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# Made in the U.S.A.

# Power Plants and Mercury Pollution Across the Country



**Environment Colorado Research & Policy Center** 

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# Acknowledgements

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Power plants are the largest industrial source of U.S. air emissions of mercury, a potent neurotoxin that poses serious health hazards. Mercury is particularly harmful to the developing brain; even lowcan cause level exposure learning disabilities, developmental delays, lowered IQ, and problems with attention and memory. While current law requires swift, steep reductions in power plant mercury Bush emissions. the administration recently promulgated regulations that allow power plants to avoid the Clean Air Act requirement to reduce mercury and other toxic air pollutants quickly and by the maximum achievable amount. This report uses the most recent available data reported to the U.S. Environmental Protection Agency's (EPA) Toxics Release Inventory to analyze power plant mercury emissions by state, county, zip code, facility, and company.

When power plants burn coal or wastes containing mercury, their smokestacks emit mercury, some of which is washed out of the air onto land and into waterways, converted into where it may be methylmercury, an organic form of mercury that builds up in fish. Scientists found that a gram of mercury, about a drop, deposited in a mid-sized Wisconsin lake over the course of a year was enough to contaminate the lake's fish.

Eating contaminated fish is the primary pathway for human exposure. Indeed, mercury pollution is now so pervasive that 44 states, the U.S. Food and Drug Administration (FDA), and the EPA have issued fish consumption advisories warning people to avoid or limit their consumption of certain types of fish. Moreover, EPA scientists estimate that one in six women of childbearing age has enough mercury in her blood to put her child at risk should she become pregnant.

This report analyzes the most recent EPA data on mercury air emissions from power plants. Key findings in the report include the following:

- Power plants in the U.S. collectively emitted 90,108 pounds of mercury into the air in 2003. Texas, Ohio, Pennsylvania, Indiana, and Alabama were the states with the most mercury air emissions from power plants in 2003.
- Counties with the highest mercury air emissions from power plants were concentrated in states in the Gulf Coast. Midwest. and Mid-Atlantic regions. More than half of the top 50 counties with the highest mercury air emissions were located in just seven states: Alabama, Florida, Indiana, Ohio, Pennsylvania, Texas, and West Virginia. In the top county. Armstrong Pennsylvania, County, power plant mercury emissions totaled 1,527 pounds in 2003.
- The most polluting 100 facilities emitted 57,242 pounds of mercury into the air in 2003, or 64% of power plant mercury emissions. Most of these facilities—nearly 60%—were located in just nine states: Alabama, Illinois, Indiana, Kentucky, North Dakota,

Ohio, Pennsylvania, Texas, and West Virginia. Five of the 10 most polluting facilities were located in Texas.

The most polluting 15 companies emitted 48,353 pounds of mercury in 2003, or 54% of total U.S. power plant mercury emissions. Three companies— American Electric Power, Southern Company, and Reliant Energy, which collectively own 57 facilities—emitted 19,694 pounds of mercury in 2003, or 22% of total U.S. power plant mercury emissions.

Rather than let many of the nation's power plants continue to emit or even increase their mercury emissions, the Bush administration should protect public health by rewriting its mercury rules to ensure the maximum, timely reductions in power plant mercury pollution that the law requires. When power plants burn coal or wastes containing mercury, their smokestacks emit mercury, a persistent bioaccumulative toxin that builds up in body tissue. Rain, snow, and dust particles "wash" mercury out of the air onto land and into waterways, where some of it is converted to methylmercury, an organic form of mercury that is especially toxic to humans and wildlife.<sup>1</sup>

Power plants are the largest source of mercury air emissions in the U.S., releasing about 41% of the national total per year.<sup>2</sup> According the Environmental to Protection Agency (EPA), while U.S. sources are responsible for 3% of global mercury emissions, 60% of the mercury deposited in the U.S. comes from domestic, sources;<sup>3</sup> manmade 30% about of continental U.S. mercury deposition comes from U.S. power plants alone.<sup>4</sup> Deposition rates differ by region and locale, and mercury deposition can be much higher near individual sources.<sup>5</sup> For instance, in the southeast, the EPA estimates that U.S.-based sources account for 37% of total mercury deposition in Georgia, 58% in North Carolina, 62% in South Carolina, and 68% in Florida.<sup>6</sup> Moreover, a 2003 analysis of EPA data found that in-state sources of mercury can account for 50-80% of mercury deposition at the "hot spots" within each state with the highest levels of mercury.<sup>7</sup>

Notably, even minute amounts of mercury can be significant. At Wisconsin's Little Rock Lake, for instance, researchers found that a single gram of mercury, about a drop, deposited over the course of a single

year was enough to account for all of the mercury in the lake's estimated fish population.<sup>8</sup> Moreover, because mercury is a bioaccumulative toxin that is taken in faster than it is eliminated, it biomagnifies up the food chain and builds up in body tissue over time.9 Fish at the top of the aquatic food chain can have mercury levels approximately one to ten million greater times than levels the in surrounding waters.<sup>10</sup>

The primary way that people in the U.S. are exposed to methylmercury is by eating contaminated fish,<sup>11</sup> which absorb mercury from water through their gills and from eating plants, organisms, and other fish.<sup>12</sup> In addition, mercury can pass through the human placenta to developing fetuses and through breast milk to nursing infants.<sup>13</sup>

A potent neurotoxin, mercury poses significant human health hazards. Mercury affect multiple can organ systems, including the nervous, cardiovascular, and immune systems, throughout an individual's lifetime.<sup>14</sup> Infants and children are particularly at risk of problems associated with mercury exposure because their nervous systems continue to develop until about age 14.15 Exposure mercury to affects the developing brain, causing vision and difficulties, hearing delays the in development of motor skills and language acquisition, lowered IQ, and problems with attention and memory; these developmental deficits may translate into a wide range of learning difficulties once children are in school, resulting in lifelong consequences.<sup>16</sup> EPA scientists estimate that one in six women of childbearing age has enough mercury in her body to put her child at risk should she become pregnant.<sup>17</sup>

Adults exposed to mercury may experience neurocognitive defects similar to those seen in children exposed prenatally<sup>18</sup> as well as adverse effects on fertility and blood pressure regulation.<sup>19</sup> Mercury exposure also is associated with an increased risk of heart attacks.<sup>20</sup>

Forty-four states currently have active mercury-related fish consumption advisories.<sup>21</sup> Half of these advisories are statewide advisories covering all of the state's inland lakes and/or rivers.<sup>22</sup> In addition, in 2004, the Food and Drug Administration (FDA) and the EPA issued a joint national advisory warning women who might become pregnant, women who are pregnant, nursing mothers, and young children to avoid or limit their consumption of certain fish and shellfish, including shark, swordfish, and tuna.<sup>23</sup>

Fortunately, studies show that reducing industrial mercury emissions leads to rapid, substantial reductions of mercury in wildlife. The state of Florida, the EPA, and the U.S. Geological Survey recently issued a study concluding that the levels of mercury found in largemouth bass and other wildlife in the Everglades have declined by about 80% since state and federal agencies required municipal and medical waste incinerators to cut their emissions.<sup>24</sup> mercury Similarly. in Wisconsin, mercury a decrease in per deposition of 10% year was accompanied by a 5% per year decline in mercury levels in yellow perch.<sup>25</sup>

Reducing mercury from power plants is critical to reducing toxic mercury in fish. Unfortunately, the Bush administration recently promulgated regulations that give power plants until at least 2018 before having to make even modest mercury reductions and-even then-allow these plants to buy mercury credits rather than install controls to reduce their mercury Under the Clean Air Act, emissions. sources of hazardous air pollutants, including mercury, are required to reduce these toxic emissions by the maximum achievable amount within a three-year time frame. Working closely with the utility industry, the Bush administration has sought to avoid this requirement by removing power plants from the list of sources subject to this technology-based standard and promulgating a cap-andtrade system for mercury emissions instead.<sup>a</sup>

Specifically, in March 2005, the EPA finalized a "delisting rule" that rescinds the agency's prior determination, in 2000, that it was appropriate and necessary to regulate power plant mercury emissions under Section 112 of the Clean Air Act.<sup>26</sup> Under 112. hazardous Section air pollutants, including mercury,<sup>27</sup> are regulated using a "maximum achievable

control technology" (MACT) standard, and controls are required within three years after the EPA finalizes an applicable MACT standard by regulation.<sup>28</sup> Section requires 112also that certain determinations be made before an industry may be removed from the list of sources subject to MACT standards, including that no industry source-e.g., a single power plant—emits hazardous air pollutants in amounts that adversely affect public health or the environment.<sup>29</sup> EPA. however, did not even attempt to make these determinations before removing power plants from the source list. Rather, the agency simply asserted that "EPA, in its expert judgment, concludes that utility [mercury] emissions do not pose hazards to public health."30

Delisting power plants as a source of hazardous air pollutants subject to MACT standards cleared the way for the EPA to adopt an industry-favored "cap-and-trade rule," also announced in March and finalized in May 2005.<sup>31</sup> The cap-andtrade rule allows power plants to delay even modest mercury emissions reductions until at least 2018. EPA promulgated the rule pursuant to Section 111(d) of the Clean Air Act, which has never been used to regulate a hazardous air pollutant.<sup>32</sup> Indeed, this is the first time that trading of a toxic air pollutant has ever been permitted in the U.S.

