga	IN	47928	270
164	MIDAMERICAN ENERGY-GEORGE NEAL SOUTH	Salix	IA	51052	268
165	MORGANTOWN ENERGY ASSOCIATES	Morgantown	WV	26505	265
166	BRUNNER ISLAND STEAM ELECTRIC STATION	York Haven	PA	17370	265
167	GIBBONS CREEK STEAM STATION	Anderson	TX	77830	260
168	BIG RIVERS ELECTRIC CORP COLEMAN STATION	Hawesville	KY	42348	253
169	US TVA JOHNSONVILLE FOSSIL PLANT	New Johnsonville	TN	37134	249
170	SOUTHWESTERN PUBLIC SERVICE CO TOLK STATION	Earth	TX	79031	248

Rank	Facility	City	State	Zip	Mercury
171	DE KARN JC WEADOCK GENERATING PLANT	Essexville	MI	48732	245
172	US TVA BULL RUN FOSSIL PLANT	Clinton	TN	37716	237
173	MIRANT DICKERSON GENERATING STATION	Dickerson	MD	20842	237
174	R D MORROW SR GENERATING PLANT	Purvis	MS	39475	234
175	CHESWICK POWER PLANT	Springdale	PA	15144	232
176	AMERICAN ELECTRIC POWER PHILIP SPORN PLANT	New Haven	WV	25265	229
177	OAK CREEK POWER PLANT	Oak Creek	WI	53154	227
178	ARIZONA ELECTRIC POWER COOPERATIVE INC.	Cochise	AZ	85606	227
179	GENCO WILLIAMS STATION	Goose Creek	SC	29445	226
180	PLEASANTS WILLOW ISLAND POWER STATIONS	Willow Island	WV	26134	224
181	NORTHEASTERN POWER CO	McAdoo	PA	18237	223
182	AMEREN ENERGY RESOURCES GENERATING CO	Bartonville	IL	61607	221
183	AMERICAN ELECTRIC POWER NORTHEASTERN PLANT	Oologah	OK	74053	220
184	AMEREN ENERGY GENERATING COFFEEN POWER STATION	Coffeen	IL	62017	215
185	DETROIT EDISON -RIVER ROUGE POWER PLANT	River Rouge	MI	48218	215
186	MERRIMACK STATION	New Hampshire	NH	03304	214
187	HAMMOND STEAM ELECTRIC GENERATING PLANT	Rome	GA	30165	209
188	BOARDMAN PLANT	Boardman	OR	97818	207
189	CLIFFSIDE STEAM STATION	Mooresboro	NC	28114	206
190	SIGECO A B BROWN GENERATING STATION	Mount Vernon	IN	47620	205
191	DUKE ENERGY CORP MIAMI FORT GENERATING STATION	North Bend	OH	45052	205
192	PACIFICORP ENERGY HUNTINGTON PLANT	Huntington	UT	84528	205
193	OAK GROVE STEAM ELECTRIC STATION	Franklin	TX	77856	204
194	MISSISSIPPI POWER CO - PLANT DANIEL	Escatawpa	MS	39552	204
195	CAROLINA POWER & LIGHT CO - L V SUTTON ELECTRIC PLANT	Wilmington	NC	28401	201
196	DUKE ENERGY CORP ZIMMER GENERATING STATION	Moscow	OH	45153	198
197	RODEMACHER POWER STATION	Lena	LA	71447	197

Rank	Facility	City	State	Zip	Mercury
198	ENTERGY ROY S NELSON PLANT	Westlake	LA	70669	197
199	WHEELABRATOR FRACKVILLE ENERGY CO INC	Frackville	PA	17931	196
200	OGE ENERGY CORP SOONER GENERATING STATION	Red Rock	OK	74651	194
201	LOUISVILLE GAS & ELECTRIC CO - CANE RUN STATION	Louisville	KY	40216	192
202	IPL HARDING STREET STATION	Indianapolis	IN	46217	190
203	DAIRYLAND POWER COOPERATIVE-ALMA SITE	Alma	WI	54610	189
204	KENTUCKY UTILITIES CO - E W BROWN STATION	Harrodsburg	KY	40330	188
205	CEDAR BAY GENERATING CO LP	Jacksonville	FL	32218	183
206	LAWRENCE ENERGY CENTER	Lawrence	KS	66044	180
207	SOUTH CAROLINA ELECTRIC & GAS CO COPE STATION	Cope	SC	29038	179
208	MONTROSE GENERATING STATION	Clinton	MO	64735	177
209	CRAWFORD GENERATING STATION	Chicago	IL	60623	176
210	EDDYSTONE GENERATING STATION	Eddystone	PA	19022	176
211	NEW CASTLE POWER PLANT	West Pittsburg	PA	16160	175
212	EAST BEND GENERATING STATION	Rabbit Hash	KY	41091	172
213	AES THAMES LLC	Uncasville	CT	06382	172
214	NEBRASKA PUBLIC POWER DISTRICT SHELDON STATION	Hallam	NE	68368	170
215	DUNKIRK STEAM STATION	Dunkirk	NY	14048	170
216	LANSING POWER STATION	Lansing	IA	52151	169
217	CAROLINA POWER & LIGHT CO - H F LEE STEAM ELECTRIC PLANT	Goldsboro	NC	27530	168
218	PUBLIC SERVICE CO OF COLORADO PAWNEE STATION	Brush	CO	80723	166
219	ALLEGHENY ENERGY INC ARMSTRONG POWER STATION	Kittanning	PA	16201	165
220	US TVA KINGSTON FOSSIL PLANT	Harriman	TN	37748	163
221	CHESAPEAKE ENERGY CENTER	Chesapeake	VA	23323	162
222	WABASH RIVER GENERATING STATION	West Terre Haute	IN	47885	161
223	ASSOCIATED ELECTRIC COOPERATIVE INC NEW MADRID POWER PLANT	Marston	MO	63866	160
224	COLORADO SPRINGS UTILITIES RAY NIXON POWER PLANT	Fountain	CO	80817	155

Rank	Facility	City	State	Zip	Mercury
225	MISSISSIPPI POWER CO - PLANT WATSON	Gulfport	MS	39502	153
226	TRI-STATE GENERATION & TRANSMISSION - CRAIG STATION	Craig	CO	81626	150
227	BONANZA POWER PLANT	Vernal	UT	84078	150
228	PRESQUE ISLE POWER PLANT	Marquette	MI	49855	146
229	NIPSCO MICHIGAN CITY GENERATING STATION	Michigan City	IN	46360	145
230	COOPER POWER STATION	Burnside	KY	42519	145
231	SUNBURY GENERATION LP	Shamokin Dam	PA	17876	145
232	MIRANT POTOMAC RIVER GENERATING STATION	Alexandria	VA	22314	145
233	GILBERTON POWER CO	Frackville	PA	17931	144
234	AES SOMERSET LLC	Barker	NY	14012	143
235	AMERICAN ELECTRIC POWER KANAWHA RIVER PLANT	Glasgow	WV	25086	140
236	SCHILLER STATION	Portsmouth	NH	03801	137
237	MUSCATINE POWER & WATER GENERATION	Muscatine	IA	52761	137
238	BURLINGTON GENERATING STATION	Burlington	IA	52601	133
239	CP CRANE GENERATING STATION	Baltimore	MD	27559	133
240	CAROLINA POWER & LIGHT CO - CAPE FEAR STEAM ELECTRIC PLANT	Moncure	NC	27559	130
241	DYNEGY WOOD RIVER POWER STATION	Alton	IL	62002	128
242	US TVA COLBERT FOSSIL PLANT	Tuscumbia	AL	35674	128
243	INDIAN RIVER GENERATING STATION	Dagsboro	DE	19939	127
244	JR WHITING GENERATING PLANT	Erie	MI	48133	126
245	SOUTHERN ILLINOIS POWER COOPER ATIVE	Marion	IL	62959	125
246	SIGECO F B CULLEY GENERATING STATION	Newburgh	IN	47630	124
247	OWENSBORO MUNICIPAL UTILITIES ELMER SMITH STATION	Owensboro	KY	42303	120
248	SANDOW 5 GENERATING PLANT	Rockdale	TX	76567	120
249	SPRUANCE GENCO LLC	Richmond	VA	23234	119
250	REID GARDNER GENERATING STATION	Moapa	NV	89025	119
251	AMERICAN ELECTRIC POWER FLINT CREEK PLANT	Gentry	AR	72734	118
252	AMERICAN MUNICIPAL POWER RICHARD H GORSUCH STATION	Marietta	OH	45750	116
253	CHARLES R LOWMAN POWER PLANT	Leroy	AL	36548	115
254	AMERICAN ELECTRIC POWER OKLAUNION PLANT	Vernon	TX	76384	114

Rank	Facility	City	State	Zip	Mercury
255	DUKE ENERGY CORP PLANT ALLEN	Belmont	NC	28012	114
256	FISK GENERATING STATION	Chicago	IL	60608	113
257	PUBLIC SERVICE CO OF COLORADO HAYDEN STATION	Hayden	CO	81639	113
258	MCDONOUGH/ATKINSON STEAM ELECTRIC GENERATING PLANT	Smyrna	GA	30080	113
259	ROANOKE VALLEY ENERGY FACILITY	Weldon	NC	27890	112
260	LANSING BOARD OF WATER & LIGHT -ECKERT	Lansing	MI	48901	112
261	DOMINION RESOURCES INC BREMO POWER STATION	Bremo Bluff	VA	23022	111
262	TAMPA ELECTRIC CO BIG BEND POWER STATION	Apollo Beach	FL	33572	111
263	AMERICAN ELECTRIC POWER CLINCH RIVER PLANT	Cleveland	VA	24225	111
264	PINEY CREEK LP	Clarion	PA	16214	110
265	WINYAH GENERATING STATION	Georgetown	SC	29440	110
266	PACIFICORP NAUGHTON PLANT	Kemmerer	WY	83101	110
267	ALLEGHENY ENERGY INC ALBRIGHT POWER STATION	Albright	WV	26519	107
268	DUKE ENERGY CORP GALLAGHER GENERATING STATION	New Albany	IN	47150	106
269	NEWMONT NEVADA ENERGY INVESTMENT LLC	Beowawe	NV	89821	104
270	PULLIAM POWER PLANT	Green Bay	WI	54303	103
271	HUNTLEY GENERATING STATION	Tonawanda	NY	14150	103
272	FLORIDA CRUSHED STONE CO	Brooksville	FL	34601	101
273	AES BEAVER VALLEY LLC	Monaca	PA	15061	101
274	AMERICAN BITUMINOUS POWER PARTNERS LP	Grant Town	WV	26574	101
275	AMEREN ENERGY RESOURCES GENERATING CO	Canton	IL	61520	100
276	EDGE MOOR/HAY ROAD POWER PLANTS	Wilmington	DE	19809	100
277	DANSKAMMER GENERATING FACILITY	Newburgh	NY	12550	99
278	BAYSHORE PLANT	Oregon	OH	43616	97
279	KANSAS CITY BPU QUINDARO POWER STATION	Kansas City	KS	66104	97
280	HENNEPIN POWER STATION	Hennepin	IL	61327	96
281	COLORADO SPRINGS UTILITIES MARTIN DRAKE POWER PLANT	Colorado Springs	CO	80903	96
282	MANITOWOC PUBLIC UTILITIES	Manitowoc	WI	54220	94

Rank	Facility	City	State	Zip	Mercury
283	SOUTHWEST POWER STATION	Springfield	MO	65807	93
284	CAROLINA POWER & LIGHT CO - H B ROBINSON S E P	Hartsville	SC	29550	90
285	DOMINION RESOURCES INC YORKTOWN POWER STATION	Yorktown	VA	23692	90
286	LOGAN GENERATING CO LP	Swedesboro	NJ	08085	89
287	AES-CAYUGA LLC	Lansing	NY	14882	88
288	MOUNT CARMEL COGEN FACILITY	Marion Heights	PA	17832	88
289	MITCHELL POWER STATION	Courtney	PA	15067	86
290	GADSDEN STEAM PLANT	Gadsden	AL	35903	85
291	SUNNYSIDE COGENERATION ASSOCIATES	Sunnyside	UT	84539	85
292	JE CORETTE STEAM ELECTRIC ST ATION	Billings	MT	59107	85
293	BC COBB GENERATING PLANT	Muskegon	MI	49445	85
294	HAVANA POWER STATION	Havana	IL	62644	85
295	DOMINION ENERGY BRAYTON POINT LLC	Somerset	MA	02726	84
296	RAWHIDE ENERGY STATION	Wellington	CO	80549	84
297	EXCEL ENERGY BLACK DOG GENERATING PLANT	Burnsville	MN	55337	84
298	TRI-STATE GENERATION & TRANSMISSION - ESCALANTE STATION	Prewitt	NM	87045	82
299	INDIANTOWN COGENERATION LP	Indiantown	FL	34956	82
300	CITY WATER LIGHT & POWER CITY OF SPRINGFIELD	Springfield	IL	62707	82
301	HAWTHORN GENERATING FACILITY	Kansas City	MO	64120	82
302	UGI DEVELOPMENT CO HUNLOCK POWER STATION	Hunlock Creek	PA	18621	81
303	. 142 WATEREE STATION RD, EASTOVER, South Carolina 29044 (RICHLAND)	Eastover	SC	29044	81
304	NEARMAN CREEK POWER STATION	Kansas City	KS	66104	77
305	NORTH VALMY STATION	Valmy	NV	89438	75
306	SIKESTON POWER STATION	Sikeston	MO	63801	74
307	CHAMBERS COGENERATION LP	Carneys Point	NJ	08069	73
308	DALE POWER STATION	Winchester	KY	40391	72
309	FRANK E RATTS GENERATING STAT ION	Petersburg	IN	47567	71
310	DAIRYLAND POWER COOPERATIVE - GENOA SITE	Genoa	WI	54632	71
311	AES HAWAII INC	Kapolei	HI	96707	71
312	TECUMSEH ENERGY CENTER	Tecumseh	KS	66542	70