The cap-and-trade rule sets national caps on mercury emissions from power plants of 38 tons per year in 2010—a 21% reduction—and 15 tons—touted as a 70% reduction—in 2018. The EPA's own

<sup>&</sup>lt;sup>a</sup> The administration's "Clear Skies" initiative includes similar mercury provisions. The initiative would repeal the Clean Air Act's maximum controls requirement for power plants and establish a cap-and-trade system for power plant mercury emissions with national caps of 26 tons per year in 2010 and 15 tons in 2018. See <a href="http://www.epa.gov/air/clearskies/basic.html">www.epa.gov/air/clearskies/basic.html</a>. The most recent version of "Clear Skies," S. 131, as amended in committee on March 9, 2005, would set the caps at 34 tons per year in 2016 and 15 tons in 2018 and exempt power plant units emitting 30 or fewer pounds of mercury per year from having to reduce their mercury emissions.

analysis, however, projects actual emissions of 24.3 tons as late as 2020-less than a 50% reduction.<sup>33</sup> Moreover. the Congressional Research Service has concluded that "full compliance with the 70% reduction might be delayed until 2030"-or beyond-due to the rule's banking provisions.<sup>34</sup> By comparison, compliance with the maximum controls standard for toxic air pollution under the Clean Air Act would result in mercury reductions on the order of 90% nationally by 2008-from about 48 tons in 1999 to five tons per year in 2008.35

In addition to its weak and delayed national caps, the rule permits power plants to buy and trade mercury pollution credits rather than requiring every plant to make emissions reductions. Trading mercury credits is "very risky," according to prominent scientists, and would likely contribute to mercury "hot spots," areas with high levels of mercury deposition.<sup>36</sup>

Finally, the rule allows power plants to avoid taking specific action to reduce their mercury emissions until at least 2018, the second phase of the rule. Indeed, the EPA chose 38 tons as the first cap precisely because power plants could meet the cap as a "co-benefit" of compliance with the Clean Air Interstate Rule, an unrelated rule to reduce the pollutants that form soot and smog.<sup>37</sup> Moreover, the EPA projects that by 2020, only 4% of coalfired power plants units will have installed mercury-specific control technology.<sup>38</sup>

Both the delisting rule and the cap-andtrade rule are the subject of numerous legal challenges.<sup>39</sup> To date, 16 states have challenged both one or of the administration's mercury rules in court or petitioned the EPA for reconsideration of the delisting rule. These states include California, Connecticut, Delaware, Illinois, Maine. Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New Mexico, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin.<sup>40</sup> environmental Numerous and public health advocates also have challenged the rules,<sup>41</sup> as have four national public health groups,42 several Maine Native American tribes,43 and the City of Baltimore.44

For a brief chronology of events in the EPA's mercury rulemaking, see the following box, "A Regulatory Odyssey."

#### A Regulatory Odyssey: Major Events in the EPA's Mercury Rulemaking

Since 1990, the EPA has repeatedly changed course on regulation of power plant mercury emissions, first delaying action for years, then moving forward during the latter half of the Clinton administration to issue a MACT standard, and now backpedaling under the Bush administration to establish a cap-and-trade system that treats mercury like a conventional air pollutant rather than a hazardous one. A chronology of major events in the regulatory odyssey follows:

**1990:** Congress amends the Clean Air Act's air toxics provisions. With regard to power plants, Congress requires EPA to complete a study on health hazards from power plant emissions of hazardous air pollutants<sup>45</sup> and directs the EPA, after considering the results, to determine whether regulation of utilities is "appropriate and necessary" under Section 112 of the Clean Air Act.<sup>46</sup> Congress also requires the EPA to complete a study on mercury emissions from utilities, municipal waste incinerators, and other sources.<sup>47</sup>

**1997:** EPA releases its mercury study report to Congress on U.S. mercury emissions by source, health and environmental implications of these emissions, and the availability and cost of control technologies.<sup>48</sup>

**1998:** EPA releases its study on health hazards from power plant emissions of hazardous air pollutants, finding mercury to be the hazardous air pollutant of greatest concern.<sup>49</sup> EPA also agrees to a consent decree setting several deadlines for regulatory action.<sup>50</sup>

**2000:** EPA issues a regulatory determination that power plants are a major source of hazardous air pollutants and that it is appropriate and necessary to regulate mercury and other air toxics from utilities under Section 112.<sup>51</sup> This determination triggers the regulatory process for developing a MACT standard. In announcing its decision, the agency notes that "mercury emissions from power plants pose significant hazards to public health and must be reduced."<sup>52</sup>

**2001:** During a presentation to the Edison Electric Institute, the trade association for electric utilities, EPA informs industry that a MACT standard—depending on how the standard is designed—would require national reductions in mercury emissions of 89%, 90%, or 98% by December 2007.<sup>53</sup> Such a rule would reduce power plant mercury emissions to about five tons per year,<sup>54</sup> consistent with reductions achieved in other industries, such as medical and municipal waste incinerators. Incinerators, which once rivaled power plants in their mercury emissions, reduced these emissions by about 90% following issuance of MACT standards in the mid-1990s.<sup>55</sup>

continued

**2004:** EPA proposes reversing its 2000 determination in order to establish a national capand-trade system.<sup>56</sup> Press reports reveal that entire sections of the proposed rule were lifted verbatim from memos written by utility representatives<sup>57</sup> and expose White House manipulation of the rulemaking process.<sup>58</sup> EPA's Children's Health Protection Advisory Committee warns that the proposal "does not sufficiently protect our nation's children."<sup>59</sup> EPA receives a record 680,000 public comments on the proposal, the vast majority of which call for stronger mercury protections.<sup>60</sup> Sportsmen's groups,<sup>61</sup> medical and health groups and professionals,<sup>62</sup> faith organizations,<sup>63</sup> and a wide variety of environmental, educational, and children's groups<sup>64</sup> oppose the proposal. Forty-five U.S. Senators,<sup>65</sup> 184 members of the U.S. House of Representatives,<sup>66</sup> and 12 state attorneys general and chief environmental enforcement officers<sup>67</sup> also oppose the plan.

**2005:** In February, the EPA Inspector General issues a highly critical report finding EPA staff were instructed to arrive at a predetermined outcome favored by industry.<sup>68</sup> The Government Accountability Office issues a highly critical report "identifying four major shortcomings in the economic analysis underlying EPA's proposed mercury control options that limit its usefulness for informing decision makers about the economic trade-offs of the different policy options."<sup>69</sup> In March, EPA announces its final mercury rules: the delisting rule, which discards the MACT approach, and the cap-and-trade rule, which sets the first-phase cap at 38 tons and is thus even weaker than the proposed 34-ton cap. Press reports later reveal that EPA did not consider studies by its own water office<sup>70</sup> and the Harvard Center for Risk Analysis<sup>71</sup> showing substantial benefits from reducing power plant mercury emissions.<sup>72</sup> Sixteen states, as well as numerous public health groups, several Maine Native American tribes, and the City of Baltimore, subsequently challenge one or both rules in court and/or petition the EPA for reconsideration of the delisting rule.

This report uses 2003 data reported to EPA's Toxics Release Inventory (TRI) to analyze power plant mercury air emissions by state, county, zip code, facility, and company. The data, the most recent available from the TRI, was reported to EPA by covered facilities based on monitoring data or estimates and then compiled by EPA for public access via the TRI database.<sup>73</sup>

While the TRI covers most mercury air emissions, some industries and facilities are not required to report to the TRI, including medical, municipal, and sewage sludge waste incinerators and facilities that manufacture, process, or release 10 or fewer pounds of mercury annually. Our analysis covers only mercury emissions reported to the TRI. To the best of our knowledge, the TRI's exclusion of waste incinerators and facilities under the 10pound reporting threshold does not materially affect our findings concerning the amount of power plant mercury air emissions by state, county, zip code, facility, and company.

#### Power Plant Mercury Emissions by State

Power plants in 47 states and the District of Columbia reported mercury air emissions to the TRI in 2003. Together, these plants collectively emitted 90,108 pounds of mercury into the air in 2003.

The 10 states with the most mercury air emissions from power plants accounted for well over half—56%—of total U.S. power plant mercury air emissions reported to the TRI in 2003. Texas, Ohio, Pennsylvania, Indiana, and Alabama were the states with the most mercury emissions from power plants in 2003, followed by Illinois, West Virginia, Kentucky, Missouri, and North Carolina. (See Table 1.)

States with the lowest mercury air emissions from in-state power plants were concentrated in the Northeast and on the West Coast. Idaho. Rhode Island. Vermont, Maine, and the District of Columbia had no or virtually no power plant mercury air emissions in 2003. However, even states with low power plant mercury air emissions are affected by mercurv transported globally and regionally. States in the Northeast, for instance, feel the effects of mercury As a emissions from upwind states.<sup>74</sup> result, Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont have statewide fish consumption advisories for their inland lakes and rivers.75

#### Power Plant Mercury Emissions by County and Zip Code

Counties with the highest mercury air emissions from power plants were concentrated in states in the Gulf Coast, Midwest, and Mid-Atlantic regions. More than half of the top 50 counties—28 counties, or 56%—with the highest mercury emissions were located in just seven states: Alabama, Florida, Indiana, Ohio, Pennsylvania, Texas, and West Virginia.

Rank	State	Reported Mercury Air Emissions from Power Plants in State (pounds)	Reported Mercury Air Emissions from All Covered Sources in State (pounds)	Percentage of All Covered Mercury Air Emissions from State's Power Plants <sup>b</sup>	Rank	State	Reported Mercury Air Emissions from Power Plants in State (pounds)	Reported Mercury Air Emissions from All Covered Sources in State (pounds)	Percentage of All Covered Mercury Air Emissions from State's Power Plants
1	TX	9,099	13,498	67%	27	MT	986	1,068	92%
2	OH	7,107	10,218	70%	28	AR	962	1,335	72%
3	PA	6,789	10,032	68%	29	NY	899	1,786	50%
4	IN	4,885	6,276	78%	30	MS	802	873	92%
5	AL	4,399	6,431	68%	31	SC	607	2,053	30%
6	IL	4,125	7,023	59%	32	NJ	450	1,316	34%
7	WV	3,948	5,344	74%	33	UT	449	889	51%
8	KY	3,486	3,638	96%	34	NE	389	567	69%
9	MO	3,289	3,955	83%	35	HI	362	367	99%
10	NC	3,038	4,124	74%	36	C0	343	793	43%
11	FL	2,982	3,272	91%	37	NV	272	5,137	5%
12	GA	2,805	3,966	71%	38	DE	242	1,086	22%
13	ND	2,512	2,546	99%	39	OR	221	804	28%
14	MI	2,462	2,880	85%	40	SD	213	231	92%
15	WI	2,457	3,761	65%	41	MA	205	210	98%
16	IA	2,453	3,216	76%	42	NH	136	137	99%
17	KS	2,126	2,818	75%	43	WA	113	320	35%
18	TN	2,023	3,598	56%	44	CT	102	117	87%
19	WY	1,800	1,915	94%	45	AK	32	211	15%
20	AZ	1,696	1,870	91%	46	CA	18	4,707	0%
21	MD	1,659	1,900	87%	47	DC	0.5	0.5	100%
22	MN	1,629	1,886	86%	48	ME	0.0000015	74	0%
23	LA	1,434	4,522	32%	49	ID	0	620	0%
24	0K	1,382	1,659	83%	49	RI	0	0.001	0%
25	VA	1,379	2,325	59%	49	VT	0	0	n/a
26	NM	1,341	1,355	99%	Nation	al	90,108	138,729	<b>65%</b> <sup>76</sup>

#### Table 1. Power Plant Mercury Air Emissions by State, 2003

<sup>&</sup>lt;sup>b</sup> As noted above, TRI does not include waste incinerators, which are a significant source of mercury air emissions, or facilities under the 10-pound reporting threshold. As such, these exclusions may materially affect calculations of power plant mercury emissions as a percentage of all sources of mercury air emissions. For states in the Mid-Atlantic region, for instance, such calculations may understate or overstate the actual percentage by about 5-20 percentage points. Compare the analysis of sources of mercury emissions in five Mid-Atlantic states in National Wildlife Federation (NWF) et al., *Mercury in the Mid-Atlantic: Are States Meeting the Challenge?*, January 2005, which incorporated data provided by states as well as data reported to the TRI. In New Jersey, for instance, calculating power plant mercury emissions as a percentage of all sources of mercury air emissions yields a lower figure using TRI data alone than using a combination of TRI and state data; based on TRI data alone, power plants accounted for 34% of mercury emissions in 2003, 15 points less than NWF found using 2002 data from both the TRI and the New Jersey Department of Environmental Protection. In New York, by contrast, using TRI data alone yielded a higher figure, 50% in 2003, 11 points more than NWF found using 2003 and 2004 data from the New York Department of Environmental Conservation as well as 2002 TRI data. While the datasets used in this report and the NWF report differ in time period as well as source, which may account for some of the differing results above, readers should be aware that exclusions in the TRI database may materially affect calculations of power plant mercury emissions as a percentage of all sources of mercury air emissions.

Overall, the states with mercury-emitting power plants in the most counties were Pennsylvania (22), Illinois (22), Indiana (19), Virginia (19), Florida (18), Ohio (18), and Texas (18).

Zip codes with the highest power plant mercury air emissions were concentrated in the same Gulf Coast, Midwest, and Mid-Atlantic states and largely paralleled highest mercury counties with the emissions. Overall. the states with mercury-emitting power plants in the most zip codes were Pennsylvania (33), Illinois (24), Ohio (22), Florida (21), Indiana (19), North Carolina (19), Texas (19), and Virginia (19).

Power plants in the top 15 counties emitted 17,973 pounds of mercury in 2003, or 20% of total U.S. power plant mercury air emissions. (See Table 2.) In the top county, Armstrong County, Pennsylvania, power plant mercury emissions totaled 1,527 pounds, more than the total amount of mercury emitted in the bottom quarter (23%) of all counties in the U.S. with mercury-emitting power plants.

Power plants in the top 15 zip codes emitted 16,428 pounds of mercury in 2003, or 18% of total U.S. power plant mercury air emissions. (See Table 3.) In the top zip code, 75455 in Mt. Pleasant, Texas, power plant mercury emissions totaled 1,404 pounds.

See Appendices A.1. and B.1. for a listing of the top 100 counties and zip codes with the highest power plant mercury air emissions. In addition, see Appendices A.2. and B.2. for a listing of the county and zip code with the highest power plant mercury air emissions in each state.

Table 2. Counties with	Highest Power Plant Mercury
Air Emissions, 2003	

Rank	State	County	Reported Mercury Air Emissions from Power Plants (pounds)
1	PA	ARMSTRONG	1,527
2	ТХ	TITUS	1,404
3	ТХ	LIMESTONE	1,386
4	PA	INDIANA	1,337
5	NM	SAN JUAN	1,308
6	OH	JEFFERSON	1,281
7	OH	COSHOCTON	1,222
8	KS	POTTAWATOMIE	1,197
9	ТХ	RUSK	1,114
10	ND	MERCER	1,086
11	OH	ADAMS	1,066
12	ТХ	HARRISON	1,040
13	ТХ	FORT BEND	1,033
14	AL	JEFFERSON	994
15	AL	SHELBY	978

Table 3. Zip Codes with Highest Power PlantMercury Air Emissions, 2003

Rank	State	Zip Code	City	Reported Mercury Air Emissions from Power Plants (pounds)
1	ТХ	75455	MOUNT PLEASANT	1,404
2	TX	75846	JEWETT	1,386
3	PA	15774	SHELOCTA	1,280
4	OH	43811	CONESVILLE	1,222
5	KS	66536	SAINT MARYS	1,197
6	TX	75691	TATUM	1,114
7	OH	45144	MANCHESTER	1,066
8	ТХ	75650	HALLSVILLE	1,040
9	ТХ	77481	THOMPSONS	1,033
10	AL	35130	QUINTON	994
11	AL	35186	WILSONVILLE	978
12	MO	63055	LABADIE	960
13	ND	58576	UNDERWOOD	927
14	LA	70760	NEW ROADS	919
15	MN	55308	BECKER	908

#### Power Plant Mercury Emissions by Facility

Most of the mercury air emissions from power plants come from comparatively few facilities. Of the 489 U.S. power plants reporting mercury air emissions to the TRI in 2003, the most polluting 100 facilities—about 20%—emitted 57,242 pounds of mercury in 2003, or 64% of total U.S. power plant mercury air emissions. The most polluting 15 plants—3% of power plant facilities—emitted 16,264 pounds of mercury in 2003, accounting for 18% of total U.S. power plant mercury air emissions. (See Table 4.) Most of the top 100 power plants—nearly 60%—were located in just nine states: Alabama, Illinois, Indiana, Kentucky, North Dakota, Ohio, Pennsylvania, Texas, and West Virginia. Five of the 10 highest power plant mercury emitters were in Texas alone. By contrast, the bottom 100 power plants emitted 681 pounds of mercury into the air, less than one percent of total U.S. power plant mercury air emissions in 2003.

See Appendix C.1. for a complete listing of power plant mercury air emissions by facility, as reported to the TRI. In addition, see Appendix C.2. for a listing of the facility with the highest power plant mercury emissions in each state.

Rank	State	Facility	Parent Company*	County	Zip	Reported Mercury Air Emissions from Power Plants (pounds)
1	ТХ	TXU MONTICELLO STEAM ELECTRIC STN & LIGNITE MINE	TXU ENERGY	TITUS	75455	1,404
2	ТХ	LIMESTONE ELECTRIC GENERATING STATION	TEXAS GENCO LP	LIMESTONE	75846	1,386
3	PA	RELIANT ENERGY KEYSTONE POWER PLANT	RELIANT ENERGY INC	ARMSTRONG	15774	1,280
4	OH	AMERICAN ELECTRIC POWER CONESVILLE PLANT	AMERICAN ELECTRIC POWER	COSHOCTON	43811	1,222
5	KS	JEFFREY ENERGY CENTER	WESTAR ENERGY INC	POTTAWATOMIE	66536	1,197
6	TX	MARTIN LAKE STEAM ELECTRIC STATION & LIGNITE MINE	TXU ENERGY	RUSK	75691	1,114
7	TX	AMERICAN ELECTRIC POWER H.W. PIRKEY POWER PLANT	AMERICAN ELECTRIC POWER	HARRISON	75650	1,040
8	TX	W A PARISH ELECTRIC GENERATING STATION	TEXAS GENCO LP	FORT BEND	77481	1,033
9	AL	ALABAMA POWER CO MILLER STEAM PLANT	SOUTHERN CO	JEFFERSON	35130	994
10	AL	ALABAMA POWER CO GASTON STEAM PLANT	SOUTHERN CO	SHELBY	35186	978
11	MO	AMERENUE LABADIE POWER PLANT	AMEREN CORP	FRANKLIN	63055	960
12	ND	GREAT RIVER ENERGY COAL CREEK STATION	GREAT RIVER ENERGY	MC LEAN	58576	927
13	LA	BIG CAJUN 2	NRG ENERGY INC	POINTE COUPEE	70760	919
14	MN	NORTHERN STATES POWER CO.	XCEL ENERGY	SHERBURNE	55308	908
15	WV	AMERICAN ELECTRIC POWER AMOS PLANT	AMERICAN ELECTRIC POWER	PUTNAM	25213	902

Table 4 Power	Plant Mercury	Air Emissions	by Facility, 2003
Table 4. I ower	r i fant Mercury	AIF LIMSSIONS	by racinty, 2005

\* This may not reflect changes in ownership since 2003, the year for which facilities are reporting.