Rank	Facility	City	State	Zip	Mercury
313	HARDIN GENERATING STATION	Hardin	MT	59034	70
314	NIPSCO BAILLY GENERATING STATION	Chesterton	IN	46304	67
315	COGENTRIX ENERGY NORTHAMPTON GENERATING PLANT	Northampton	PA	18067	65
316	STATE LINE ENERGY LLC	Hammond	IN	46320	64
317	LANSING BOARD OF WATER & LIGHT -ERICKSON	Lansing	MI	48917	62
318	CITY OF ORRVILLE DEPT OF PUB LIC UTILITIES ELECTRIC DEPT	Orrville	OH	44667	62
319	GREAT RIVER ENERGY STANTON STATION	Stanton	ND	58571	62
320	LEWIS & CLARK STATION	Sidney	MT	59270	61
321	TACONITE HARBOR ENERGY CENTER	Schroeder	MN	55613	61
322	JAMES RIVER POWER STATION	Springfield	MO	65804	60
323	M L KAPP GENERATING STATION	Clinton	IA	52732	60
324	RM HESKETT STATION	Mandan	ND	58554	60
325	PUBLIC SERVICE CO OF COLORADO ARAPAHOE STATION	Denver	CO	80223	59
326	JAMES RIVER COGENERATION CO INC.	Hopewell	VA	23860	57
327	CD MCINTOSH JR POWER PLANT	Lakeland	FL	33805	55
328	KCP&L GREATER MISSOURI OPERATIONS SIBLEY GENERATING STATION	Sibley	MO	64088	54
329	BL ENGLAND GENERATING STATION	Beesleys Point	NJ	08223	54
330	DOMINION NORTH BRANCH POWER STATION	Gormania	WV	26720	53
331	MIRANT CANAL LLC	Sandwich	MA	02563	51
332	EMPIRE DISTRICT ELECTRIC CO ASBURY GENERATING STATION	Asbury	MO	64832	51
333	MIDAMERICAN ENERGY-RIVERSIDE GENERATING STATION	Bettendorf	IA	52722	48
334	TRI-STATE GENERATION & TRANSMISSION - NUCLA STATION	Nucla	CO	81424	47
335	NELSON DEWEY GENERATING STATION	Cassville	WI	53806	46
336	SAMUEL A CARLSON GENERATING STATION	Jamestown	NY	14701	46
337	MIDDLETOWN STATION	Middletown	CT	06457	46
338	PUBLIC SERVICE CO OF COLORADO VALMONT STATION	Boulder	CO	80302	45
339	DEGS OF NARROWS LLC	Narrows	VA	24124	44
340	KRAFT STEAM ELECTRIC GENERATING PLANT	Port Wentworth	GA	31407	44

Rank	Facility	City	State	Zip	Mercury
341	WHELAN ENERGY CENTER	Hastings	NE	68901	44
342	TES FILER CITY STATION	Filer City	MI	49634	44
343	BLACK HILLS ENERGY - WN CLARK STATION	Canon City	CO	81212	43
344	KENTUCKY UTILITIES CO GREEN RIVER STATION	Central City	KY	42330	43
345	R E BURGER PLANT	Shadyside	OH	43947	42
346	MECKLENBURG POWER STATION	Clarksville	VA	23927	42
347	DUKE ENERGY CORP RIVERBEND STEAM STATION	Mount Holly	NC	28120	41
348	AMEREN ENERGY GENERATING HUTSONVILLE POWER STATION	Hutsonville	IL	62433	41
349	IPL EAGLE VALLEY	Martinsville	IN	46151	40
350	VERMILION POWER STATION	Oakwood	IL	61858	39
351	CANADYS STATION	South Carolina	SC	29433	39
352	RRI ENERGY INC TITUS POWER PLANT	Birdsboro	PA	19508	39
353	GRAND HAVEN BOARD OF LIGHT &POWER JB SIMS GENERATING STATION	Grand Haven	MI	49417	39
354	RIVERTON GENERATING STATION	Riverton	KS	66770	37
355	DUKE ENERGY CORP LEE STEAM STATION	Belton	SC	29627	36
356	ASHTABULA POWER PLANT	Ashtabula	OH	44004	36
357	PLATTE GENERATING STATION	Grand Island	NE	68801	35
358	RRI ENERGY INC NILES POWER PLANT	Niles	OH	44446	33
359	BROOKLYN NAVY YARD COGENERATION FACILITY	Brooklyn	NY	11205	33
360	CITY OF FREMONT DEPARTMENT OF UTILITIES LON D WRIGHT POWER	Fremont	NE	68025	33
361	COGENTRIX VIRGINIA LEASING CORP	Portsmouth	VA	23703	32
362	XCEL ENERGY BAY FRONT PLANT	Ashland	WI	54806	32
363	CENTRAL IOWA POWER COOPERATIVE (CIPCO) - FAIR STATION	Muscatine	IA	52761	32
364	PACIFICORP CARBON PLANT	Helper	UT	84526	31
365	ACE COGENERATION FACILITY	Trona	CA	93652	31
366	MARTIN POWER PLANT	Indiantown	FL	34956	30
367	CAROLINA POWER & LIGHT CO - W H WEATHERSPOON PLANT	Lumberton	NC	28358	30
368	EXELON CORP CROMBY GENERATING STATION	Phoenixville	PA	19460	29
369	DUKE ENERGY CORP BUCK STEAM STATION	Spencer	NC	28159	28

Rank	Facility	City	State	Zip	Mercury
370	ALLEGHENY ENERGY INC R PAUL SMITH POWER STATION	Williams-port	MD	21795	28
371	FPL LAUDERDALE POWER PLANT	Fort Lauder-dale	FL	33314	28
372	BLACK HILLS CORP - OSAG E POWER PLANT	Osage	WY	82723	27
373	SYRACUSE ENERGY CORP	Syracuse	NY	13204	27
374	PSEG POWER LLC HUDSON GENERATING STATION	Jersey City	NJ	07306	27
375	SOUTH CAROLINA GAS & ELECTRIC URQU-HART GENERATION STATION	Beech Island	SC	29841	26
376	MOUNT TOM GENERATING CO LLC	Holyoke	MA	01040	26
377	INTERSTATE POWER & LIGHT CO SUTHER-LAND STATION	Marshall-town	IA	50158	25
378	OTTER TAIL POWER CO HOOT LAKE PLANT	Fergus Falls	MN	56537	25
379	AES WESTOVER	Johnson City	NY	13790	25
380	AURORA ENERGY LLC	Fairbanks	AK	99701	25
381	MARQUETTE BOARD OF LIGHT & POWER	Marquette	MI	49855	25
382	LASKIN ENERGY CENTER	Hoyt Lakes	MN	55750	25
383	DOYON UTILITIES FT WAINWRIGHT AK	Fort Wain-wright	AK	99703	24
384	TUSCOLA GENERATING FACILITY	Tuscola	IL	61953	24
385	AMEREN ENERGY GENERATING MEREDOSIA POWER STATION	Meredosia	IL	62665	24
386	AES GREENIDGE LLC	Dresden	NY	14441	24
387	WHITEWATER VALLEY GENERATING STATION	Richmond	IN	47374	24
388	HAWAIIAN ELECTRIC CO INC KAHE GENERAT-ING STATION	Kapolei	HI	96707	22
389	AMERICAN ELECTRIC POWER PICWAY PLANT	Lockbourne	OH	43137	22
390	RRI ENERGY INC ELRAMA POWER PLANT	Elrama	PA	15038	21
391	SHELBY MUNICIPAL LIGHT PLANT	Shelby	OH	44875	21
392	COLSTRIP ENERGY LP ROSEBUD POWER PLANT	Colstrip	MT	59323	20
393	MOBILE ENERGY SERVICES LLC	Mobile	AL	36610	20
394	AMERICAN ELECTRIC POWER GLEN LYN PLANT	Glen Lyn	VA	24093	19
395	FLORIDA POWER & LIGHT CO FPL MANATEE POWER PLANT	Parrish	FL	34219	19
396	BLACK HILLS CORP - BEN FRENCH POWER PLANT	Rapid City	SD	57702	18
397	CITY OF AMES. 200 E 5TH ST, AMES, Iowa 50010 (STORY)	Ames	IA	50010	18

Rank	Facility	City	State	Zip	Mercury
398	FORT MYERS POWER PLANT	Fort Myers	FL	33905	18
399	HIBBING PUBLIC UTILITIES COMMISSION	Hibbing	MN	55746	18
400	PUBLIC SERVICE CO OF COLORADO CHEROKEE STATION	Denver	CO	80216	17
401	CITY OF INDEPENDENCE	Independence	MO	64051	17
402	BIRCHWOOD POWER FACILITY	King George	VA	22485	17
403	LAKESHORE PLANT	Cleveland	OH	44103	17
404	MCMEEKIN STATION	Columbia	SC	29212	16
405	POSDEF POWER CO LP	Stockton	CA	95203	16
406	DUKE ENERGY CORP DAN RIVER STEAM STATION	Eden	NC	27288	16
407	CITY OF HAMILTON MUNCIPAL ELECTRIC PLANT	Hamilton	OH	45011	16
408	BERGEN GENERATING STATION	Ridgefield	NJ	07657	16
409	GOLDEN VALLEY ELECTRIC ASSOCIATES INC HEALY POWER PLANT	Healy	AK	99743	16
410	SOUTHAMPTON POWER STATION	Franklin	VA	23851	15
411	KALAELOA COGEN PLANT	Kapolei	HI	96707	14
412	MICHIGAN SOUTH CENTRAL POWER AGENCY	Litchfield	MI	49252	14
413	LAKE ROAD STATION	Saint Joseph	MO	64504	14
414	FLORIDA POWER & LIGHT CO TURKEY POINT POWER PLANT	Homestead	FL	33035	14
415	LINDEN GENERATING STATION	Linden	NJ	07036	13
416	PUBLIC SERVICE CO OF COLORADO CAMEO STATION	Palisade	CO	81526	13
417	HOLLAND BPW JAMES DE YOUNG GENERATION STATION	Holland	MI	49423	13
418	MERCER GENERATING STATION	Hamilton	NJ	08611	13
419	VIRGINIA PUBLIC UTILITIES	Virginia	MN	55792	13
420	GAINESVILLE REGIONAL UTILITIES DEERHAVEN GENERATING STATION	Gainesville	FL	32653	12
421	HAWAIIAN ELECTRIC CO INC WAIAU GENERATING STATION	Pearl City	HI	96782	12
422	O H HUTCHINGS STATION	Miamisburg	OH	45342	11
423	DOVER LIGHT & POWER	Dover	OH	44622	11
424	PSEG NY INC LLC BETHLEHEM ENERGY CENTER	Glenmont	NY	12077	11
425	ALTAVISTA POWER STATION	Altavista	VA	24517	11

Rank	Facility	City	State	Zip	Mercury
426	JEFFERIES GENERATING STATION	Moncks Corner	SC	29461	11
427	GRAINGER GENERATING STATION	Conway	SC	29526	10
428	COLUMBIA MUNICIPAL POWER PLANT	Columbia	MO	65205	10
429	RICHARD M FLYNN POWER PLANT	Holtsville	NY	11742	10
430	DEPARTMENT OF MUNICIPAL SERVICES-POWER PLANT	Wyandotte	MI	48192	10
431	DUBUQUE POWER PLANT	Dubuque	IA	52001	9
432	DOMINION ENERGY SALEM HARBOR STATION	Salem	MA	01970	9
433	NRG ENERGY CENTER-DOVER	Delaware	DE	19904	9
434	ROCHESTER PUBLIC UTILITIES SILVER LAKE PLANT	Rochester	MN	55906	8
435	NIAGARA GENERATION LLC	Niagara Falls	NY	14304	8
436	CHAMOIS POWER PLANT	Chamois	MO	65024	8
437	TAMPA ELECTRIC CO POLK POWER STATION	Mulberry	FL	33860	8
438	PRAIRIE CREEK GENERATING STATION	Cedar Rapids	IA	52404	7
439	VALLEY POWER PLANT	Milwaukee	WI	53233	7
440	PRAIRIE POWER INC PEARL STATION	Pearl	IL	62361	5
441	IRVINGTON GENERATING STATION	Tucson	AZ	85714	4
442	WHITE PINE ELECTRIC POWER LLC	White Pine	MI	49971	4
443	BP PRODUCTS NORTH AMERICA INC TEXAS CITY REFINERY	Texas City	TX	77590	2
444	EDGECOMB GENCO LLC	Battleboro	NC	27809	2
445	MT POSO COGENERATION	Bakersfield	CA	93308	2
446	RRI ENERGY INC SEWARD POWER PLANT	New Florence	PA	15944	1
447	PSEG POWER CONNECTICUT LLC BRIDGEPORT HARBOR STATION	Bridgeport	CT	06604	1
448	RIO BRAVO POSO	Bakersfield	CA	93308	1
449	RIO BRAVO JASMIN	Bakersfield	CA	93308	1
450	PUBLIC SERVICE CO OF NEW HAMPSHIRE NEWINGTON STATION	Newington	NH	03801	1
451	AIR PRODUCTS MANUFACTURING CORP STOCKTON COGEN	Stockton	CA	95206	0

Appendix C: Electric Utilities in Each State Ranked by Pounds of Mercury Emitted in 2009[106]

Rank	Facility	City	State	Zip Code	Total mercury emissions (in lbs.)
1	AURORA ENERGY LLC	Fairbanks	AK	99701	25
2	DOYON UTILITIES FT WAINWRIGHT AK	Fort Wainwright	AK	99703	24
3	GOLDEN VALLEY ELECTRIC ASSOCIATES INC HEALY POWER PLANT	Healy	AK	99743	16
			Total Emissions		65

Rank	Facility	City	State	Zip Code	Hg
1	MILLER STEAM PLANT	Quinton	AL	35130	1,354
2	GORGAS STEAM PLANT	Parrish	AL	35580	707
3	GASTON STEAM PLANT	Wilsonville	AL	35186	657
4	BARRY STEAM PLANT	Bucks	AL	36512	483
5	ALABAMA POWER CO GREENE COUNTY STEAM PLANT	Forkland	AL	36740	462
6	US TVA WIDOWS CREEK FOSSIL PLANT	Stevenson	AL	35772	313
7	US TVA COLBERT FOSSIL PLANT	Tuscumbia	AL	35674	128
8	CHARLES R LOWMAN POWER PLANT	Leroy	AL	36548	115
9	GADSDEN STEAM PLANT	Gadsden	AL	35903	85
10	MOBILE ENERGY SERVICES LLC	Mobile	AL	36610	20
			Total Emissions		4,324

Rank	Facility	City	State	Zip Code	Hg
Rank	Facility	City	State	Zip Code	M
1	INDEPENDENCE STEAM ELECTRIC STATION	Newark	AR	72562	582
2	WHITE BLUFF GENERATING PLANT	Redfield	AR	72132	559
3	AMERICAN ELECTRIC POWER FLINT CREEK PLANT	Gentry	AR	72734	118
			Total Emissions		1,259

Rank	Facility	City	State	Zip Code	Hg
1	SALT RIVER PROJECT NAVAJO GENERATING STATION	Page	AZ	86040	991
2	SPRINGERVILLE GENERATING STATION	Springer-ville	AZ	85938	882
3	CORONADO GENERATING STATION	Saint Johns	AZ	85936	631
4	CHOLLA POWER PLANT	Joseph City	AZ	86032	411
5	ARIZONA ELECTRIC POWER COOPERATIVE INC.	Cochise	AZ	85606	227
6	IRVINGTON GENERATING STATION	Tucson	AZ	85714	4
			Total Emissions		3,146