#### Power Plant Mercury Emissions by Company

Most of the mercury air emissions from power plants come from a small number of companies. Of the 151 companies with power plant mercury air emissions reported to the TRI in 2003, the top 15 companies emitted 48,353 pounds of mercury in 2003, or 54% of total U.S. power plant mercury emissions. (See Table 5.) These 15 companies own 170 mercury-emitting power plants, one-third of all U.S. power plant facilities reporting mercury air emissions to the TRI. Three companies—American Electric Power, Southern Company, and Reliant Energy, which collectively own 57 facilities emitted 19,694 pounds of mercury into the air in 2003, or 22% of total U.S. power plant mercury air emissions.

See Appendix D for a complete listing of power plant mercury air emissions by company, using TRI data and ownership information provided on company websites.

Rank	Parent Company*	Headquarters Location	Reported Mercury Air Emissions from Power Plants (pounds)	# of Plants Reporting Mercury Air Emissions	Location of Plants
1	AMERICAN ELECTRIC POWER	Columbus, OH	8,797	22	AR, IN, KY, OH, OK, TX, VA, WV
2	SOUTHERN CO	Atlanta, GA	6,992	22	AL, FL, GA, MS
3	RELIANT ENERGY INC	Houston, TX	3,905	13	FL, NY, OH, PA
4	U.S. TENNESSEE VALLEY AUTHORITY	Knoxville, TN	3,364	11	AL, KY, TN
5	TXU ENERGY	Dallas, TX	3,239	4	ТХ
6	AMEREN CORP	St. Louis, MO	2,946	11	IL, MO
7	EDISON INTERNATIONAL	Rosemead, CA	2,718	10	IL, NV, PA, WV
8	TEXAS GENCO LP	Houston, TX	2,464	3	ТХ
9	CINERGY CORP	Cincinnati, OH	2,375	11	IL, IN, KY, OH, VA
10	ALLEGHENY ENERGY INC	Greensburg, PA	2,075	9	MD, PA, WV
11	PROGRESS ENERGY	Raleigh, NC	2,029	11	FL, NC, SC
12	DOMINION	Richmond, VA	1,993	14	IL, IN, VA, WV
13	FIRSTENERGY CORP	Akron, OH	1,981	7	OH, PA
14	ALLIANT ENERGY	Madison, WI	1,793	11	IA, WI
15	LG & E ENERGY CORP	Louisville, KY	1,683	11	KY, NC

\* This may not reflect changes in ownership since 2003, the year for which facilities are reporting.

#### Southern Company: A Case Study

Power plants owned by Southern Company, which touts itself as a leader in the research and development of mercury control technology,<sup>77</sup> emitted 6,992 pounds of mercury into the air in 2003, making it the 2<sup>nd</sup> largest power plant mercury polluter in the nation. The company has 22 plants in four states, including Georgia, Alabama, Mississippi, and Florida.

Southern Company is also one of the most active lobbyists on utility issues.<sup>78</sup> Between 1998 and 2004, Southern spent almost \$35 million on lobbying in Washington, D.C.<sup>79</sup> In 2004 alone, the company spent \$11.5 million dollars on lobbying,<sup>80</sup> including on the proposed "Clear Skies" legislation, which would repeal the Clean Air Act's requirement that every power plant reduce its mercury pollution by the maximum possible extent and repeal or weaken other major power plant cleanup requirements.<sup>81</sup>

Southern Company also has contributed millions of dollars to federal candidates and parties through its political action committee (PAC) and its employees. The company's PAC and employees gave \$1.1 million, \$1.9 million, and \$1.5 million to federal candidates and parties during the 2004, 2002, and 2000 election cycles, respectively, including the maximum PAC contribution of \$5,000 to presidential candidate George W. Bush for both the 2000 and 2004 presidential elections.<sup>82</sup>

To comply with the law and protect public health, the Bush administration should reduce mercury emissions from power plants swiftly and by the maximum achievable amount. Fortunately, technologies to achieve these reductions are already available and cost-effective.

Nearly five years ago, in 2000, the EPA found that "there are cost-effective ways of controlling mercury emissions from power plants. Technologies available today and technologies expected to be available in the near future can eliminate most of the mercury from utilities at a cost far lower than one percent of utility industry revenues."<sup>83</sup> While the EPA now claims that technological and cost factors preclude reductions beyond its cap-andtrade plan,<sup>84</sup> the Congressional Research Service found that "[a]nalysis by other experts came to a different conclusion."<sup>85</sup>

First, effective technology already exists to substantially reduce mercury emissions from power plants using all major types of Numerous full-scale tests of coal. activated carbon injection (ACI), a control technology that has reduced mercury emissions from medical and municipal waste incinerators by more than 90% since the mid-90s, have shown similar success in reducing power plant mercury emissions. Examples include Alabama Power's multiunit Gaston plant, which obtained up to 90% reductions for a boiler burning bituminous coal: Sunflower Electric's Holcomb Station in Kansas, which reported reductions in excess of 90% on

subbituminous coal; and Great River Station in Energy's Stanton North Dakota, which reported up to 81% control with untreated carbon and up to 96% control with brominated carbon on a boiler burning lignite coal.<sup>86</sup> As two power company representatives, the Electric Power Research Institute, the U.S. Department of Energy, and ADA-ES, a control leading pollution company, concluded: "Recent full-scale field tests have proven the effectiveness of activated carbon injection for reducing mercury emissions. The technology is ideally suited for use on existing coal-fired boilers . . . . "87

Moreover, while ACI is currently the leading mercury control technology, there are numerous other methods of reducing mercury from coal-fired power plants. Substantial reductions  $\mathbf{in}$ mercury emissions can be achieved simply by optimizing pollution controls that have already been installed on power plants to reduce the pollutants that form soot and smog. Indeed, the EPA's own Office of Research and Development found that fabric filters already installed on power plants could achieve 90% mercury reductions for bituminous coal and 72% reductions for subbituminous coal and that adding a scrubber increased mercury reductions on bituminous coal to 98%.88 In addition, several control technologies other than ACI are currently available or in various stages of development and testing.89

Second, mercury control technology for power plants is commercially available today. Several power plants have already agreed to install such technology to reduce mercury emissions. For example, in August 2005, ADA-ES announced a contract to install ACI at a 790-megawatt power plant being built in the Midwest that is expected to burn subbituminous Powder River Basin coal.<sup>90</sup> A few months earlier, in May, Rocky Mountain Power agreed to install either ACI or a similar technology approved by Montana's Department of Environmental Quality for a new power plant, the Hardin Generating Station.<sup>91</sup> And in March, the San Juan Generating Station, a 1600-megawatt power plant located in Farmington, New Mexico that emits hundreds of pounds of mercury per year, agreed to install ACI and expects reductions of up to 80%.92 Moreover. power plant a under construction in Iowa is installing ACI to meet the terms of a state air pollution permit, and one in Michigan has begun to install a multipollutant control that will use sorbent injection to reduce mercury.93

Third, mercury control technology is affordable. Using EPA data, the National Wildlife Federation (NWF) estimated that installing mercury control technology to achieve 90% mercury reduction at power plants would cost the average household about 69 cents to \$2.14 per month in five coal-dependent states: Illinois, Michigan, Ohio, Pennsylvania, and North Dakota.<sup>94</sup> NWF also estimated the average monthly cost per household for all 50 states using low-end and high-end estimates by the Department of Energy and the Institute for Clean Air Companies of 0.1 cents and 0.3 cents per kilowatt hour.95 Based on this range, the average monthly household cost for each of the 50 states ranged from one cent to \$1.05 on the low end and from two cents to \$3.16 on the high end.<sup>96</sup>

Furthermore, several recent studies have shown substantial benefits from reducing power plant mercury emissions-benefits greater than both the EPA's estimated benefits of \$50 million per year and its estimated costs to utilities and electricity users of \$750 million per year by 2020.97 The Mt. Sinai School of Medicine, which assessed the economic impact of U.S. power plant mercury emissions on the developing fetal brain, found that such emissions cost \$1.3 billion per year in diminished economic productivity due to loss of IQ.98 The Harvard Center for Risk Analysis, which monetized both neurological and cardiovascular impacts of reducing power plant mercury emissions using targets in the Bush administration's "Clear Skies" initiative, estimated benefits ranging up to \$3.5 billion annually at an emissions level of 26 tons of mercury per year and \$5.2 billion annually at 15 tons per year.99 The estimates included benefits associated with IQ increases as well as cardiovascular avoided events and premature mortality.<sup>100</sup> Finally, the EPA's own water office, which assessed the benefits of reducing U.S. mercury  $\mathbf{bv}$ 30-100% and likewise emissions included both neurological and cardiovascular impacts, estimated benefits in the Southeastern U.S. ranging from \$600 million to more than \$2 billion.<sup>101</sup>

As noted above, the EPA was aware of the results of both the Harvard and water office studies prior to finalizing its mercury regulations in March. Yet the agency ignored and even suppressed the results of the studies,<sup>102</sup> which contradicted its own benefit estimates.