Rank	Facility	City	State	Zip Code	Hg
1	ACE COGENERATION FACILITY	Trona	CA	93652	31
2	POSDEF POWER CO LP	Stockton	CA	95203	16
3	MT POSO COGENERATION	Bakersfield	CA	93308	2
4	RIO BRAVO POSO	Bakersfield	CA	93308	1
5	RIO BRAVO JASMIN	Bakersfield	CA	93308	1
6	AIR PRODUCTS MANUFACTURING CORP STOCKTON COGEN	Stockton	CA	95206	0
			Total Emissions		50

Rank	Facility	City	State	Zip Code	Hg
1	PUBLIC SERVICE CO OF COLORADO COMANCHE STATION	Pueblo	CO	81006	309
2	PUBLIC SERVICE CO OF COLORADO PAWNEE STATION	Brush	CO	80723	166
3	COLORADO SPRINGS UTILITIES RAY NIXON POWER PLANT	Fountain	CO	80817	155
4	TRI-STATE GENERATION & TRANSMISSION - CRAIG STATION	Craig	CO	81626	150
5	PUBLIC SERVICE CO OF COLORADO HAYDEN STATION	Hayden	CO	81639	113
6	COLORADO SPRINGS UTILITIES MARTIN DRAKE POWER PLANT	Colorado Springs	CO	80903	96
7	RAWHIDE ENERGY STATION	Wellington	CO	80549	84
8	PUBLIC SERVICE CO OF COLORADO ARAPAHOE STATION	Denver	CO	80223	59
9	TRI-STATE GENERATION & TRANSMISSION - NUCLA STATION	Nucla	CO	81424	47
10	PUBLIC SERVICE CO OF COLORADO VALMONT STATION	Boulder	CO	80302	45

11	BLACK HILLS ENERGY - WN CLARK STATION	Canon City	CO	81212	43
12	PUBLIC SERVICE CO OF COLORADO CHEROKEE STATION	Denver	CO	80216	17
13	PUBLIC SERVICE CO OF COLORADO CAMEO STATION	Palisade	CO	81526	13
			Total Emissions		1,297

Rank	Facility	City	State	Zip Code	Hg
1	AES THAMES LLC	Uncasville	CT	06382	172
2	MIDDLETOWN STATION	Middle-town	CT	06457	46
3	PSEG POWER CONNECTICUT LLC BRIDGEPORT HARBOR STATION	Bridgeport	CT	06604	1
			Total Emissions		219

Rank	Facility	City	State	Zip Code	Hg
1	INDIAN RIVER GENERATING STATION	Dagsboro	DE	19939	127
2	EDGE MOOR/HAY ROAD POWER PLANTS	Wilmington	DE	19809	100
3	NRG ENERGY CENTER-DOVER	Delaware	DE	19904	9
			Total Emissions		235

Rank	Facility	City	State	Zip Code	Hg
1	ST JOHNS RIVER POWER PARK/NORTHSIDE GENERATING STATION	Jacksonville	FL	32226	532
2	GULF POWER CO - PLANT CRIST	Pensacola	FL	32514	513
3	SEMINOLE GENERATING STATION	Palatka	FL	32177	499
4	FLORIDA POWER CORP CRYSTAL RIVER ENERGY COMPLEX	Crystal River	FL	34428	488
5	STANTON ENERGY CENTER	Orlando	FL	32831	341
6	GULF POWER CO PLANT LANSING SMITH	Southport	FL	32409	278
7	CEDAR BAY GENERATING CO LP	Jacksonville	FL	32218	183
8	TAMPA ELECTRIC CO BIG BEND POWER STA-TION	Apollo Beach	FL	33572	111
9	FLORIDA CRUSHED STONE CO	Brooksville	FL	34601	101
10	INDIANTOWN COGENERATION LP	Indiantown	FL	34956	82
11	CD MCINTOSH JR POWER PLANT	Lakeland	FL	33805	55
12	MARTIN POWER PLANT	Indiantown	FL	34956	30
13	FPL LAUDERDALE POWER PLANT	Fort Lau-derdale	FL	33314	28
14	FLORIDA POWER & LIGHT CO FPL MANATEE POWER PLANT	Parrish	FL	34219	19

15	FORT MYERS POWER PLANT	Fort Myers	FL	33905	18
16	FLORIDA POWER & LIGHT CO TURKEY POINT POWER PLANT	Homestead	FL	33035	14
17	GAINESVILLE REGIONAL UTILITIES DEERHAVEN GENERATING STATION	Gainesville	FL	32653	12
18	TAMPA ELECTRIC CO POLK POWER STATION	Mulberry	FL	33860	8
			Total Emissions		3,312

Rank	Facility	City	State	Zip Code	Hg
1	SCHERER STEAM ELECTRIC GENERATING PLANT	Juliette	GA	31046	1,649
2	BOWEN STEAM ELECTRIC GENERATING PLANT	Cartersville	GA	30120	584
3	BRANCH STEAM ELECTRIC GENERATING PLANT	Milled-geville	GA	31061	437
4	WANSLEY STEAM ELECTRIC GENERATING PLANT	Carrollton	GA	30116	432
5	YATES STEAM ELECTRIC GENERATING PLANT	Newnan	GA	30263	349
6	HAMMOND STEAM ELECTRIC GENERATING PLANT	Rome	GA	30165	209
7	MCDONOUGH/ATKINSON STEAM ELECTRIC GENERATING PLANT	Smyrna	GA	30080	113
8	KRAFT STEAM ELECTRIC GENERATING PLANT	Port Went-worth	GA	31407	44
			Total Emissions		3,816

Rank	Facility	City	State	Zip Code	Hg
1	AES HAWAII INC	Kapolei	HI	96707	71
2	HAWAIIAN ELECTRIC CO INC KAHE GENERAT-ING STATION	Kapolei	HI	96707	22
3	KALAELOA COGEN PLANT	Kapolei	HI	96707	14
4	HAWAIIAN ELECTRIC CO INC WAIAU GENERAT-ING STATION	Pearl City	HI	96782	12
			Total Emissions		119

Rank	Facility	City	State	Zip Code	Hg
1	MIDAMERICAN ENERGY CO WALTER SCOTT JR ENERGY CENTER	Council Bluffs	IA	51501	709
2	MIDAMERICAN ENERGY CO GEORGE NEAL NORTH	Sergeant Bluff	IA	51054	429
3	MIDAMERICAN ENERGY-LOUISA GENERATING STATION	Muscatine	IA	52761	367

4	OTTUMWA GENERATING STATION	Ottumwa	IA	52501	323
5	MIDAMERICAN ENERGY-GEORGE NEAL SOUTH	Salix	IA	51052	268
6	LANSING POWER STATION	Lansing	IA	52151	169
7	MUSCATINE POWER & WATER GENERATION	Muscatine	IA	52761	137
8	BURLINGTON GENERATING STATION	Burlington	IA	52601	133
9	M L KAPP GENERATING STATION	Clinton	IA	52732	60
10	MIDAMERICAN ENERGY-RIVERSIDE GENERATING STATION	Bettendorf	IA	52722	48
11	CENTRAL IOWA POWER COOPERATIVE (CIPCO) - FAIR STATION	Muscatine	IA	52761	32
12	INTERSTATE POWER & LIGHT CO SUTHERLAND STATION	Marshalltown	IA	50158	25
13	CITY OF AMES. 200 E 5TH ST, AMES, Iowa 50010 (STORY)	Ames	IA	50010	18
14	DUBUQUE POWER PLANT	Dubuque	IA	52001	9
15	PRAIRIE CREEK GENERATING STATION	Cedar Rapids	IA	52404	7
			Total Emissions		2,735

Rank	Facility	City	State	Zip Code	Hg
1	EDISON INTERNATIONAL POWERTON GENERATING STATION	Pekin	IL	61554	635
2	AMEREN ENERGY GENERATING NEWTON POWER STATION	Newton	IL	62448	516
3	DOMINION KINCAID GENERATION LLC	Kincaid	IL	62540	506
4	JOLIET GENERATING STATION (#9 & #29)	Joliet	IL	60436	493
5	DYNEGY MIDWEST GENERATION INC BALDWIN ENERGY COMPLEX	Baldwin	IL	62217	403
6	WILL COUNTY GENERATING STATION	Romeoville	IL	60446	331
7	WAUKEGAN GENERATING STATION	Waukegan	IL	60087	322
8	ELECTRIC ENERGY INC	Joppa	IL	62953	293
9	AMEREN ENERGY RESOURCES GENERATING CO	Bartonville	IL	61607	221
10	AMEREN ENERGY GENERATING COFFEEN POWER STATION	Coffeen	IL	62017	215
11	CRAWFORD GENERATING STATION	Chicago	IL	60623	176
12	DYNEGY WOOD RIVER POWER STATION	Alton	IL	62002	128
13	SOUTHERN ILLINOIS POWER COOPER ATIVE	Marion	IL	62959	125
14	FISK GENERATING STATION	Chicago	IL	60608	113
15	AMEREN ENERGY RESOURCES GENERATING CO	Canton	IL	61520	100
16	HENNEPIN POWER STATION	Hennepin	IL	61327	96
17	HAVANA POWER STATION	Havana	IL	62644	85

18	CITY WATER LIGHT & POWER CITY OF SPRING-FIELD	Springfield	IL	62707	82
19	AMEREN ENERGY GENERATING HUTSONVILLE POWER STATION	Hutsonville	IL	62433	41
20	VERMILION POWER STATION	Oakwood	IL	61858	39
21	TUSCOLA GENERATING FACILITY	Tuscola	IL	61953	24
22	AMEREN ENERGY GENERATING MEREDOSIA POWER STATION	Meredosia	IL	62665	24
23	PRAIRIE POWER INC PEARL STATION	Pearl	IL	62361	5
			Total Emissions		4,973

Rank	Facility	City	State	Zip Code	Hg
1	AMERICAN ELECTIC POWER ROCKPORT PLANT	Rockport	IN	47635	1,226
2	IPL PETERSBURG	Petersburg	IN	47567	751
3	MEROM GENERATING STATION	Sullivan	IN	47882	661
4	NIPSCO RMSCHAHFER GENERATING STATION	Wheatfield	IN	46392	632
5	CLIFTY CREEK STATION	Madison	IN	47250	504
6	DUKE ENERGY CORP GIBSON GENERATING STA-TION	Owensville	IN	47665	499
7	AMERICAN ELECTRIC POWER TANNERS CREEK PLANT	Lawrence-burg	IN	47025	306
8	DUKE ENERGY CORP CAYUGA GENERATING STATION	Cayuga	IN	47928	270
9	SIGECO A B BROWN GENERATING STATION	Mount Vernon	IN	47620	205
10	IPL HARDING STREET STATION	Indianapo-lis	IN	46217	190
11	WABASH RIVER GENERATING STATION	West Terre Haute	IN	47885	161
12	NIPSCO MICHIGAN CITY GENERATING STATION	Michigan City	IN	46360	145
13	SIGECO F B CULLEY GENERATING STATION	Newburgh	IN	47630	124
14	DUKE ENERGY CORP GALLAGHER GENERATING STATION	New Al-bany	IN	47150	106
15	FRANK E RATTS GENERATING STAT ION	Petersburg	IN	47567	71
16	NIPSCO BAILLY GENERATING STATION	Chesterton	IN	46304	67
17	STATE LINE ENERGY LLC	Hammond	IN	46320	64
18	IPL EAGLE VALLEY	Martinsville	IN	46151	40
19	WHITEWATER VALLEY GENERATING STATION	Richmond	IN	47374	24
			Total Emissions		6,048

Rank	Facility	City	State	Zip Code	Hg
1	GREAT PLAINS ENERGYLACYGNE GENERATING STATION	La Cygne	KS	66040	679
2	JEFFREY ENERGY CENTER	Saint Marys	KS	66536	618
3	HOLCOMB UNIT 1	Holcomb	KS	67851	289
4	LAWRENCE ENERGY CENTER	Lawrence	KS	66044	180
5	KANSAS CITY BPU QUINDARO POWER STATION	Kansas City	KS	66104	97
6	NEARMAN CREEK POWER STATION	Kansas City	KS	66104	77
7	TECUMSEH ENERGY CENTER	Tecumseh	KS	66542	70
8	RIVERTON GENERATING STATION	Riverton	KS	66770	37
			Total Emissions		2,046

Rank	Facility	City	State	Zip Code	Hg
1	SPURLOCK POWER STATION	Maysville	KY	41056	921
2	LOUISVILLE GAS & ELECTRIC CO - MILL CREEK STATION	Louisville	KY	40272	787
3	BIG RIVERS ELECTRIC CORP REID/GREEN/ HMP&L STATION II	Robards	KY	42452	691
4	AMERICAN ELECTRIC POWER BIG SANDY PLANT	Louisa	KY	41230	582
5	KENTUCKY UTILITIES CO GHENT STATION	Ghent	KY	41045	516
6	US TVA PARADISE FOSSIL PLANT	Drakesboro	KY	42337	370
7	U.S. TVA SHAWNEE FOSSIL PLANT	West Paducah	KY	42086	332
8	LOUISVILLE GAS & ELECTRIC CO - TRIMBLE COUNTY STATION	Bedford	KY	40006	273
9	BIG RIVERS ELECTRIC CORP WILSON STATION	Centertown	KY	42328	272
10	BIG RIVERS ELECTRIC CORP COLEMAN STATION	Hawesville	KY	42348	253
11	LOUISVILLE GAS & ELECTRIC CO - CANE RUN STATION	Louisville	KY	40216	192
12	KENTUCKY UTILITIES CO - E W BROWN STATION	Harrodsburg	KY	40330	188
13	EAST BEND GENERATING STATION	Rabbit Hash	KY	41091	172
14	COOPER POWER STATION	Burnside	KY	42519	145
15	OWENSBORO MUNICIPAL UTILITIES ELMER SMITH STATION	Owensboro	KY	42303	120
16	DALE POWER STATION	Winchester	KY	40391	72
17	KENTUCKY UTILITIES CO GREEN RIVER STATION	Central City	KY	42330	43
			Total Emissions		5,930

Rank	Facility	City	State	Zip Code	Hg
1	BIG CAJUN 2	New Roads	LA	70760	907
2	DOLET HILLS POWER STATION	Mansfield	LA	71052	383
3	RODEMACHER POWER STATION	Lena	LA	71447	197
4	ENTERGY ROY S NELSON PLANT	Westlake	LA	70669	197
			Total Emissions		1,685

Rank	Facility	City	State	Zip Code	Hg
1	DOMINION ENERGY BRAYTON POINT LLC	Somerset	MA	02726	84
2	MIRANT CANAL LLC	Sandwich	MA	02563	51
3	MOUNT TOM GENERATING CO LLC	Holyoke	MA	01040	26
4	DOMINION ENERGY SALEM HARBOR STATION	Salem	MA	01970	9
			Total Emissions		170

Rank	Facility	City	State	Zip Code	Hg
1	MORGANTOWN GENERATING STATION	Newburg	MD	20664	685
2	AES WARRIOR RUN INC	Cumber-land	MD	21502	504
3	BRANDON SHORES & WAGNER COMPLEX	Baltimore	MD	21226	381
4	CHALK POINT GENERATING STATION	Aquasco	MD	20608	364
5	MIRANT DICKERSON GENERATING STATION	Dickerson	MD	20842	237
6	CP CRANE GENERATING STATION	Baltimore	MD	27559	133
7	ALLEGHENY ENERGY INC R PAUL SMITH POWER STATION	Williams-port	MD	21795	28
			Total Emissions		2,332

Rank	Facility	City	State	Zip Code	Hg
1	DETROIT EDISON MONROE POWER PLANT	Monroe	MI	48161	1,235
2	J H CAMPBELL GENERATING PLANT	West Olive	MI	49460	553
3	DETROIT EDISON BELLE RIVER POWER PLANT (PART)	China Township	MI	48054	412
4	DETROIT EDISON ST CLAIR POWER PLANT	East China Township	MI	48054	395
5	DETROIT EDISON CO TRENTON CHANNEL POWER PLANT	Trenton	MI	48183	277
6	DE KARN JC WEADOCK GENERATING PLANT	Essexville	MI	48732	245
7	DETROIT EDISON -RIVER ROUGE POWER PLANT	River Rouge	MI	48218	215
8	PRESQUE ISLE POWER PLANT	Marquette	MI	49855	146
9	JR WHITING GENERATING PLANT	Erie	MI	48133	126

10	LANSING BOARD OF WATER & LIGHT -ECKERT	Lansing	MI	48901	112
11	BC COBB GENERATING PLANT	Muskegon	MI	49445	85
12	LANSING BOARD OF WATER & LIGHT -ERICK-SON	Lansing	MI	48917	62
13	TES FILER CITY STATION	Filer City	MI	49634	44
14	GRAND HAVEN BOARD OF LIGHT &POWER JB SIMS GENERATING STATION	Grand Haven	MI	49417	39
15	MARQUETTE BOARD OF LIGHT & POWER	Marquette	MI	49855	25
16	MICHIGAN SOUTH CENTRAL POWER AGENCY	Litchfield	MI	49252	14
17	HOLLAND BPW JAMES DE YOUNG GENERATION STATION	Holland	MI	49423	13
18	DEPARTMENT OF MUNICIPAL SERVICES-POWER PLANT	Wyandotte	MI	48192	10
19	WHITE PINE ELECTRIC POWER LLC	White Pine	MI	49971	4
			Total Emissions		4,012

Rank	Facility	City	State	Zip Code	Hg
1	XCEL ENERGY SHERBURNE COUNTY GENERAT-ING PLANT	Becker	MN	55308	867
2	EXCEL ENERGY A. S. KING GENERATING PLANT	Bayport	MN	55003	295
3	BOSWELL ENERGY CENTER	Cohasset	MN	55721	270
4	EXCEL ENERGY BLACK DOG GENERATING PLANT	Burnsville	MN	55337	84
5	TACONITE HARBOR ENERGY CENTER	Schroeder	MN	55613	61
6	OTTER TAIL POWER CO HOOT LAKE PLANT	Fergus Falls	MN	56537	25
7	LASKIN ENERGY CENTER	Hoyt Lakes	MN	55750	25
8	HIBBING PUBLIC UTILITIES COMMISSION	Hibbing	MN	55746	18
9	VIRGINIA PUBLIC UTILITIES	Virginia	MN	55792	13
10	ROCHESTER PUBLIC UTILITIES SILVER LAKE PLANT	Rochester	MN	55906	8
			Total Emissions		1,664

Rank	Facility	City	State	Zip Code	Hg
1	AMERENUE LABADIE POWER PLANT	Labadie	MO	63055	1,297
2	AMERENUE RUSH ISLAND POWER STATION	Festus	MO	63028	553
3	THOMAS HILL ENERGY CENTER - POWER DIV	Clifton Hill	MO	65244	351
4	AMERENUE MERAMEC POWER PLANT	Saint Louis	MO	63129	336
5	AMERENUE SIOUX POWER STATION	West Alton	MO	63386	329
6	IATAN GENERATING STATION	Weston	MO	64098	291
7	MONTROSE GENERATING STATION	Clinton	MO	64735	177

8	ASSOCIATED ELECTRIC COOPERATIVE INC NEW MADRID POWER PLANT	Marston	MO	63866	160
9	SOUTHWEST POWER STATION	Springfield	MO	65807	93
10	HAWTHORN GENERATING FACILITY	Kansas City	MO	64120	82
11	SIKESTON POWER STATION	Sikeston	MO	63801	74
12	JAMES RIVER POWER STATION	Springfield	MO	65804	60
13	KCP&L GREATER MISSOURI OPERATIONS SIBLEY GENERATING STATION	Sibley	MO	64088	54
14	EMPIRE DISTRICT ELECTRIC CO ASBURY GENERATING STATION	Asbury	MO	64832	51
15	CITY OF INDEPENDENCE	Independence	MO	64051	17
16	LAKE ROAD STATION	Saint Joseph	MO	64504	14
17	COLUMBIA MUNICIPAL POWER PLANT	Columbia	MO	65205	10
18	CHAMOIS POWER PLANT	Chamois	MO	65024	8
			Total Emissions		3,957

Rank	Facility	City	State	Zip Code	Hg
1	CHOCTAW GENERATION LP	Ackerman	MS	39735	500
2	R D MORROW SR GENERATING PLANT	Purvis	MS	39475	234
3	MISSISSIPPI POWER CO - PLANT DANIEL	Escatawpa	MS	39552	204
4	MISSISSIPPI POWER CO - PLANT WATSON	Gulfport	MS	39502	153
			Total Emissions		1,091

Rank	Facility	City	State	Zip Code	Hg
1	COLSTRIP STEAM ELECTRIC STATION	Colstrip	MT	59323	1,490
2	JE CORETTE STEAM ELECTRIC ST ATION	Billings	MT	59107	85
3	HARDIN GENERATING STATION	Hardin	MT	59034	70
4	LEWIS & CLARK STATION	Sidney	MT	59270	61
5	COLSTRIP ENERGY LP ROSEBUD POWER PLANT	Colstrip	MT	59323	20
			Total Emissions		1,726

Rank	Facility	City	State	Zip Code	Hg
1	CAROLINA POWER & LIGHT CO - ROXBORO STEAM ELECTRIC PLANT	Semora	NC	27343	1,079
2	CAROLINA POWER & LIGHT CO-ASHEVILLE PLANT	Arden	NC	28704	973
3	MARSHALL STEAM STATION	Terrell	NC	28682	859

4	DUKE ENERGY CORP BELEWS CREEK STEAM STATION	Belews Creek	NC	27009	432
5	CAROLINA POWER & LIGHT CO - MAYO ELECTRIC GENERATING PLANT	Roxboro	NC	27574	310
6	CLIFFSIDE STEAM STATION	Moores-boro	NC	28114	206
7	CAROLINA POWER & LIGHT CO - L V SUTTON ELECTRIC PLANT	Wilmington	NC	28401	201
8	CAROLINA POWER & LIGHT CO - H F LEE STEAM ELECTRIC PLANT	Goldsboro	NC	27530	168
9	CAROLINA POWER & LIGHT CO - CAPE FEAR STEAM ELECTRIC PLANT	Moncure	NC	27559	130
10	DUKE ENERGY CORP PLANT ALLEN	Belmont	NC	28012	114
11	ROANOKE VALLEY ENERGY FACILITY	Weldon	NC	27890	112
12	DUKE ENERGY CORP RIVERBEND STEAM STATION	Mount Holly	NC	28120	41
13	CAROLINA POWER & LIGHT CO - W H WEATHERSPOON PLANT	Lumberton	NC	28358	30
14	DUKE ENERGY CORP BUCK STEAM STATION	Spencer	NC	28159	28
15	DUKE ENERGY CORP DAN RIVER STEAM STATION	Eden	NC	27288	16
16	EDGECOMB GENCO LLC	Battleboro	NC	27809	2
			Total Emissions		4,702

Rank	Facility	City	State	Zip Code	Hg
1	COAL CREEK STATION	Under-wood	ND	48476	897
2	MINNKOTA POWER COOPERATIVE INC MILTON R YOUNG STATION	Center	ND	58530	872
3	BASIN ELECTRIC ANTELOPE VALLEY STATION	Beulah	ND	58523	473
4	OTTER TAIL POWER CO COYOTE STATION	Beulah	ND	58523	345
5	BASIN ELECTRIC LELAND OLDS STATION	Stanton	ND	58571	303
6	GREAT RIVER ENERGY STANTON STATION	Stanton	ND	58571	62
7	RM HESKETT STATION	Mandan	ND	58554	60
			Total Emissions		3,012

Rank	Facility	City	State	Zip Code	Hg
1	OMAHA PUBLIC POWER DISTRICT NEBRASKA CITY STATION	Nebraska City	NE	68410	953
2	GERALD GENTLEMAN STATION	Sutherland	NE	69165	660

3	OMAHA PUBLIC POWER DISTRICT NORTH OMAHA STATION	Omaha	NE	68112	458
4	NEBRASKA PUBLIC POWER DISTRICT SHELDON STATION	Hallam	NE	68368	170
5	WHELAN ENERGY CENTER	Hastings	NE	68901	44
6	PLATTE GENERATING STATION	Grand Island	NE	68801	35
7	CITY OF FREMONT DEPARTMENT OF UTILITIES LON D WRIGHT POWER	Fremont	NE	68025	33
			Total Emissions		2,353

Rank	Facility	City	State	Zip Code	Hg
1	MERRIMACK STATION	New Hampshire	NH	03304	214
2	SCHILLER STATION	Portsmouth	NH	03801	137
3	PUBLIC SERVICE CO OF NEW HAMPSHIRE NEWINGTON STATION	Newington	NH	03801	1
			Total Emissions		352

Rank	Facility	City	State	Zip Code	Hg
1	LOGAN GENERATING CO LP	Swedesboro	NJ	08085	89
2	CHAMBERS COGENERATION LP	Carneys Point	NJ	08069	73
3	BL ENGLAND GENERATING STATION	Beesleys Point	NJ	08223	54
4	PSEG POWER LLC HUDSON GENERATING STATION	Jersey City	NJ	07306	27
5	BERGEN GENERATING STATION	Ridgefield	NJ	07657	16
6	LINDEN GENERATING STATION	Linden	NJ	07036	13
7	MERCER GENERATING STATION	Hamilton	NJ	08611	13
			Total Emissions		284
1	FOUR CORNERS STEAM ELECTRIC STATION	Fruitland	NM	87416	1,481
2	SAN JUAN GENERATING STATION	Waterflow	NM	87421	610
3	TRI-STATE GENERATION & TRANSMISSION - ESCALANTE STATION	Prewitt	NM	87045	82
			Total Emissions		2,173

Rank	Facility	City	State	Zip Code	Hg
1	REID GARDNER GENERATING STATION	Moapa	NV	89025	119
2	NEWMONT NEVADA ENERGY INVESTMENT LLC	Beowawe	NV	89821	104
3	NORTH VALMY STATION	Valmy	NV	89438	75
			Total Emissions		298

Rank	Facility	City	State	Zip Code	Hg
1	DUNKIRK STEAM STATION	Dunkirk	NY	14048	170
2	AES SOMERSET LLC	Barker	NY	14012	143
3	HUNTLEY GENERATING STATION	Tonawanda	NY	14150	103
4	DANSKAMMER GENERATING FACILITY	Newburgh	NY	12550	99
5	AES-CAYUGA LLC	Lansing	NY	14882	88
6	SAMUEL A CARLSON GENERATING STATION	Jamestown	NY	14701	46
7	BROOKLYN NAVY YARD COGENERATION FACILITY	Brooklyn	NY	11205	33
8	SYRACUSE ENERGY CORP	Syracuse	NY	13204	27
9	AES WESTOVER	Johnson City	NY	13790	25
10	AES GREENIDGE LLC	Dresden	NY	14441	24
11	PSEG NY INC LLC BETHLEHEM ENERGY CENTER	Glenmont	NY	12077	11
12	RICHARD M FLYNN POWER PLANT	Holtsville	NY	11742	10
13	NIAGARA GENERATION LLC	Niagara Falls	NY	14304	8
			Total Emissions		786

Rank	Facility	City	State	Zip Code	Hg
1	AMERICAN ELECTRIC POWER GAVIN PLANT	Cheshire	OH	45620	2,099
2	JM STUART STATION	Manchester	OH	45144	1,234
3	AMERICAN ELECTRIC POWER CARDINAL PLANT	Brilliant	OH	43913	894
4	AMERICAN ELECTRIC POWER CONESVILLE PLANT	Conesville	OH	43811	837
5	W H SAMMIS PLANT	Stratton	OH	43961	597
6	CITY OF PAINESVILLE POWER PLANT	Painesville	OH	44077	546
7	AMERICAN ELECTRIC POWER MUSKINGUM RIVER PLANT	Beverly	OH	45715	505
8	RRI ENERGY INC AVON LAKE POWER PLANT	Avon Lake	OH	44012	463
9	KYGER CREEK STATION	Cheshire	OH	45620	452
10	DAYTON POWER & LIGHT CO KILLEN STATION	Manchester	OH	45144	358

11	FIRSTENERGY CORP EASTLAKE PLANT	Eastlake	OH	44095	331
12	DUKE ENERGY BECKJORD GENERATING STATION	New Richmond	OH	45157	317
13	DUKE ENERGY CORP MIAMI FORT GENERATING STATION	North Bend	OH	45052	205
14	DUKE ENERGY CORP ZIMMER GENERATING STATION	Moscow	OH	45153	198
15	AMERICAN MUNICIPAL POWER RICHARD H GORSUCH STATION	Marietta	OH	45750	116
16	BAYSHORE PLANT	Oregon	OH	43616	97
17	CITY OF ORRVILLE DEPT OF PUB LIC UTILITIES ELECTRIC DEPT	Orrville	OH	44667	62
18	R E BURGER PLANT	Shadyside	OH	43947	42
19	ASHTABULA POWER PLANT	Ashtabula	OH	44004	36
20	RRI ENERGY INC NILES POWER PLANT	Niles	OH	44446	33
21	AMERICAN ELECTRIC POWER PICWAY PLANT	Lockbourne	OH	43137	22
22	SHELBY MUNICIPAL LIGHT PLANT	Shelby	OH	44875	21
23	LAKESHORE PLANT	Cleveland	OH	44103	17
24	CITY OF HAMILTON MUNCIPAL ELECTRIC PLANT	Hamilton	OH	45011	16
25	O H HUTCHINGS STATION	Miamisburg	OH	45342	11
26	DOVER LIGHT & POWER	Dover	OH	44622	11
			Total Emissions		9,518