#### **Stronger State Controls on Power Plant Mercury Emissions**

In the absence of strong federal standards on power plant mercury emissions, states are moving forward to protect their residents from mercury pollution. As New Jersey Commissioner of Environmental Protection Bradley Campbell explained, "We did not originally plan to propose a New Jersey-only rule for power plant mercury emissions. It was only after it became apparent that EPA would be proposing a weak rule with an extended timeframe that New Jersey and other states were put in a position of having to do their own rules."<sup>103</sup>

States with stronger mercury emissions for power plants include:

**Connecticut:** Law requiring coal-fired power plants to achieve an emissions rate of 0.6 pounds of mercury per trillion BTU or an emissions rate equal to a 90% mercury reduction by  $2008.^{104}$ 

Massachusetts: Rule requiring coal-fired power plants to reduce mercury emissions 85% by 2008 and 95% by 2012.<sup>105</sup>

**New Jersey:** Rule requiring coal-fired power plants to reduce mercury emissions 90% by 2007, with the option of meeting the standard by 2012 if they also make major reductions in emissions of sulfur dioxide, nitrogen oxides, and fine particulates.<sup>106</sup> Notably, using pollution control technology "about a decade old," two coal-fired power plants in New Jersey have already reduced their mercury emissions by more than 90% compared with uncontrolled levels.<sup>107</sup>

**Wisconsin:** Rule requiring power plants to reduce mercury emissions 40% by 2010 and 75% by 2015 and establishing goal of 80% reduction by 2018.<sup>108</sup> Unfortunately, the state is now faced with weakening its mercury standards, due to a provision in the rule requiring the state to adopt a "similar standard" to a federal standard, if one is issued.<sup>109</sup>

Several states are considering stronger power plant mercury emissions standards. Among the states poised to move forward with power plant mercury emissions standards are:

**Michigan:** Stakeholders' workgroup issued its final recommendation to Governor Granholm in June 2005; workgroup agreed Michigan can achieve greater reductions than those required under the federal rule.<sup>110</sup>

**Pennsylvania:** Department of Environmental Protection will propose regulations to reduce mercury emissions from power plants in response to a citizen petition seeking 90% mercury reductions; regulations will be more stringent than the federal rule.<sup>111</sup>

Rather than let many of the nation's power plants continue to emit or even increase their mercury emissions, the Bush administration should protect public health by rewriting its mercury rules to ensure the swift, maximum reductions in power plant mercury pollution that the law requires.

# Methodology

To analyze power plant mercury emissions by state, county, zip code, facility, and company, we used 2003 data reported to EPA's Toxics Release Inventory (TRI), available at <u>www.epa.gov/triexplorer</u>. We looked at releases of mercury and mercury compounds from electric utilities (SIC 4911, 4931, and 4939). The TRI database contains information about toxic chemical releases, including mercury, as reported annually by covered facilities. While the database covers most mercury releases, some industries are not required to report to the TRI, including medical, municipal, and sewage sludge waste incinerators. In addition, facilities that manufacture, process, or release 10 or fewer pounds of mercury annually are not required to report to the TRI. Our analysis covers only mercury emissions reported in the TRI.

To analyze power plant mercury emissions by company, we downloaded detailed facility information from EPA's TRI database<sup>112</sup> and linked it to the TRI data on mercury releases through the TRIF ID We reviewed the parent number. companies listed in the detailed facility file and made sure that the companies listed as the parent were not subsidiaries of a larger company (e.g., Alabama Power is a subsidiary of Southern Company). If two or more companies co-owned a facility, we attributed the emissions to only one company, generally the company with the largest percentage stake in the facility. We then grouped the facilities with the same parent companies together to determine the total emissions by company.

			Reported Mercury Air
		<b>•</b> • •	Emissions from Power
Rank	County ARMSTRONG	State PA	Plants (pounds)
2			1,527
-	TITUS	TX	1,404
3	LIMESTONE	TX	1,386
4	INDIANA GAN HVAN	PA	1,337
5	SAN JUAN	NM	1,308
6	JEFFERSON	OH	1,281
7	COSHOCTON	OH	1,222
8	POTTAWATOMIE	KS	1,197
9	RUSK	TX	1,114
10	MERCER	ND	1,086
11	ADAMS	OH	1,066
12	HARRISON	TX	1,040
13	FORT BEND	TX	1,033
14	JEFFERSON	AL	994
15	SHELBY	AL	978
16	FRANKLIN	MO	960
17	PERSON	NC	937
18	MC LEAN	ND	927
19	POINTE COUPEE	LA	919
20	SHERBURNE	MN	908
21	PUTNAM	WV	902
22	APACHE	AZ	901
23	SPENCER	IN	873
23	ROSEBUD	MT	873
25	GALLIA	OH	848
26	BEAVER	PA	825
27	MONROE	GA	805
28	MONROE	MI	770
29	KENOSHA	WI	762
30	WILL	IL	735
31	BARTOW	GA	725
32	CLEARFIELD	PA	701
33	BALTIMORE CITY	MD	670
34	PLATTE	WY	650
35	CLERMONT	OH	648
36	JASPER	IN	648
37	MUHLENBERG	KY	647
38	WOODBURY	IA	640
39	DUVAL	FL	633
40	MOBILE	AL	625
41	MASON	WV	610
42	MONONGALIA	WV	607
43	GIBSON	IN	606
44	WALKER	AL	599
45	WAPELLO	IA	580
46	HERNANDO	FL	570
47	TAZEWELL	IL	561
48	COLUMBIA	WI	556
49	CITRUS	FL	541
50	MARSHALL	WV	530
00			550

Rank	County	State	Reported Mercury Air Emissions from Power Plants (pounds)
51	CATAWBA	NC	513
52	IEFFERSON	MO	505
53	PIKE	IN	499
<u> </u>	ROANE	TN	499
55	BEXAR	TX	490
<u> </u>	OLIVER	ND	404 470
<u> </u>	GREENE	PA	470
58	GREENE SWEETWATER	YA WY	470
59	ST CLAIR	MI	466
60	JEFFERSON	AR	460
61	WASHINGTON	OH	455
62	RANDOLPH	IL	450
63	FREESTONE	TX	443
64	HEARD	GA	438
65	CAMP	TX	438
66	CHRISTIAN	IL	431
67	JEFFERSON	KY	429
68	CHARLES	MD	414
69	LINN	KS	400
70	FAYETTE	TX	397
71	POTTAWATTAMIE	IA	390
72	CARROLL	KY	381
73	RANDOLPH	MO	375
74	OTTAWA	MI	375
75	GRIMES	TX	372
76	INDEPENDENCE	AR	370
77	CHESTERFIELD	VA	370
78	GASTON	NC	364
79	LORAIN	OH	361
80	GREENE	AL	357
81	MASSAC	IL	350
82	STOKES	NC	348
83	LAWRENCE	KY	336
84	MUSKOGEE	OK	335
85	HAMILTON	OH	334
86	GRANT	WV	330
87	JACKSON	AL	330
88	MAYES	OK	329
89	LAKE	OH	327
90	HAWKINS	TN	321
91	CONVERSE	WY	313
92	COCONINO	AZ	313
92	CHOCTAW	MS	305
93 94	HONOLULU	MS HI	303
95	MONTOUR	PA FI	296
96	HILLSBOROUGH	FL	295
97	ROBERTSON	TX	294
98	HARRISON	WV	293
99	ITASCA	MN	292
100	JASPER	IL	291