Rank	Facility	City	State	Zip Code	Hg
1	WESTERN FARMERS ELECTRIC COOP	Hugo	OK	73005	476
2	AES SHADY POINT LLC	Panama	OK	74951	420
3	GRAND RIVER DAM AUTHORITY COAL FIRED COMPLEX	Chouteau	OK	74337	364
4	MUSKOGEE GENERATING STATION	Fort Gibson	OK	74434	277
5	AMERICAN ELECTRIC POWER NORTHEASTERN PLANT	Oologah	OK	74053	220
6	OGE ENERGY CORP SOONER GENERATING STATION	Red Rock	OK	74651	194
			Total Emissions		1,951

Rank	Facility	City	State	Zip Code	Hg
1	BOARDMAN PLANT	Boardman	OR	97818	207
			Total Emissions		207

Rank	Facility	City	State	Zip Code	Hg
1	RRI ENERGY INC KEYSTONE POWER PLANT	Shelocta	PA	15774	2,164
2	RRI ENERGY INC CONEMAUGH POWER PLANT	New Florence	PA	15944	2,060
3	CAMBRIA COGEN CO	Ebensburg	PA	15931	1,644
4	RRI ENERGY INC SHAWVILLE STATION	Shawville	PA	16873	1,071
5	BRUCE MANSFIELD POWER PLANT	Shippingport	PA	15077	1,023
6	EBENSBURG POWER CO	Ebensburg	PA	15931	901
7	EME HOMER CITY GENERATION LP	Homer City	PA	15748	738
8	SCRUBGRASS GENERATING PLANT	Kennerdell	PA	16374	714
9	HATFIELD POWER STATION	Masontown	PA	15461	666
10	COLVER POWER PROJECT	Colver	PA	15927	639
11	SAINT NICHOLAS COGENERATION PROJECT	Shenandoah	PA	17976	464
12	PANTHER CREEK PARTNERS	Nesquehoning	PA	18240	460
13	RRI ENERGY INC PORTLAND POWER PLANT	Mount Bethel	PA	18343	369
14	MONTOUR STEAM ELECTRIC STATION	Danville	PA	17821	295
15	BRUNNER ISLAND STEAM ELECTRIC STATION	York Haven	PA	17370	265
16	CHESWICK POWER PLANT	Springdale	PA	15144	232
17	NORTHEASTERN POWER CO	McAdoo	PA	18237	223
18	WHEELABRATOR FRACKVILLE ENERGY CO INC	Frackville	PA	17931	196
19	EDDYSTONE GENERATING STATION	Eddystone	PA	19022	176
20	NEW CASTLE POWER PLANT	West Pittsburg	PA	16160	175
21	ALLEGHENY ENERGY INC ARMSTRONG POWER STATION	Kittanning	PA	16201	165
22	SUNBURY GENERATION LP	Shamokin Dam	PA	17876	145
23	GILBERTON POWER CO	Frackville	PA	17931	144
24	PINEY CREEK LP	Clarion	PA	16214	110
25	AES BEAVER VALLEY LLC	Monaca	PA	15061	101
26	MOUNT CARMEL COGEN FACILITY	Marion Heights	PA	17832	88
27	MITCHELL POWER STATION	Courtney	PA	15067	86
28	UGI DEVELOPMENT CO HUNLOCK POWER STATION	Hunlock Creek	PA	18621	81

29	COGENTRIX ENERGY NORTHAMPTON GENERATING PLANT	Northampton	PA	18067	65
30	RRI ENERGY INC TITUS POWER PLANT	Birdsboro	PA	19508	39
31	EXELON CORP CROMBY GENERATING STATION	Phoenixville	PA	19460	29
32	RRI ENERGY INC ELRAMA POWER PLANT	Elrama	PA	15038	21
33	RRI ENERGY INC SEWARD POWER PLANT	New Florence	PA	15944	1
			Total Emissions		15,550

Rank	Facility	City	State	Zip Code	Hg
1	CROSS GENERATING STATION	Pineville	SC	29468	338
2	GENCO WILLIAMS STATION	Goose Creek	SC	29445	226
3	SOUTH CAROLINA ELECTRIC & GAS CO COPE STATION	Cope	SC	29038	179
4	WINYAH GENERATING STATION	Georgetown	SC	29440	110
5	CAROLINA POWER & LIGHT CO - H B ROBINSON S E P	Hartsville	SC	29550	90
6	. 142 WATEREE STATION RD, EASTOVER, South Carolina 29044 (RICHLAND)	Eastover	SC	29044	81
7	CANADYS STATION	South Carolina	SC	29433	39
8	DUKE ENERGY CORP LEE STEAM STATION	Belton	SC	29627	36
9	SOUTH CAROLINA GAS & ELECTRIC URQUHART GENERATION STATION	Beech Island	SC	29841	26
10	MCMEEKIN STATION	Columbia	SC	29212	16
11	JEFFERIES GENERATING STATION	Moncks Corner	SC	29461	11
12	GRAINGER GENERATING STATION	Conway	SC	29526	10
			Total Emissions		1,162

Rank	Facility	City	State	Zip Code	Hg
1	OTTER TAIL POWER CO BIG STONE PLANT	Big Stone City	SD	57216	310
2	BLACK HILLS CORP - BEN FRENCH POWER PLANT	Rapid City	SD	57702	18
			Total Emissions		328

Rank	Facility	City	State	Zip Code	Hg
1	US TVA CUMBERLAND FOSSIL PLANT	Cumberland City	TN	37050	621
2	US TVA ALLEN FOSSIL PLANT	Memphis	TN	38109	360
3	US TVA GALLATIN FOSSIL PLANT	Gallatin	TN	37066	344
4	US TVA JOHN SEVIER FOSSIL PLANT	Rogersville	TN	37857	291
5	US TVA JOHNSONVILLE FOSSIL PLANT	New Johnsonville	TN	37134	249
6	US TVA BULL RUN FOSSIL PLANT	Clinton	TN	37716	237
7	US TVA KINGSTON FOSSIL PLANT	Harriman	TN	37748	163
			Total Emissions		2,265

Rank	Facility	City	State	Zip Code	Hg
1	MARTIN LAKE STEAM ELECTRIC STATION & LIGNITE MINE	Tatum	TX	75691	2,660
2	MONTICELLO STEAM ELECTRIC STATION & LIGNITE MINE	Mount Pleasant	TX	75455	1,828
3	LIMESTONE ELECTRIC GENERATING STATION	Jewett	TX	75846	1,647
4	SAN MIGUEL ELECTRIC COOPERATIVE INC	Christine	TX	78012	1,560
5	BIG BROWN STEAM ELECTRIC STATION & LIGNITE MINE	Fairfield	TX	75840	1,426
6	WA PARISH ELECTRIC GENERATIN G STATION	Thompsons	TX	77481	1,289
7	SANDOW STEAM ELECTRIC STATION	Rockdale	TX	76567	1,185
8	AMERICAN ELECTRIC POWER HW PIRKEY POWER PLANT	Hallsville	TX	75650	1,154
9	OPTIM ENERGY LP TWIN OAKS	Bremond	TX	76629	686
10	AMERICAN ELECTRIC POWER WELSH PLANT	Pittsburg	TX	54686	465
11	CALAVERAS POWER STATION	San Antonio	TX	78263	440
12	LCRA FAYETTE POWER PROJECT	La Grange	TX	78945	417
13	COLETO CREEK POWER STATION	Fannin	TX	77960	354
14	SOUTHWESTERN PUBLIC SERVICE CO HARRINGTON STATION	Amarillo	TX	79108	294
15	GIBBONS CREEK STEAM STATION	Anderson	TX	77830	260
16	SOUTHWESTERN PUBLIC SERVICE CO TOLK STATION	Earth	TX	79031	248
17	OAK GROVE STEAM ELECTRIC STATION	Franklin	TX	77856	204
18	SANDOW 5 GENERATING PLANT	Rockdale	TX	76567	120
19	AMERICAN ELECTRIC POWER OKLAUNION PLANT	Vernon	TX	76384	114

20	BP PRODUCTS NORTH AMERICA INC TEXAS CITY REFINERY	Texas City	TX	77590	2
				Total Emissions	16,350

Rank	Facility	City	State	Zip Code	Hg
1	INTERMOUNTAIN POWER GENERATING STATION	Delta	UT	84624	809
2	PACIFICORP HUNTER PLANT	Castle Dale	UT	84513	555
3	PACIFICORP ENERGY HUNTINGTON PLANT	Huntington	UT	84528	205
4	BONANZA POWER PLANT	Vernal	UT	84078	150
5	SUNNYSIDE COGENERATION ASSOCIATES	Sunnyside	UT	84539	85
6	PACIFICORP CARBON PLANT	Helper	UT	84526	31
				Total Emissions	1,834

Rank	Facility	City	State	Zip Code	Hg
1	CHESTERFIELD POWER STATION	Chester	VA	23836	660
2	DOMINION CLOVER POWER STATION	Clover	VA	24534	427
3	CHESAPEAKE ENERGY CENTER	Chesapeake	VA	23323	162
4	MIRANT POTOMAC RIVER GENERATING STATION	Alexandria	VA	22314	145
5	SPRUANCE GENCO LLC	Richmond	VA	23234	119
6	DOMINION RESOURCES INC BREMO POWER STATION	Bremo Bluff	VA	23022	111
7	AMERICAN ELECTRIC POWER CLINCH RIVER PLANT	Cleveland	VA	24225	111
8	DOMINION RESOURCES INC YORKTOWN POWER STATION	Yorktown	VA	23692	90
9	JAMES RIVER COGENERATION CO INC.	Hopewell	VA	23860	57
10	DEGS OF NARROWS LLC	Narrows	VA	24124	44
11	MECKLENBURG POWER STATION	Clarksville	VA	23927	42
12	COGENTRIX VIRGINIA LEASING CORP	Portsmouth	VA	23703	32
13	AMERICAN ELECTRIC POWER GLEN LYN PLANT	Glen Lyn	VA	24093	19
14	BIRCHWOOD POWER FACILITY	King George	VA	22485	17
15	SOUTHAMPTON POWER STATION	Franklin	VA	23851	15
16	ALTAVISTA POWER STATION	Altavista	VA	24517	11
				Total Emissions	2,062

Rank	Facility	City	State	Zip Code	Hg
1	TRANSALTA CENTRALIA GENERATION / MINING	Centralia	WA	98531	361
			Total Emissions		361

Rank	Facility	City	State	Zip Code	Hg
1	COLUMBIA ENERGY CENTER	Pardeeville	WI	53954	627
2	PLEASANT PRAIRIE POWER PLANT	Pleasant Prairie	WI	53158	571
3	WESTON POWER PLANT	Rothschild	WI	54474	378
4	EDGEWATER GENERATING STATION	Sheboygan	WI	53081	375
5	OAK CREEK POWER PLANT	Oak Creek	WI	53154	227
6	DAIRYLAND POWER COOPERATIVE-ALMA SITE	Alma	WI	54610	189
7	PULLIAM POWER PLANT	Green Bay	WI	54303	103
8	MANITOWOC PUBLIC UTILITIES	Manitowoc	WI	54220	94
9	DAIRYLAND POWER COOPERATIVE - GENOA SITE	Genoa	WI	54632	71
10	NELSON DEWEY GENERATING STATION	Cassville	WI	53806	46
11	XCEL ENERGY BAY FRONT PLANT	Ashland	WI	54806	32
12	VALLEY POWER PLANT	Milwaukee	WI	53233	7
			Total Emissions		2,720

Rank	Facility	City	State	Zip Code	Hg
1	DOMINION MOUNT STORM POWER STATION	Mount Storm	WV	26739	1,571
2	AMERICAN ELECTRIC POWER AMOS PLANT	Winfield	WV	25213	1,110
3	HARRISON POWER STATION	Haywood	WV	26366	934
4	AMERICAN ELECTRIC POWER KAMMER / MITCHELL PLANTS	Mounds-ville	WV	26041	899
5	AMERICAN ELECTRIC POWER MOUNTAINEER PLANT	New Haven	WV	25265	811
6	FORT MARTIN POWER STATION	Maidsville	WV	26541	352
7	MORGANTOWN ENERGY ASSOCIATES	Morgan-town	WV	26505	265
8	AMERICAN ELECTRIC POWER PHILIP SPORN PLANT	New Haven	WV	25265	229
9	PLEASANTS WILLOW ISLAND POWER STATIONS	Willow Island	WV	26134	224
10	AMERICAN ELECTRIC POWER KANAWHA RIVER PLANT	Glasgow	WV	25086	140

11	ALLEGHENY ENERGY INC ALBRIGHT POWER STATION	Albright	WV	26519	107
12	AMERICAN BITUMINOUS POWER PARTNERS LP	Grant Town	WV	26574	101
13	DOMINION NORTH BRANCH POWER STATION	Gormania	WV	26720	53
			Total Emissions		6,795

Rank	Facility	City	State	Zip Code	Hg
1	BLACK HILLS CORP - NEIL SIMPSON COMPLEX	Gillette	WY	82718	787
2	BASIN ELECTRIC LARAMIE RIVER STATION	Wheatland	WY	82201	660
3	PACIFICORP WYODAK PLANT	Gillette	WY	82718	570
4	PACIFICORP JIM BRIDGER PLANT & BRIDGER COAL CO	Point of Rocks	WY	82942	544
5	PACIFICORP DAVE JOHNSTON PLANT	Glenrock	WY	82637	385
6	PACIFICORP NAUGHTON PLANT	Kemmerer	WY	83101	110
7	BLACK HILLS CORP - OSAG E POWER PLANT	Osage	WY	82723	27
			Total Emissions		3,082

Appendix D: Mercury Emissions by State from Top 25 Worst Power Plants[107]

State	Mercury emissions from top 25 plants
Texas	12,748
Pennsylvania	7,962
Ohio	3,334
West Virginia	2,681
Georgia	1,649
Montana	1,490
New Mexico	1,481
Alabama	1,354
Missouri	1,297
Michigan	1,235
Indiana	1,226
North Carolina	1,079

Appendix E: Top 25 Worst Power Plants for Mercury Pollution, with Owner[108],[109]

Rank	Facility	State	Total mercury emissions (in lbs.)	Owner
1	MARTIN LAKE STEAM ELECTRIC STATION & LIGNITE MINE	TX	2,660	Luminant
2	RRI ENERGY INC KEYSTONE POWER PLANT	PA	2,164	RRI Energy Inc.
3	AMERICAN ELECTRIC POWER GAVIN PLANT	OH	2,099	American Electric Power
4	RRI ENERGY INC CONEMAUGH POWER PLANT	PA	2,060	RRI Energy Inc.
5	MONTICELLO STEAM ELECTRIC STATION & LIGNITE MINE	TX	1,828	Luminant
6	SCHERER STEAM ELECTRIC GENERATING PLANT	GA	1,649	Georgia Power
7	LIMESTONE ELECTRIC GENERATING STATION	TX	1,647	NRG Energy
8	CAMBRIA COGEN CO	PA	1,644	Northern Star Generation
9	DOMINION MOUNT STORM POWER STATION	WV	1,571	Dominion
10	SAN MIGUEL ELECTRIC COOPERATIVE INC	TX	1,560	San Miguel Electric Cooperative Inc.
11	COLSTRIP STEAM ELECTRIC STATION	MT	1,490	Puget Sound Energy
12	FOUR CORNERS STEAM ELECTRIC STATION	NM	1,481	APS Inc.
13	BIG BROWN STEAM ELECTRIC STATION & LIGNITE MINE	TX	1,426	Luminant
14	MILLER STEAM PLANT	AL	1,354	Southern Company
15	AMERENUE LABADIE POWER PLANT	MO	1,297	Ameren UE
16	WA PARISH ELECTRIC GENERATIN G STATION	TX	1,289	NRG Energy
17	DETROIT EDISON MONROE POWER PLANT	MI	1,235	Detroit Edison
18	JM STUART STATION	OH	1,234	DPL Energy
19	AMERICAN ELECTRIC POWER ROCKPORT PLANT	IN	1,226	American Electric Power
20	SANDOW STEAM ELECTRIC STATION	TX	1,185	Luminant
21	AMERICAN ELECTRIC POWER HW PIRKEY POWER PLANT	TX	1,154	American Electric Power
22	AMERICAN ELECTRIC POWER AMOS PLANT	WV	1,110	American Electric Power
23	CAROLINA POWER & LIGHT CO - ROXBORO STEAM ELECTRIC PLANT	NC	1,079	Progress Energy
24	RRI ENERGY INC SHAWVILLE STATION	PA	1,071	RRI Energy Inc.
25	BRUCE MANSFIELD POWER PLANT	PA	1,023	FirstEnergy

Appendix F: Total Mercury Emissions from Power Plants in 2009, Broken Down by State[110]

Rank	State	Emissions (in lbs.)
1	Texas	16,350
2	Pennsylvania	15,550
3	Ohio	9,518
4	West Virginia	6,795
5	Indiana	6,046
6	Kentucky	5,930
7	Illinois	4,973
8	North Carolina	4,702
9	Alabama	4,324
10	Michigan	4,012
11	Missouri	3,957
12	Georgia	3,817
13	Florida	3,312
14	Arizona	3,146
15	Wyoming	3,082
16	North Dakota	3,012
17	Iowa	2,735
18	Wisconsin	2,720
19	Nebraska	2,353
20	Maryland	2,332
21	Tennessee	2,265
22	New Mexico	2,173
23	Virginia	2,062
24	Kansas	2,046
25	Oklahoma	1,951
26	Utah	1,834
27	Montana	1,726
28	Louisiana	1,685
29	Minnesota	1,664
30	Colorado	1,297
31	Arkansas	1,259
32	South Carolina	1,162
33	Mississippi	1,091
34	New York	786
35	Washington	361
36	New Hampshire	352
37	South Dakota	328
38	Nevada	298
39	New Jersey	284
40	Delaware	236
41	Connecticut	219
42	Oregon	207
43	Massachusetts	170
44	Hawaii	119
45	Alaska	65
46	California	51
47	Idaho	0
48	Maine	0
49	Rhode Island	0
50	Vermont	0

Appendix G: Total Statewide Plans for Reducing Mercury Emissions from Power Plants

Alabama	Alabama is awaiting a federal air toxics rule.
Alaska	Alaska is awaiting a federal air toxics rule.
Arizona	Arizona is awaiting a federal air toxics rule.
Arkansas	Arkansas is awaiting a federal air toxics rule.
California	California is awaiting a federal air toxics rule.
Colorado	Colorado set mercury standards for existing, new, modified and reconstructed coal-fired power plants, exempting low emitters and new units with existing permits in place. For new or reconstructed units, Colorado implements the Best Available Mercury Control Technology Standard, with a 95% mercury capture goal, and 90% capture minimum.
Connecticut	Connecticut requires that coal-fired power plants reduce mercury emissions by 90%.
Delaware	Delaware began regulating mercury pollution from coal-fired power plants in 2006, with phase 1 becoming applicable on January 1, 2009 and phase 2 effective January 1, 2013. Phase 1 set a standard of 80% reduction in mercury, and Phase 2 set a standard of 90% reduction.
Florida	Florida awaiting a federal air toxics rule.
Georgia	Although Georgia is awaiting a federal air toxics rule, it anticipates mercury reductions from the EPA's Clean Air Mercury Rule. The EPA intends to finalize the rule, which sets air toxics standards for coal- and oil-fire power plants, by November 16, 2011. George has also implemented a state rule – "Multi-pollutant Control for Electric Utility Steam Generating Units" that gives co-benefit to mercury reduction and requires the implementation of mercury control on four specific power plants. Finally, Georgia's state rule – "Mercury Emissions from new Electric Generating Units" – requires the use of best available control technology to control mercury emissions from new power plants.
Hawaii	Hawaii is awaiting a federal air toxics rule.
Idaho	Idaho has no applicable power plants to regulate for mercury pollution.
Illinois	Illinois adopted a rule which began in July of 2009 that limits mercury pollution from coal-fired power plants. Phase 1, which goes through December 2012, requires that plants reduce mercury by 90%. The standard at 90% will continue through Phase 2 of the rule, beginning January 1, 2013.
Indiana	On October 3, 2010, the Indiana Air Pollution Control Board voted to adopt the lowest standard for mercury emissions. The Board set a standard of a 66-percent reduction by at least 2025.
Iowa	Iowa is awaiting a federal air toxics rule.
Kansas	Kansas is awaiting a federal air toxics rule.

Kentucky	Kentucky is awaiting a federal air toxics rule.
Louisiana	Louisiana is awaiting a federal air toxics rule.
Maine	Maine is awaiting a federal air toxics rule.
Maryland	Under Maryland's Healthy Air Act, signed into law on April 6, 2006, coal-fired power plants must meet mercury emission limitations. Beginning January 1, 2010, the Act set a standard of 80% reduction in mercury, and beginning January 1, 2013, the standard moves to a 90% reduction. Both standards can be met on a 12-month rolling basis.
Massachusetts	Massachusetts required continuous mercury monitoring from power plants by 2008. The state set a standard of 85% mercury capture from power plants by 2008, and 95% mercury capture by 2012.
Michigan	Michigan set a standard that requires mercury reductions from coal-fired power plants starting January 1, 2015. The plants must meet a minimum of a 90% reduction in mercury, or use the multi-pollutant compliance standard, which requires plants to achieve a 75% reduction in mercury, along with significant reductions in nitrogen oxides and sulfur dioxide.
Minnesota	In 2006, Minnesota set a standard that requires the state's three largest electric power plants to reduce mercury emissions 90% by 2015. Remaining facilities emitting greater than 5 pounds of mercury per year will reduce emissions by 70-90% by 2025.
Mississippi	Mississippi is awaiting a federal air toxics rule.
Missouri	Missouri is awaiting a federal air toxics rule.
Montana	Montana finalized a state rule for mercury control from power plants in October of 2006. Starting January 1, 2010, power plants must meet a 0.9 pound/TBtu mercury limit, or apply for an approval by Montana for an individual control strategy. By July 1, 2011, power plants may apply for an alternative emission limit if they are unable to meet the original emission limit.
Nebraska	Nebraska is awating a federal air toxics rule.
Nevada	Nevada is awaiting a federal air toxics rule.
New Hampshire	On November 6, 2001, New Hampshire set emission reduction targets for sulfur dioxide, nitrogen oxides, carbon dioxide, and mercury for power plants through a cap-and-trade system called the New Hampshire Clean Power Act. A subsequent agreement in 2006 clearly defined that there must be a 75% reduction in annual mercury emission from coal-fired power plants compared 1996/1997 emissions.
New Jersey	New Jersey set a standard of 90% for mercury pollution reduction by December 15, 2007, for coal-fired power plants of any size. A multi-pollutant approach can reduce the initial mercury reduction required, and extend compliance to December 15, 2012.
New Mexico	New Mexico is awaiting the federal air toxics rule.

New York	On January 27, 2007, New York set a standard for the control of mercury emissions from coal-fired power plants. Phase 1 of the state proposal imposes annual facility-wide mercury emission limitations from 2010 to 2014, based upon the EPA's proposed Clean Air Mercury Rule. The EPA intends to finalize the rule, which sets air toxics standards for coal- and oil-fire power plants, by November 16, 2011. Starting in 2015, Phase 2, in conjunction with other EPA rules, will set a facility-wide emission standard of a 90% reduction in mercury.
North Carolina	North Carolina is currently realizing major reductions in mercury emissions from coal-fired boilers as a direct cobenefit of the North Carolina Clean Smokestacks Act in 2002. Additionally, the state mercury rule for coal-fired power plants requires a mercury emission control plan from each power plant on January 1, 2013 that identifies the technology proposed for use at each unit; the schedule for installation and operation of mercury controls at each unit; and shall identify any units that will be shut down. Any unit that has not installed controls as specified in an approved mercury control plan by December 31, 2017 shall be shut down.
North Dakota	North Dakota is awaiting a federal air toxics rule.
Ohio	Ohio is awaiting a federal air toxics rule.
Oklahoma	Oklahoma is awaiting a federal air toxics rule.
Oregon	Oregon's Utility Mercury Rule caps mercury emissions from new plants, and mandates the installation of mercury controls on Oregon's one existing coal-fired power plant. The plant is expected to reduce mercury emissions by 90 percent by July 1, 2012.
Pennsylvania	The Pennsylvania Supreme Court's decision that took place on December 23, 2009 puts an end to state efforts to specially regulate mercury emissions from power plants in Pennsylvania – through the Pennsylvania Mercury Rule – at least until the EPA sets new federal mercury regulations, or until legislation is passed in Pennsylvania authorizing the adoption of mercury regulations.
Rhode Island	Rhode Island has no applicable power plants to regulate for mercury pollution.
South Carolina	South Carolina proposed a Memorandum of Agreement with it power plants to either install mercury monitors, or test coal-fired power plants by July 2009 to provide source-specific mercury emission data. The first data from this effort are currently being submitted.
South Dakota	South Dakota is awaiting a federal air toxics rule.
Tennessee	Tennessee is awaiting a federal air toxics rule.
Texas	Texas is awaiting a federal air toxics rule.
Utah	Utah awaiting a federal air toxics rule.
Vermont	Vermont has no applicable power plants to regulate for mercury pollution.
Virginia	Virginia is awaiting a federal air toxics rule

Washington	Washington is awaiting a federal air toxics rule.
West Virginia	West Virginia is awaiting a federal air toxics rule.
Wisconsin	Wisconsin's revised mercury rule became effective December 1, 2008. Large coal-fired power plants – with capacities of 150 megawatts or greater - must achieve a 90% mercury emission reduction through one of two ways. Either plants can reduce mercury emissions alone by 90% by January 1, 2015, or they can opt for the multi-pollutant option, whereby plants will reduce mercury emissions by 90% by January 1, 2021, as well as reduce nitrogen oxides and sulfur dioxide emissions by January 1, 2015.
Wyoming	Wyoming is awaiting a federal air toxics rule.

Endnotes

[1] Union of Concerned Scientists, "Coal vs. Wind," 2009. http://www.ucsusa.org/clean_energy/coalvswind/c01.html

[2] Barbara Gottlieb, Alan Lockwood, Molly Rauch, and Kristen Welker-Hood, Physicians for Social Responsibility, *Coal's Assault on Human Health,* November 2009.: http://www.psr.org/assets/pdfs/psr-coal-fullreport.pdf

[3] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, & Environmental Results*, 28 December 2010. http://iaspub.epa.gov/waters10/attains_nation_cy.control?p_report_type=T#tmdl_by_pollutant

[4] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, & Environmental Results: National Summary of State Information,* 3 January 2010. http://iaspub.epa.gov/tmdl_waters10/attains_nation_cy.control#prob_source

[5] St. Louis, Vincent, *Metaalicus: Mercury Experiment to Assess Atmospheric Loading in Canada and the United States,* 2 February 2000. http://www.biology.ualberta.ca/old_site/metaalicus/metaalicus.htm

[6] U.S. Environmental Protection Agency, *Fish Advisories: Advisories Where You Live,* 30 November 2010. http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/states.cfm

[7] 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

[8] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, and Environmental Results: Assessed Waters of United States,* 4 January 2011. http://iaspub.epa.gov/tmdl_waters10/attains_nation_cy.control#prob_source

[9] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[10] Philippe Grandjean, Department of Environmental Health, Harvard School of Public Health, testimony at the Mercury MACT Rule Hearing, sponsored by Congressman Tom Allen, Maine State House, Augusta, Maine, 1 March 2004.

[11] Kathryn Mahaffey, Robert P. Cliffner, and Catherine Bodurow, "Blood Organic Mercury and Dietary Mercury Intake: National Health and Nutrition Examination Survey, 1999 and 2000," *Environmental Health Perspectives*, 112(5): 562-570, april 2004; Kathryn R. Mahaffey, U.S. EPA, "Methylmercury Epidemiology Update," Slide #9 of presentation given at the National Forum on Contaminants in Fish, San Diego, January 2004.

[12] National Center for Health Statistics. National Vital Statistics Reports, Vol. 58, No. 25. "Births, Marriages, Divorces, and Deaths: Provisional Data for 2009." Aug. 27, 2010, pg. 1.

[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* (hereinafter *Mercury Emissions from Coal-fired Power Plants*). Northeast States for Coordinated Air Use Management, 2003.

[15] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[16] U.S. Environmental Protection Agency, *Mercury: Environmental Effects*, 1 October 2010. http://www.epa.gov/mercury/eco.htm

[17] 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

[18] Axelrad, Donald, "Chapter 3B: Mercury and Sulfur Monitoring, Research and Environmental Assessment in South Florida," *South Florida Environmental Report,* 2008. https://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_sfer/tab2236041/volume1/chapters/v1_ch_3b.pdf

[19] O.P. Lane and D.C. Evers, "Methylmercury availability in New England estuaries as indicated by Saltmarsh Sharp-tailed Sparrow, 2004-2005," Report BRI 2006-01, *BioDiversity Research Institute,* Gorham, Maine, 2006. http://www.briloon.org/pub/doc/BRI%20SSTS-Report-05.pdf

[20] The Florida Panther Society, Inc., *Mercury Contamination in Florida Panthers* http://www.panthersociety.org/mercury.html

[21] J.G. Weiner et al, "Partitioning and Bioavailability of Mercury in an Experimentally Acidified Wisconsin Lake," *Environmental Toxicology and Chemistry*, 1990,

[22] Amar, Praveen, *Mercury Emissions from Coal-fired Power Plants: The Case for Regulatory Action* (hereinafter *Mercury Emissions from Coal-fired Power Plants*). Northeast States for Coordinated Air Use Management, 2003.