## Appendix A.2. County in Each State with Highest Power Plant Mercury Air Emissions, 2003

		Reported Mercury	Reported Mercury Air	
		Air Emissions from	Emissions from Power	0/ f T
State	Top County	Power Plants, County (pounds)	Plants, Statewide (pounds)	% from Top County
AK	DENALI	19	32	59%
AL	JEFFERSON	994	4.399	23%
AR	JEFFERSON	460	962	48%
AZ	APACHE	901	1.696	53%
CA	SAN JOAQUIN	14	18	77%
<u> </u>	MOFFAT	120	343	35%
CT	NEW LONDON	51	102	50%
DC	DIST. OF COLUMBIA	0.5	0.5	100%
DE	NEW CASTLE	212	242	87%
FL	DUVAL	633	2,982	21%
GA	MONROE	805	2,805	29%
HI	HONOLULU	302	362	83%
IA	WOODBURY	640	2,453	26%
IL	WILL	735	4,125	18%
IN	SPENCER	873	4,885	18%
KS	POTTAWATOMIE	1,197	2,126	56%
KY	MUHLENBERG	647	3,486	19%
LA	POINTE COUPEE	919	1,434	64%
MA	BRISTOL	126	205	61%
MD	BALTIMORE CITY	670	1,659	40%
ME	LINCOLN	0.0000015	0.0000015	100%
MI	MONROE	770	2,462	31%
MN	SHERBURNE	908	1,629	56%
MO	FRANKLIN	960	3,289	29%
MS	CHOCTAW	305	802	38%
MT	ROSEBUD	873	986	89%
NC	PERSON	937	3,038	31%
ND	MERCER	1,086	2,512	43%
NE	LINCOLN	224	389	58%
NH	MERRIMACK	120	136	88%
NJ	CAPE MAY	226	450	50%
NM	SAN JUAN	1,308	1,341	98%
NV	CLARK	264	272	97%
NY	CHAUTAUQUA	232	899	26%
OH	JEFFERSON	1,281	7,107	18%
OK	MUSKOGEE	335	1,382	24%
OR	MORROW	210	221	95%
PA	ARMSTRONG	1,527	6,789	22%
SC	BERKELEY	173	607	28%
SD	GRANT	200	213	94%
TN	ROANE	490	2,023	24%
TX	TITUS	1,404	9,099	15%
UT	MILLARD	223	449	50%
VA	CHESTERFIELD	370	1,379	27%
WA	LEWIS	113	113	100%
WI	KENOSHA	762	2,457	31%
WV	PUTNAM	902	3,948	23%
WY	PLATTE	650	1,800	36%

## Appendix B.1. 100 Zip Codes with Highest Power Plant Mercury Air Emissions, 2003

Rank	Zip	City	State	Reported Mercury Air Emissions from Power Plants (pounds)
	75455	MOUNT PLEASANT	TX	(pounds) 1.404
2	75846	JEWETT	ТХ	1,386
3	15774	SHELOCTA	PA	1,300
4	43811	CONESVILLE	OH	1,200
4 5	43011 66536	SAINT MARYS	KS	1,222
6	75691	TATUM	TX	1,197
7	45144	MANCHESTER	0H	1,114
8	45144 75650	HALLSVILLE	TX	1,000
0 9	75050	THOMPSONS	TX	1,040
10	35130	QUINTON	AL	994
10	35186	WILSONVILLE	AL	978
12	63055	LABADIE	MO	960
13	58576	UNDERWOOD	ND	927
14	70760	NEW ROADS	LA	919
15	55308	BECKER	MN	908
16	25213	WINFIELD	WV	902
17	59323	COLSTRIP	MT	873
17	47635	ROCKPORT	IN	873
19	45620	CHESHIRE	OH	848
20	31046	JULIETTE	GA	805
21	15077	SHIPPINGPORT	PA	783
22	53142	KENOSHA	WI	762
23	30120	CARTERSVILLE	GA	725
24	27343	SEMORA	NC	710
25	16873	SHAWVILLE	PA	701
26	58523	BEULAH	ND	700
27	48161	MONROE	MI	683
28	87421	WATERFLOW	NM	681
29	15944	NEW FLORENCE	PA	673
30	21226	BALTIMORE	MD	670
31	15748	HOMER CITY	PA	665
32	43913	BRILLIANT	OH	657
33	82201	WHEATLAND	WY	650
34	46392	WHEATFIELD	IN	648
35	87416	FRUITLAND	NM	627
36	43961	STRATTON	OH	624
37	25265	NEW HAVEN	WV	610
38	47670	PRINCETON	IN	606
39	85938	SPRINGERVILLE	AZ	605
40	36512	BUCKS	AL	603
41	42337	DRAKESBORO	KY	600
42	32226	JACKSONVILLE	FL	599
43	35580	PARRISH	AL	599
44	52501	OTTUMWA	IA	580
45	34601	BROOKSVILLE	FL	570
46	61554	PEKIN	IL	561
47	53954	PARDEEVILLE	WI	556
48	34428	CRYSTAL RIVER	FL	541
49	26041	MOUNDSVILLE	WV	530
50	28682	TERRELL	NC	513

Rank	Zip	City	State	Reported Mercury Air Emissions from Power Plants (pounds)
51	60436	JOLIET	IL	506
52	63028	FESTUS	MO	505
53	47567	PETERSBURG	IN	499
54	37748	HARRIMAN	TN	490
55	78263	SAN ANTONIO	TX	478
56	58530	CENTER	ND	470
57	15461	MASONTOWN	PA	470
58	82942	POINT OF ROCKS	WY	468
59	48054	CHINA TOWNSHIP	MI	466
60	72132	REDFIELD	AR	460
61	62217	BALDWIN	IL	450
62	75840	FAIRFIELD	TX	443
63	26541	MAIDSVILLE	WV	442
64	30170	ROOPVILLE	GA	438
65	75686	PITTSBURG	TX	438
66	62540	KINCAID	IL	430
67	52761	MUSCATINE	IA	431
68	20664	NEWBURG	MD	414
69	66040	LA CYGNE	KS	400
70	78945	LA CIGNE LA GRANGE	TX	397
70	51501	COUNCIL BLUFFS	IA	397
72	58571	STANTON	ND	390
73	41045	GHENT	KY	381
73	41045 51054	GHENT SERGEANT BLUFF	IA	380
	51054 65244	SERGEANT BLUFF CLIFTON HILL		
75 76	05244 77830	CARLOS	MO TX	375 372
			-	
77 78	72562 23836	NEWARK CHESTER	AR VA	370 370
78	25850 45715	BEVERLY	VA OH	
				368
80	44012	AVON LAKE west olive	OH	361
81	49460	WEST OLIVE	MI	359
82	36740	FORKLAND	AL	357
83	62953	JOPPA DELEWIG ODEEK	IL NC	350
84	27009	BELEWS CREEK	NC VV	348
85	40272	LOUISVILLE	KY	337
86	41230	LOUISA	KY	336
87	74434	FORT GIBSON	OK OU	335
88	45052	NORTH BEND	OH	334
89	35772	STEVENSON MOUNT STORM	AL	330
90	26739	MOUNT STORM	WV	330
91	74337	CHOUTEAU	OK OU	329
92	45153	MOSCOW	OH	327
93	45157	NEW RICHMOND	OH	322
94	37857	ROGERSVILLE	TN	320
95	82637	GLENROCK	WY	313
96	86040	PAGE	AZ	312
97	39735	ACKERMAN	MS	305
98	44095	EASTLAKE	OH	299
99	85936	SAINT JOHNS	AZ	296
99	17821	DANVILLE	PA	296

Made in the U.S.A. 24

### Appendix B.2. Zip Code in Each State with Highest Power Plant Mercury Air Emissions, 2003

	Top Zip		Reported Mercury Air Emissions from Power Plants, Zip	Reported Mercury Air Emissions from Power Plants,	% from Top Zip
State	Code	City	Code (pounds)	Statewide (pounds)	Code
AK	99743	HEALY	19	32	59%
AL	35130	QUINTON	994	4,399	23%
AR	72132	REDFIELD	460	962	48%
AZ	85938	SPRINGERVILLE	605	1,696	36%
CA	95203	STOCKTON	14	18	77%
00 07	81626	CRAIG	120	343	35%
CT DC	06382	UNCASVILLE WASHINGTON DC	51	102	50%
DC	20019	WASHINGTON, DC	0.5	0.5	100%
DE	19809	WILMINGTON	212	242	87%
FL	32226	JACKSONVILLE	599	2,982	20%
GA	31046	JULIETTE	805	2,805	29%
HI	96707	KAPOLEI	240	362	66%
IA	52501	OTTUMWA	580	2,453	24%
IL IV	61554	PEKIN	561	4,125	14%
IN	47635	ROCKPORT	873	4,885	18%
KS	66536	SAINT MARYS	1,197	2,126	56%
KY	42337	DRAKESBORO	600	3,486	17%
LA	70760	NEW ROADS	919	1,434	64%
MA	02726	SOMERSET	120	205	59%
MD	21226	BALTIMORE	670	1,659	40%
ME	04578	WISCASSET	0.0000015	0.0000015	100%
MI	48161	MONROE	683	2,462	28%
MN	55308	BECKER	908	1,629	56%
MO	63055	LABADIE	960	3,289	29%
MS	39735	ACKERMAN	305	802	38%
MT	59323	COLSTRIP	873	986	89%
NC	27343	SEMORA	710	3,038	23%
ND	58576	UNDERWOOD	927	2,512	37%
NE	69165	SUTHERLAND	224	389	58%
NH	03304	BOW	120	136	88%
NJ	08223	BEESLEYS POINT	226	450	50%
NM	87421	WATERFLOW	681	1,341	51%
NV	89029	LAUGHLIN	201	272	74%
NY	14048	DUNKIRK	127	899	14%
OH	43811	CONESVILLE	1,222	7,107	17%
0K	74434	FORT GIBSON	335	1,382	24%
OR	97818	BOARDMAN	210	221	95%
PA	15774	SHELOCTA	1,280	6,789	19%
SC	29445	GOOSE CREEK	145	607	24%
SD	57216	BIG STONE CITY	200	213	94%
TN	37748	HARRIMAN	490	2,023	24%
ТХ	75455	MOUNT PLEASANT	1,404	9,099	15%
UT	84624	DELTA	223	449	50%
VA	23836	CHESTER	370	1,379	27%
WA	98531	CENTRALIA	113	113	100%
WI	53142	KENOSHA	762	2,457	31%
WV	25213	WINFIELD	902	3,948	23%
WY	82201	WHEATLAND	650	1,800	36%

# Appendix C.1. All Power Plants Reporting Mercury Air Emissions, 2003

Rank	State	Facility	Parent Company*	County	Zip	Reported Mercury Air Emissions from Power Plants (pounds)
		GOLDEN VALLEY ELECTRIC ASSOCIATES INC HEALY				
381	AK	POWER PLANT	GOLDEN VALLEY ELECTRIC ASSOCIATES	DENALI	99743	19
406	AK	AURORA ENERGY LLC	USIBELLI COAL MINE	FAIRBANKS NORTH STAR	99701	13
9	AL	ALABAMA POWER CO MILLER STEAM PLANT	SOUTHERN CO	JEFFERSON	35130	994
10	AL	ALABAMA POWER CO GASTON STEAM PLANT	SOUTHERN CO	SHELBY	35186	978
36	AL	SOUTHERN CO BARRY STEAM PLANT	SOUTHERN CO	MOBILE	36512	603
39	AL	ALABAMA POWER CO GORGAS STEAM PLANT	SOUTHERN CO	WALKER	35580	599
77	AL	ALABAMA POWER CO GREENE CTY STEAM PLANT	SOUTHERN CO	GREENE	36740	357
84	AL	U.S. TVA WIDOWS CREEK FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	JACKSON	35772	330
133	AL	U.S. TVA COLBERT FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	COLBERT	35674	230
166	AL	CHARLES R. LOWMAN POWER PLANT	ALABAMA ELECTRIC COOPERATIVE	WASHINGTON	36548	190
239	AL	ALABAMA POWER CO GADSDEN STEAM PLANT	SOUTHERN CO	ETOWAH	35903	95
365	AL	MOBILE ENERGY SERVICES LLC	DTE ENERGY CO	MOBILE	36610	22
55	AR	WHITE BLUFF GENERATING PLANT	ENTERGY CORP	JEFFERSON	72132	460
00	int	ENTERGY SERVICES INC INDEPENDENCE STEAM		JHTIMOON	12102	100
72	AR	ELECTRIC STATION	ENTERGY CORP	INDEPENDENCE	72562	370
200	AR	AMERICAN ELECTRIC POWER FLINT CREEK POWER PLANT	AMERICAN ELECTRIC POWER	BENTON	72734	132
35	AZ	TUCSON ELECTRIC POWER CO SPRINGERVILLE GENERATING STATION	UNISOURCE ENERGY	APACHE	85938	605
<u> </u>	AZ	NAVAJO GENERATING STATION	SALT RIVER PROJECT	COCONINO	86040	312
<u>94</u> 98	AZ	CORONADO GENERATING STATION	-	APACHE	85936	296
			SALT RIVER PROJECT			
113	AZ	CHOLLA POWER PLANT	PINNACLE WEST CAPITAL CORP	NAVAJO	86032	269
163	AZ	ARIZONA ELECTRIC POWER COOPERATIVE INC	ARIZONA ELECTRIC POWER COOPERATIVE	COCHISE	85606	192
372	AZ	IRVINGTON GENERATING STATION	UNISOURCE ENERGY	PIMA SAN IOAOUNI	85714	21
400	CA	POSDEF POWER CO LP	FPL GROUP	SAN JOAQUIN	95203	14
460	CA	ACE COGENERATION FACILITY	CONSTELLATION ENERGY GROUP	SAN BERNARDINO	93562	2
472	CA	RIO BRAVO POSO	CONSTELLATION ENERGY GROUP	KERN	93308	0.97
473	CA	RIO BRAVO JASMIN	CONSTELLATION ENERGY GROUP	KERN	93308	0.90
488	CA	STOCKTON COGEN CO	AIR PRODUCTS & CHEMICALS INC	SAN JOAQUIN	95206	0.000032
010	00	TRI-STATE GENERATION & TRANSMISSION CRAIG		MODELTE	01/0/	100
212	<u> </u>	STATION	TRI-STATE GENERATION & TRANSMISSION	MOFFAT	81626	120
228	00	RAWHIDE ENERGY STATION	PLATTE RIVER POWER AUTHORITY	LARIMER	80549	105
344	CO	RAY D. NIXON POWER PLANT	COLORADO SPRINGS UTILITIES	EL PASO	80817	31
382	60	COLORADO SPRINGS UTILITITIES MARTIN DRAKE POWER PLANT	COLORADO SPRINGS UTILITIES	EL PASO	80903	18
390	60	PUBLIC SERVICE CO OF COLORADO PAWNEE STATION	XCEL ENERGY	MORGAN	80723	16
390	60	PUBLIC SERVICE CO OF COLORADO COMANCHE STATION	XCEL ENERGY	PUEBLO	81006	16
413	60	TRI-STATE GENERATION & TRANSMISSION - NUCLA STATION	TRI-STATE GENERATION & TRANSMISSION	MONTROSE	81424	12
426	60	PUBLIC SERVICE CO OF COLORADO CHEROKEE STN	XCEL ENERGY	ADAMS	80216	9
445	C0	PUBLIC SERVICE CO OF COLORADO HAYDEN STATION	XCEL ENERGY	ROUTT	81639	6
453	C0	PUBLIC SERVICE CO OF COLORADO ARAPAHOE STN	XCEL ENERGY	DENVER	80223	4
458	<u> </u>	TRIGEN-NATIONS ENERGY CO LLLP	TRIGEN ENERGY CORP	JEFFERSON	80401	2
461	<u> </u>	PUBLIC SERVICE CO OF COLORADO VALMONT STN	XCEL ENERGY	BOULDER	80302	2
461	<u> </u>	AQUILA INC W.N. CLARK GENERATING STATION	AQUILA INC	FREMONT	81212	2

Rank	State	Facility	Parent Company*	County	Zip	Reported Mercury Air Emissions from Power Plants (pounds)
467	<u>C0</u>	PUBLIC SERVICE CO OF COLORADO CAMEO STATION	XCEL ENERGY	MESA	81526	1
301	CT	AES THAMES LLC	AES CORP	NEW LONDON	06382	51
	-	PSEG POWER CONNECTICUT LLC BRIDGEPORT				
302	CT	HARBOR STATION	PSEG	FAIRFIELD	06604	51
479	DC	BENNING GENERATING STATION	PEPCO HOLDINGS INC	DIST OF COLUMBIA	20019	0.50
147	DE	EDGE MOOR/HAY ROAD POWER PLANTS	PEPCO HOLDINGS INC	NEW CASTLE	19809	212
366	DE	NRG ENERGY INC INDIAN RIVER GENERATING STN	NRG ENERGY INC	SUSSEX	19966	22
429	DE	NRG ENERGY CENTER DOVER	NRG ENERGY INC	KENT	19904	9
		ST. JOHNS RIVER POWER PARK/NORTHSIDE				
38	FL	GENERATING STATION	JEA	DUVAL	32226	599
41	FL	FLORIDA CRUSHED STONE CO. CPL	RINKER MATERIALS CORP	HERNANDO	34601	570
44	FL	PROGRESS ENERGY CRYSTAL RIVER ENERGY COMPLEX	PROGRESS ENERGY	CITRUS	34428	541
152	FL	GULF POWER CO PLANT CRIST	SOUTHERN CO	ESCAMBIA	32514	207
165	FL	STANTON ENERGY COMPLEX	ORLANDO UTILITIES CO	ORANGE	32831	191
183	FL	BIG BEND STATION	TECO ENERGY INC	HILLSBOROUGH	33572	155
190	FL	F.J. GANNON STATION	TECO ENERGY INC	HILLSBOROUGH	33619	140
232	FL	C D MCINTOSH JR POWER PLANT	LAKELAND ELECTRIC	POLK	33805	101
258	FL	SEMINOLE GENERATING STATION	SEMINOLE ELECTRIC COOPERATIVE INC	PUTNAM	32177	77
268	FL	TAMPA ELECTRIC CO POLK POWER STATION	TECO ENERGY INC	POLK	33860	70
269	FL	GAINESVILLE REGIONAL UTILITIES DEERHAVEN GENERATING STATION	CITY OF GAINESVILLE	ALACHUA	32653	69
271	FL	GULF POWER CO PLANT LANSING SMITH	SOUTHERN CO	BAY	32409	68
327	FL	INDIANTOWN COGENERATION LP	COGENTRIX	MARTIN	34956	38
335	FL	CEDAR BAY GENERATING CO	NATIONAL ENERGY & GAS TRANSMISSION	DUVAL	32218	34
370	FL	PROGRESS ENERGY FLORIDA ANCLOTE POWER PLT	PROGRESS ENERGY	PASCO	34691	21
375	FL	FLORIDA POWER & LIGHT CO MARTIN POWER PLANT	FPL GROUP	MARTIN	34956	20
375	FL	FLANT FLORIDA POWER & LIGHT FORT MYERS POWER PLT	FPL GROUP	LEE	33905	20
393	FL	FLORIDA FOWER & LIGHT FORT MIERS FOWER FLIT FLORIDA POWER & LIGHT SANFORD POWER PLANT	FPL GROUP	VOLUSIA	32713	15
393 394		GULF POWER CO PLANT SCHOLZ	SOUTHERN CO	JACKSON	32460	15
	FL					13
408	FL	FPL FORT LAUDERDALE POWER PLANT PROGRESS ENERGY FLORIDA INC PL BARTOW	FPL GROUP	BROWARD	33314	
425	FL	PLANT	PROGRESS ENERGY	PINELLAS	33702	9
427	FL	INDIAN RIVER POWER PLANT	RELIANT ENERGY INC	BREVARD	32780	9
484	FL	GULF POWER CO - PLANT STANTON UNIT A	SOUTHERN CO	ORANGE	32831	0.10
10		GEORGIA POWER SCHERER STEAM ELECTRIC		MONDOL	91046	007
19	GA	GENERATING PLANT	SOUTHERN CO SOUTHERN CO	MONROE	31046	805
22	GA	BOWEN STEAM ELECTRIC GENERATING PLANT GEORGIA POWER WANSLEY STEAM ELECTRIC		BARTOW	30120	725
60	GA	GENERATING PLANT	SOUTHERN CO	HEARD	30170	438
108	GA	GEORGIA POWER BRANCH STEAM ELECTRIC GENERATING PLANT	SOUTHERN CO	PUTNAM	31061	280
168	GA	GEORGIA POWER YATES STEAM ELECTRIC GENERATING PLANT	SOUTHERN CO	COWETA	30263	186
		GEORGIA POWER HAMMOND STEAM ELECTRIC				
184	GA	GENERATING PLANT MCDONOUGH/ATKINSON STEAM ELECTRIC	SOUTHERN CO	FLOYD	30165	154
220	GA	GENERATING PLANT	SOUTHERN CO	COBB	30080	112
317	GA	SAVANNAH ELECTRIC PLANT KRAFT	SOUTHERN CO	CHATHAM	31407	42
333	GA GA	SAVANNAH ELECTRIC PLANT KRAFT SAVANNAH ELECTRIC PLANT MCINTOSH	SOUTHERN CO	EFFINGHAM	31407	35
333 346	GA GA	SAVANNAH ELEUTRIC PLANT MUNTUSH MITCHELL STEAM ELECTRIC GENERATING PLANT	SOUTHERN CO	DOUGHERTY	31705	30 30
340	6A	mituiell Steam electric generating plant	SUUTIERIN UU	DUUGHERTT	91709	90