[23] U.S. Environmental Protection Agency, *TRI Explorer*: *Releases: Trends Reports,* 28 October 2010. http://www.epa.gov/cgi-bin/broker?view=USYR&trilib=TRIQ0&sort=_VIEW_&sort_fmt=1&state=All+states&county=All+counties&chemical=N458&industry=2211&year=All+years&core_year=&tab_rpt=1&_service=oiaa&_program=xp_tri.sasmacr.tristart.macro. (hereinafter *TRI Explorer: Releases: Trends Reports*).

[24] *TRI Explorer: Releases: Trends Reports*

[25] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[26] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[27]New Jersey Mercury Task Force Final Report, November 2001, pg. 15.

[28] United States Geological Survey. "Mercury in the Environment," October 2001.. http://www.usgs.gov/themes/factsheet/146-00/, accessed 6 January 2011.

[29] Kathryn Mahaffey, Robert P. Cliffner, and Catherine Bodurow, "Blood Organic Mercury and Dietary Mercury Intake: National Health and Nutrition Examination Survey, 1999 and 2000," *Environmental Health Perspectives*, 112(5): 562-570, april 2004; Kathryn R. Mahaffey, U.S. EPA, "Methylmercury Epidemiology Update," Slide #9 of presentation given at the National Forum on Contaminants in Fish, San Diego, January 2004.

[30] National Center for Health Statistics. National Vital Statistics Reports, Vol. 58, No. 25. "Births, Marriages, Divorces, and Deaths: Provisional Data for 2009." Aug. 27, 2010, pg. 1.

[31] U.S. Environmental Protection Agency, "What You Need to Know About Mercury in Fish and Shellfish." http://water.epa.gov/scitech/swguidance/fishshellfish/outreach/advice_index.cfm, accessed 6 January 2011.

[32] U.S. Environmental Protection Agency, "What You Need to Know About Mercury in Fish and Shellfish." http://water.epa.gov/scitech/swguidance/fishshellfish/outreach/advice_index.cfm, accessed 6 January 2011.

[33] Utah Department of Environmental Quality. "Persistent Bioaccumulative Toxins," http://www.deq.utah.gov/Issues/Mercury/PBTs.htm, accessed 6 January 2011.

[34] California Office of Health Hazard Assessment, *Methylmercury in Sport Fish: Information for Consumers*, http://oehha.ca.gov/fish/hg/index.html.

[35] John Burke Sullivan and Gary R. Krieger, *Clinical Environmental Health and Toxic Exposures*. 2nd edition, Lippincott Williams & Wilkins, 2001, pg. 856.

[36] California Office of Health Hazard Assessment, *Methylmercury in Sport Fish: Information for Consumers*, http://oehha.ca.gov/fish/hg/index.html.

[37] Farhana Zahir, et al. "Low dose mercury toxicity and human health," *Environmental Toxicology and Pharmacology*, 2005, pg. 4.

[38]Environmental Protection Agency. "Human Exposure to Mercury," http://www.epa.gov/hg/exposure.htm, accessed 6 January 2011.

[39] M.L. Lynch, et al. "Varying coefficient function models to explore interactions between maternal nutritional status and prenatal methylmercury toxicity in the Seychelles Child Development Nutrition Study," *Environmental Research*, December 2010.

[40] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[41] Philippe Grandjean, Department of Environmental Health, Harvard School of Public Health, testimony at the Mercury MACT Rule Hearing, sponsored by Congressman Tom Allen, Maine State House, Augusta, Maine, 1 March 2004.

[42] Dan R. Laks. "Assessment of chronic mercury exposure within the U.S. population, National Health and Nutrition Examination Survey, 1999–2006,"

[43] *Mercury Study Report to Congress*.

[44] Raymond F. Palmer, Steven Blanchard, Zachary Stein, David Mandell, and Claudia Miller, *Environmental mercury release, special education rates, autism disorder: an ecological study of Texas,* 1 November 2004, downloaded from http://www.seedcoalition.org/downloads/autism_study_UTHSCSA.pdf.

[45] Edna M. Yokoo et al., "low Level Methylmercury Exposure Affects Neuropsychological Function in Adults," *Environmental Health*, 2(8), June 2003.

[46] *Mercury Emissions from Coal-fired Power Plants*.

[47] 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.

[48] U.S. Environmental Protection Agency, *Fish Advisories: Advisories Where You Live,* 30 November 2010. http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/states.cfm

[49] U.S. Environmental Protection Agency, "Mercury Update: Impact on Fish Advisories," June 2001. http://www.epa.gov/waterscience/fish/advice/mercupd.pdf

[50] St. Louis, Vincent, *Metaalicus: Mercury Experiment to Assess Atmospheric Loading in Canada and the United States,* 2 February 2000. http://www.biology.ualberta.ca/old_site/metaalicus/metaalicus.htm

[51] U.S. Environmental Protection Agency, *Mercury: Environmental Effects*, 1 October 2010. http://www.epa.gov/mercury/eco.htm

[52] 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

[53] Milton, Joseph, "Mercury Causes Homosexuality in Male Ibises," *Science,* 1 December 2010, DOI: 10.1038/news.2010.641. http://www.nature.com/news/2010/101201/full/news.2010.641.html

[54] J.G. Weiner et al, "Partitioning and Bioavailability of Mercury in an Experimentally Acidified Wisconsin Lake," *Environmental Toxicology and Chemistry*, 1990,

[55] 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

[56] U.S. Environmental Protection Agency, *TRI Explorer*: *Releases: Trends Reports,* 28 October 2010. http://www.epa.gov/cgi-bin/broker?view=USYR&trilib=TRIQ0&sort=_VIEW_&sort_fmt=1&state=All+states&county=All+counties&chemical=N458&industry=2211&year=All+years&core_year=&tab_rpt=1&_service=oiaa&_program=xp_tri.sasmacr.tristart.macro

[57] John Hayes, Pittsburgh Post-Gazette, "New advisories on eating fish caught in local waters," 26 December 2010.

[58] *TRI Explorer: Releases: Trends Reports*.

[59] U.S. Environmental Protection Agency, *Mercury: Environmental Effects*, 1 October 2010. http://www.epa.gov/mercury/eco.htm

[60] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, & Environmental Results*, 28 December 2010. http://iaspub.epa.gov/waters10/attains_nation_cy.control?p_report_type=T#tmdl_by_pollutant

[61] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, & Environmental Results*, 28 December 2010. http://iaspub.epa.gov/waters10/attains_nation_cy.control?p_report_type=T#tmdl_by_pollutant

[62] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, & Environmental Results: National Summary of State Information,* 3 January 2010. http://iaspub.epa.gov/tmdl_waters10/attains_nation_cy.control#prob_source

[63] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, and Environmental Results: Assessed Waters of United States,* 4 January 2011. http://iaspub.epa.gov/tmdl_waters10/attains_nation_cy.control#prob_source

[64] The Florida Panther Society, Inc., *Mercury Contamination in Florida Panthers* http://www.panthersociety.org/mercury.html

[65] Axelrad, Donald, "Chapter 3B: Mercury and Sulfur Monitoring, Research and Environmental Assessment in South Florida," *South Florida Environmental Report,* 2008. https://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_sfer/tab2236041/volume1/chapters/v1_ch_3b.pdf

[66] O.P. Lane and D.C. Evers, "Methylmercury availability in New England estuaries as indicated by Saltmarsh Sharp-tailed Sparrow, 2004-2005," Report BRI 2006-01, *BioDiversity Research Institute,* Gorham, Maine, 2006. http://www.briloon.org/pub/doc/BRI%20SSTS-Report-05.pdf

[67] The University of Maine, PEARL, "Loons." http://www.pearl.maine.edu/windows/community/Plants_Animals/plants_loons.htm

[68] Casco Bay Estuary Partnership, "What are the Impacts of Mercury on Wildlife?" http://www.cascobay.usm.maine.edu/pdfs/Toxics%20Chapter%206.pdf

[69] Vieira, Nicole, Colorado Division of Wildlife, "Mercury in CO Fisheries: fish consumption advisories and research to mitigate Hg contamination in walleye fisheries," 2009. http://www.cdphe.state.co.us/ap/toxics/Mercuryfish.pdf

[70] U.S. Environmental Protection Agency, "Mercury Study Report to Congress, Volume VI: An Ecological Assessment for Anthropogenic Mercury Emissions in the United States," December 1997. http://www.epa.gov/ttn/oarpg/t3/reports/volume6.pdf

[71] National Wildlife Federation, "Poisoning Wildlife: The Reality of Mercury Pollution," September 2006.

[72] Evers, D.C. and Duron, M., "Developing an exposure profile for mercury in breeding birds of New York and Pennsylvania," 2005.

[73] 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

[74] Upstate Freshwater Institute, "Onondaga Lake," 22 October 2010. http://www.upstatefreshwater.org/html/onondaga_lake.html

[75] Pennsylvania Fish and Boat Association, "Lake Erie," 2011. http://www.fish.state.pa.us/water/lakes/erie/00erie.htm

[76] DeFranza, David, Travel & Nature, "Mercury Levels on the Rise in Lake Erie After Decades of Decline," 15 July 2010.

[77] Amar, Praveen, *Mercury Emissions from Coal-fired Power Plants: The Case for Regulatory Action* (hereinafter *Mercury Emissions from Coal-fired Power Plants*). Northeast States for Coordinated Air Use Management, 2003.

[78] U.S. Environmental Protection Agency, *TRI Explorer*: *Releases: Trends Reports,* 28 October 2010. http://www.epa.gov/cgi-bin/broker?view=USYR&trilib=TRIQ0&sort=_VIEW_&sort_fmt=1&state=All+states&county=All+counties&chemical=N458&industry=2211&year=All+years&core_year=&tab_rpt=1&_service=oiaa&_program=xp_tri.sasmacr.tristart.macro. (hereinafter *TRI Explorer: Releases: Trends Reports*).

[79] Ibid.

[80]University of Wisconsin Solid and Hazardous Waste Education Center. http://www.mercuryinschools.uwex.edu/curriculum/hg_in_env.htm, accessed 6 January 2011.

[81]Douglas Steding and Russell Flegal. "Mercury concentrations in coastal California precipitation: Evidence of local and trans-Pacific fluxes of mercury to North America," *Journal of Geophysical Research*, December 2002, vol. 107 (4764), pg. 7.

[82] *Mercury Emissions from Coal-fired Power Plants*.

[83] U.S. Environmental Protection Agency, *Mercury Study Report to Congress*, December 1997.

[84] David Evers, et al. "Biological Mercury Hotspots in the Northeastern United States and Southeastern Canada," *Bioscience*, January 2007, vol. 57 (1), pg. 29.

[85] *TRI Explorer: Releases: Trends Reports*

[86] *TRI Explorer: Releases: Trends Reports*

[87] *TRI Explorer: Releases: Trends Reports*

[88] *TRI Explorer: Releases: Trends Reports*

[89] *Made in the USA*.

[90] J.R. Pegg, "Survey Finds Bush Administration Interfering with EPA Scientists," *Environment News Services,* 24 April 2008. http://www.ens-newswire.com/ens/apr2008/2008-04-24-10.html

[91] Ibid.

[92] Ohio Environmental Protection Agency, Division of Air Pollution Control, *MACT Standards*. http://www.epa.state.oh.us/dapc/mact/mactmain.aspx

[93] 42 UCS §§ 7412(d)(10), (i).

[94] U.S. Environmental Protection Agency, *Controlling Power Plant Emissions: Control Technology*, 1 October 2010. http://www.epa.gov/hg/control_emissions/technology.htm

[95] Institute of Clean Air Companies, *Mercury Control with Fabric Filters from Coal-Fired Boilers*. http://www.icac.com/files/public/ICAC_Hg_Control_with_FF_051606.pdf

[96] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[97] 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

[98] Florida Department of Environmental Protection, "The Everglades Mercury TMDL Pilot Study: Final Report," 2003.

[99] The National Association of Clean Air Agencies, "State/Local Mercury/ Toxics Program for Utilities," 6 April 2010. http://www.4cleanair.org/index.asp

[100] Maryland: The Department of the Environment, "The Maryland Healthy Air Act." http://www.mde.maryland.gov/programs/Air/Pages/MD_HAA.aspx

[101] Ibid.

[102] The National Association of Clean Air Agencies, "State/Local Mercury/ Toxics Program for Utilities," 6 April 2010. http://www.4cleanair.org/index.asp

[103] Ibid.

[104] *TRI Explorer: Releases: Trends Reports*.

[105] *TRI Explorer: Releases: Trends Reports*

[106] *TRI Explorer: Releases: Trends Reports*

[107] *TRI Explorer: Releases: Trends Reports*

[108] *TRI Explorer: Releases: Trends Reports*

[109] United States Energy Information Administration, Form 860, December 2010. http://www.eia.doe.gov/cneaf/electricity/page/eia860.html.

[110] *TRI Explorer: Releases: Trends Reports*

Endnotes

[1] Union of Concerned Scientists, "Coal vs. Wind," 2009. http://www.ucsusa.org/clean_energy/coalvswind/c01.html

[2] Barbara Gottlieb, Alan Lockwood, Molly Rauch, and Kristen Welker-Hood, Physicians for Social Responsibility, *Coal's Assault on Human Health,* November 2009.: http://www.psr.org/assets/pdfs/psr-coal-fullreport.pdf

[3] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, & Environmental Results*, 28 December 2010. http://iaspub.epa.gov/waters10/attains_nation_cy.control?p_report_type=T#tmdl_by_pollutant

[4] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, & Environmental Results: National Summary of State Information,* 3 January 2010. http://iaspub.epa.gov/tmdl_waters10/attains_nation_cy.control#prob_source

[5] St. Louis, Vincent, *Metaalicus: Mercury Experiment to Assess Atmospheric Loading in Canada and the United States,* 2 February 2000. http://www.biology.ualberta.ca/old_site/metaalicus/metaalicus.htm

[6] U.S. Environmental Protection Agency, *Fish Advisories: Advisories Where You Live,* 30 November 2010. http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/states.cfm

[7] 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

[8] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, and Environmental Results: Assessed Waters of United States,* 4 January 2011. http://iaspub.epa.gov/tmdl_waters10/attains_nation_cy.control#prob_source

[9] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[10] Philippe Grandjean, Department of Environmental Health, Harvard School of Public Health, testimony at the Mercury MACT Rule Hearing, sponsored by Congressman Tom Allen, Maine State House, Augusta, Maine, 1 March 2004.

[11] Kathryn Mahaffey, Robert P. Cliffner, and Catherine Bodurow, "Blood Organic Mercury and Dietary Mercury Intake: National Health and Nutrition Examination Survey, 1999 and 2000," *Environmental Health Perspectives*, 112(5): 562-570, april 2004; Kathryn R. Mahaffey, U.S. EPA, "Methylmercury Epidemiology Update," Slide #9 of presentation given at the National Forum on Contaminants in Fish, San Diego, January 2004.

[12] National Center for Health Statistics. National Vital Statistics Reports, Vol. 58, No. 25. "Births, Marriages, Divorces, and Deaths: Provisional Data for 2009." Aug. 27, 2010, pg. 1.

[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* (hereinafter *Mercury Emissions from Coal-fired Power Plants*). Northeast States for Coordinated Air Use Management, 2003.

[15] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[16] U.S. Environmental Protection Agency, *Mercury: Environmental Effects*, 1 October 2010. http://www.epa.gov/mercury/eco.htm

[17] 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

[18] Axelrad, Donald, "Chapter 3B: Mercury and Sulfur Monitoring, Research and Environmental Assessment in South Florida," *South Florida Environmental Report,* 2008. https://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_sfer/tab2236041/volume1/chapters/v1_ch_3b.pdf

[19] O.P. Lane and D.C. Evers, "Methylmercury availability in New England estuaries as indicated by Saltmarsh Sharp-tailed Sparrow, 2004-2005," Report BRI 2006-01, *BioDiversity Research Institute,* Gorham, Maine, 2006. http://www.briloon.org/pub/doc/BRI%20SSTS-Report-05.pdf

[20] The Florida Panther Society, Inc., *Mercury Contamination in Florida Panthers* http://www.panthersociety.org/mercury.html

[21] J.G. Weiner et al, "Partitioning and Bioavailability of Mercury in an Experimentally Acidified Wisconsin Lake," *Environmental Toxicology and Chemistry*, 1990,

[22] Amar, Praveen, *Mercury Emissions from Coal-fired Power Plants: The Case for Regulatory Action* (hereinafter *Mercury Emissions from Coal-fired Power Plants*). Northeast States for Coordinated Air Use Management, 2003.

[23] U.S. Environmental Protection Agency, *TRI Explorer*: *Releases: Trends Reports,* 28 October 2010. http://www.epa.gov/cgi-bin/broker?view=USYR&trilib=TRIQ0&sort=_VIEW_&sort_fmt=1&state=All+states&county=All+counties&chemical=N458&industry=2211&year=All+years&core_year=&tab_rpt=1&_service=oiaa&_program=xp_tri.sasmacr.tristart.macro. (hereinafter *TRI Explorer: Releases: Trends Reports*).

[24] *TRI Explorer: Releases: Trends Reports*

[25] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[26] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[27]New Jersey Mercury Task Force Final Report, November 2001, pg. 15.

[28] United States Geological Survey. "Mercury in the Environment," October 2001.. http://www.usgs.gov/themes/factsheet/146-00/, accessed 6 January 2011.

[29] Kathryn Mahaffey, Robert P. Cliffner, and Catherine Bodurow, "Blood Organic Mercury and Dietary Mercury Intake: National Health and Nutrition Examination Survey, 1999 and 2000," *Environmental Health Perspectives*, 112(5): 562-570, april 2004; Kathryn R. Mahaffey, U.S. EPA, "Methylmercury Epidemiology Update," Slide #9 of presentation given at the National Forum on Contaminants in Fish, San Diego, January 2004.

[30] National Center for Health Statistics. National Vital Statistics Reports, Vol. 58, No. 25. "Births, Marriages, Divorces, and Deaths: Provisional Data for 2009." Aug. 27, 2010, pg. 1.

[31] U.S. Environmental Protection Agency, "What You Need to Know About Mercury in Fish and Shellfish." http://water.epa.gov/scitech/swguidance/fishshellfish/outreach/advice_index.cfm, accessed 6 January 2011.

[32] U.S. Environmental Protection Agency, "What You Need to Know About Mercury in Fish and Shellfish." http://water.epa.gov/scitech/swguidance/fishshellfish/outreach/advice_index.cfm, accessed 6 January 2011.

[33] Utah Department of Environmental Quality. "Persistent Bioaccumulative Toxins," http://www.deq.utah.gov/Issues/Mercury/PBTs.htm, accessed 6 January 2011.

[34] California Office of Health Hazard Assessment, *Methylmercury in Sport Fish: Information for Consumers*, http://oehha.ca.gov/fish/hg/index.html.

[35] John Burke Sullivan and Gary R. Krieger, *Clinical Environmental Health and Toxic Exposures*. 2nd edition, Lippincott Williams & Wilkins, 2001, pg. 856.

[36] California Office of Health Hazard Assessment, *Methylmercury in Sport Fish: Information for Consumers*, http://oehha.ca.gov/fish/hg/index.html.

[37] Farhana Zahir, et al. "Low dose mercury toxicity and human health," *Environmental Toxicology and Pharmacology*, 2005, pg. 4.

[38]Environmental Protection Agency. "Human Exposure to Mercury," http://www.epa.gov/hg/exposure.htm, accessed 6 January 2011.

[39] M.L. Lynch, et al. "Varying coefficient function models to explore interactions between maternal nutritional status and prenatal methylmercury toxicity in the Seychelles Child Development Nutrition Study," *Environmental Research*, December 2010.

[40] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[41] Philippe Grandjean, Department of Environmental Health, Harvard School of Public Health, testimony at the Mercury MACT Rule Hearing, sponsored by Congressman Tom Allen, Maine State House, Augusta, Maine, 1 March 2004.

[42] Dan R. Laks. "Assessment of chronic mercury exposure within the U.S. population, National Health and Nutrition Examination Survey, 1999–2006,"

[43] *Mercury Study Report to Congress*.

[44] Raymond F. Palmer, Steven Blanchard, Zachary Stein, David Mandell, and Claudia Miller, *Environmental mercury release, special education rates, autism disorder: an ecological study of Texas,* 1 November 2004, downloaded from http://www.seedcoalition.org/downloads/autism_study_UTHSCSA.pdf.

[45] Edna M. Yokoo et al., "low Level Methylmercury Exposure Affects Neuropsychological Function in Adults," *Environmental Health*, 2(8), June 2003.

[46] *Mercury Emissions from Coal-fired Power Plants*.

[47] 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.

[48] U.S. Environmental Protection Agency, *Fish Advisories: Advisories Where You Live,* 30 November 2010. http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/states.cfm

[49] U.S. Environmental Protection Agency, "Mercury Update: Impact on Fish Advisories," June 2001. http://www.epa.gov/waterscience/fish/advice/mercupd.pdf

[50] St. Louis, Vincent, *Metaalicus: Mercury Experiment to Assess Atmospheric Loading in Canada and the United States,* 2 February 2000. http://www.biology.ualberta.ca/old_site/metaalicus/metaalicus.htm

[51] U.S. Environmental Protection Agency, *Mercury: Environmental Effects*, 1 October 2010. http://www.epa.gov/mercury/eco.htm

[52] 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

[53] Milton, Joseph, "Mercury Causes Homosexuality in Male Ibises," *Science,* 1 December 2010, DOI: 10.1038/news.2010.641. http://www.nature.com/news/2010/101201/full/news.2010.641.html

[54] J.G. Weiner et al, "Partitioning and Bioavailability of Mercury in an Experimentally Acidified Wisconsin Lake," *Environmental Toxicology and Chemistry*, 1990,

[55] 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

[56] U.S. Environmental Protection Agency, *TRI Explorer*: *Releases: Trends Reports,* 28 October 2010. http://www.epa.gov/cgi-bin/broker?view=USYR&trilib=TRIQ0&sort=_VIEW_&sort_fmt=1&state=All+states&county=All+counties&chemical=N458&industry=2211&year=All+years&core_year=&tab_rpt=1&_service=oiaa&_program=xp_tri.sasmacr.tristart.macro

[57] John Hayes, Pittsburgh Post-Gazette, "New advisories on eating fish caught in local waters," 26 December 2010.

[58] *TRI Explorer: Releases: Trends Reports*.

[59] U.S. Environmental Protection Agency, *Mercury: Environmental Effects*, 1 October 2010. http://www.epa.gov/mercury/eco.htm

[60] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, & Environmental Results*, 28 December 2010. http://iaspub.epa.gov/waters10/attains_nation_cy.control?p_report_type=T#tmdl_by_pollutant

[61] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, & Environmental Results*, 28 December 2010. http://iaspub.epa.gov/waters10/attains_nation_cy.control?p_report_type=T#tmdl_by_pollutant

[62] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, & Environmental Results: National Summary of State Information,* 3 January 2010. http://iaspub.epa.gov/tmdl_waters10/attains_nation_cy.control#prob_source

[63] U.S. Environmental Protection Agency, *Watershed Assessment, Tracking, and Environmental Results: Assessed Waters of United States,* 4 January 2011. http://iaspub.epa.gov/tmdl_waters10/attains_nation_cy.control#prob_source

[64] The Florida Panther Society, Inc., *Mercury Contamination in Florida Panthers* http://www.panthersociety.org/mercury.html

[65] Axelrad, Donald, "Chapter 3B: Mercury and Sulfur Monitoring, Research and Environmental Assessment in South Florida," *South Florida Environmental Report,* 2008. https://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_sfer/tab2236041/volume1/chapters/v1_ch_3b.pdf

[66] O.P. Lane and D.C. Evers, "Methylmercury availability in New England estuaries as indicated by Saltmarsh Sharp-tailed Sparrow, 2004-2005," Report BRI 2006-01, *BioDiversity Research Institute,* Gorham, Maine, 2006. http://www.briloon.org/pub/doc/BRI%20SSTS-Report-05.pdf

[67] The University of Maine, PEARL, "Loons." http://www.pearl.maine.edu/windows/community/Plants_Animals/plants_loons.htm

[68] Casco Bay Estuary Partnership, "What are the Impacts of Mercury on Wildlife?" http://www.cascobay.usm.maine.edu/pdfs/Toxics%20Chapter%206.pdf

[69] Vieira, Nicole, Colorado Division of Wildlife, "Mercury in CO Fisheries: fish consumption advisories and research to mitigate Hg contamination in walleye fisheries," 2009. http://www.cdphe.state.co.us/ap/toxics/Mercuryfish.pdf

[70] U.S. Environmental Protection Agency, "Mercury Study Report to Congress, Volume VI: An Ecological Assessment for Anthropogenic Mercury Emissions in the United States," December 1997. http://www.epa.gov/ttn/oarpg/t3/reports/volume6.pdf

[71] National Wildlife Federation, "Poisoning Wildlife: The Reality of Mercury Pollution," September 2006.

[72] Evers, D.C. and Duron, M., "Developing an exposure profile for mercury in breeding birds of New York and Pennsylvania," 2005.

[73] 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

[74] Upstate Freshwater Institute, "Onondaga Lake," 22 October 2010. http://www.upstatefreshwater.org/html/onondaga_lake.html

[75] Pennsylvania Fish and Boat Association, "Lake Erie," 2011. http://www.fish.state.pa.us/water/lakes/erie/00erie.htm

[76] DeFranza, David, Travel & Nature, "Mercury Levels on the Rise in Lake Erie After Decades of Decline," 15 July 2010.

[77] Amar, Praveen, *Mercury Emissions from Coal-fired Power Plants: The Case for Regulatory Action* (hereinafter *Mercury Emissions from Coal-fired Power Plants*). Northeast States for Coordinated Air Use Management, 2003.

[78] U.S. Environmental Protection Agency, *TRI Explorer*: *Releases: Trends Reports,* 28 October 2010. http://www.epa.gov/cgi-bin/broker?view=USYR&trilib=TRIQ0&sort=_VIEW_&sort_fmt=1&state=All+states&county=All+counties&chemical=N458&industry=2211&year=All+years&core_year=&tab_rpt=1&_service=oiaa&_program=xp_tri.sasmacr.tristart.macro. (hereinafter *TRI Explorer: Releases: Trends Reports*).

[79] Ibid.

[80]University of Wisconsin Solid and Hazardous Waste Education Center. http://www.mercuryinschools.uwex.edu/curriculum/hg_in_env.htm, accessed 6 January 2011.

[81]Douglas Steding and Russell Flegal. "Mercury concentrations in coastal California precipitation: Evidence of local and trans-Pacific fluxes of mercury to North America," *Journal of Geophysical Research*, December 2002, vol. 107 (4764), pg. 7.

[82] *Mercury Emissions from Coal-fired Power Plants*.

[83] U.S. Environmental Protection Agency, *Mercury Study Report to Congress*, December 1997.

[84] David Evers, et al. "Biological Mercury Hotspots in the Northeastern United States and Southeastern Canada," *Bioscience*, January 2007, vol. 57 (1), pg. 29.

[85] *TRI Explorer: Releases: Trends Reports*

[86] *TRI Explorer: Releases: Trends Reports*

[87] *TRI Explorer: Releases: Trends Reports*

[88] *TRI Explorer: Releases: Trends Reports*

[89] *Made in the USA*.

[90] J.R. Pegg, "Survey Finds Bush Administration Interfering with EPA Scientists," *Environment News Services,* 24 April 2008. http://www.ens-newswire.com/ens/apr2008/2008-04-24-10.html

[91] Ibid.

[92] Ohio Environmental Protection Agency, Division of Air Pollution Control, *MACT Standards*. http://www.epa.state.oh.us/dapc/mact/mactmain.aspx

[93] 42 UCS §§ 7412(d)(10), (i).

[94] U.S. Environmental Protection Agency, *Controlling Power Plant Emissions: Control Technology*, 1 October 2010. http://www.epa.gov/hg/control_emissions/technology.htm

[95] Institute of Clean Air Companies, *Mercury Control with Fabric Filters from Coal-Fired Boilers*. http://www.icac.com/files/public/ICAC_Hg_Control_with_FF_051606.pdf

[96] National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* (Washington, D.C.: National Academy Press, 2000); U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6.

[97] 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

[98] Florida Department of Environmental Protection, "The Everglades Mercury TMDL Pilot Study: Final Report," 2003.

[99] The National Association of Clean Air Agencies, "State/Local Mercury/ Toxics Program for Utilities," 6 April 2010. http://www.4cleanair.org/index.asp

[100] Maryland: The Department of the Environment, "The Maryland Healthy Air Act." http://www.mde.maryland.gov/programs/Air/Pages/MD_HAA.aspx

[101] Ibid.

[102] The National Association of Clean Air Agencies, "State/Local Mercury/ Toxics Program for Utilities," 6 April 2010. http://www.4cleanair.org/index.asp

[103] Ibid.

[104] *TRI Explorer: Releases: Trends Reports*.

[105] *TRI Explorer: Releases: Trends Reports*

[106] *TRI Explorer: Releases: Trends Reports*

[107] *TRI Explorer: Releases: Trends Reports*

[108] *TRI Explorer: Releases: Trends Reports*

[109] United States Energy Information Administration, Form 860, December 2010. http://www.eia.doe.gov/cneaf/electricity/page/eia860.html.

[110] *TRI Explorer: Releases: Trends Reports*