Rank	State	Facility	Parent Company*	County	Zip	Reported Mercury Air Emissions from Power Plants (pounds)
181	HI	HAWAIIAN ELECTRIC KAHE GENERATING STN	HAWAIIAN ELECTRIC INDUSTRIES INC	HONOLULU	96707	160
270	Ш	AES HAWAII INC	AES CORP	HONOLULU	96707	68
280	Ш	HAWAIIAN ELECTRIC WAIAU GENERATING STATION	HAWAIIAN ELECTRIC INDUSTRIES INC	HONOLULU	96782	62
338	Ш	MAALAEA GENERATING STATION	HAWAIIAN ELECTRIC INDUSTRIES INC	MAUI	96753	33
397	Ш	MAUI ELECTRIC CO LTD KAHULUI GENERATING STN	HAWAIIAN ELECTRIC INDUSTRIES INC	MAUI	96732	14
403	Ш	HAWAII ELECTRIC LIGHT HILL GENERATING STN	HAWAIIAN ELECTRIC INDUSTRIES INC	HAWAII	96720	13
410	H	KALAELOA COGENERATION PLANT	PSEG	HONOLULU	96707	10
40	IA	OTTUMWA GENERATING STATION	ALLIANT ENERGY	WAPELLO	52501	580
		MIDAMERICAN ENERGY CO COUNCIL BLUFFS ENERGY				
67	IA	CENTER	MIDAMERICAN ENERGY HOLDING CO	POTTAWATTAMIE	51501	390
69	IA	MIDAMERICAN ENERGY CO GEORGE NEAL NORTH	MIDAMERICAN ENERGY HOLDING CO	WOODBURY	51054	380
		MIDAMERICAN ENERGY CO LOUISA GENERATING				
107	IA	STN	MIDAMERICAN ENERGY HOLDING CO	LOUISA	52761	280
114	IA	MIDAMERICAN ENERGY GEORGE NEAL SOUTH	MIDAMERICAN ENERGY HOLDING CO	WOODBURY	51052	260
201	IA	MUSCATINE POWER & WATER GENERATION	MUSCATINE POWER & WATER	MUSCATINE	52761	130
254	IA	LANSING POWER STATION	ALLIANT ENERGY	ALLAMAKEE	52151	80
287	IA	PRAIRIE CREEK GENERATING STATION	ALLIANT ENERGY	LINN	52404	60
287	IA	IP&L - BURLINGTON GENERATING STATION	ALLIANT ENERGY	DES MOINES	52601	60
287	IA	M. L. KAPP GENERATING STATION	ALLIANT ENERGY	CLINTON	52732	60
321	IA	MIDAMERICAN ENERGY RIVERSIDE GENERATING STATION	MIDAMERICAN ENERGY HOLDING CO	SCOTT	52722	39
323	IA	INTERSTATE POWER & LIGHT CO SUTHERLAND STN	ALLIANT ENERGY	MARSHALL	50158	39
342	IA	DUBUQUE POWER PLANT	ALLIANT ENERGY	DUBUQUE	52001	31
371	IA	CITY OF AMES	CITY OF AMES	STORY	50010	21
378	IA	ALLIANT ENERGY INTERSTATE POWER LIGHT 6TH ST. GENERATING STA	ALLIANT ENERGY	LINN	52402	20
395	IA	CENTRAL IOWA POWER COOPERATIVE - FAIR STN	CENTRAL IOWA POWER COOPERATIVE	MUSCATINE	52761	14
423	IA	CEDAR FALLS UTILITIES	CEDAR FALLS UTILITIES	BLACK HAWK	50613	9
42	IL II	EDISON INTL. POWERTON GENERATING STATION	EDISON INTERNATIONAL	TAZEWELL	61554	561
48	IL	JOLIET GENERATING STATION (#9 & #29)	EDISON INTERNATIONAL	WILL	60436	506
10		DYNEGY MIDWEST GENERATION INC BALDWIN			00100	000
56	IL	ENERGY COMPLEX	DYNEGY INC	RANDOLPH	62217	450
62	IL	DOMINION KINCAID GENERATION LLC	DOMINION	CHRISTIAN	62540	431
78	IL	ELECTRIC ENERGY INC	AMEREN CORP	MASSAC	62953	350
104	IL	AMEREN ENERGY GEN. NEWTON POWER STATION	AMEREN CORP	JASPER	62448	291
118	IL	WAUKEGAN GENERATING STATION	EDISON INTERNATIONAL	LAKE	60087	254
136	IL	WILL COUNTY GENERATING STATION	EDISON INTERNATIONAL	WILL	60441	228
176	IL	CRAWFORD GENERATING STATION	EDISON INTERNATIONAL	СООК	60623	170
204	IL	AMEREN ENERGY GEN. COFFEEN POWER STATION	AMEREN CORP	MONTGOMERY	62017	127
231	IL	DYNEGY WOOD RIVER POWER STATION	DYNEGY INC	MADISON	62002	103
236	IL	FISK GENERATING STATION	EDISON INTERNATIONAL	СООК	60608	99
237	IL	AMEREN ENERGY RESOURCES GENERATING CO	AMEREN CORP	PEORIA	61607	98
253	IL	DYNEGY HAVANA POWER STATION	DYNEGY INC	MASON	62644	80
277	IL	DYNEGY HENNEPIN POWER STATION	DYNEGY INC	PUTNAM	61327	64
290	IL	AMEREN ENERGY GEN. HUTSONVILLE POWER STN	AMEREN CORP	CRAWFORD	62433	58
291	IL	SOUTHERN ILLINOIS POWER COOPERATIVE	SOUTHERN ILLINOIS POWER COOPERATIVE	WILLIAMSON	62959	57
293	IL	AMEREN ENERGY RESOURCES GENERATING CO	AMEREN CORP	FULTON	61520	57
304	IL	DYNEGY VERMILION POWER STATION	DYNEGY INC	VERMILION	61858	49
916	п	AMEREN ENERGY GEN. MEREDOSIA POWER STATION	AMEDEN CADD	MODEAN	69677	49
316 356	IL IL		AMEREN CORP CITY OF SPRINGFIELD	MORGAN SANGAMON	62655 62707	42 26
990	IL	CITY WATER LIGHT & POWER CITY OF SPRINGFIELD	UTT OF STRINGFIELD	SANGAMUN	02707	20

Denk	State	Es silitar	Parent Company*	<b>C</b> ounty	7:-	Reported Mercury Air Emissions from Power Plants
Rank 383	State II.	Facility TUSCOLA GENERATING FACILITY	CINERGY CORP	County DOUGLAS	Zip 61953	(pounds) 18
447	IL IL	COLLINS GENERATING STATION	EDISON INTERNATIONAL	GRUNDY	60450	6
111	IL.	SOYLAND POWER COOPERATIVE INC PEARL		GROUDT	00450	0
486	IL	STATION	SOYLAND POWER COOPERATIVE INC	PIKE	62361	0.07
16	IN	AMERICAN ELECTIC POWER ROCKPORT PLANT	AMERICAN ELECTRIC POWER	SPENCER	47635	873
31	IN	R.M. SCHAHFER GENERATING STATION	NISOURCE	JASPER	46392	648
34	IN	CINERGY GIBSON GENERATING STATION	CINERGY CORP	GIBSON	47670	606
63	IN	IPL PETERSBURG	AES CORP	PIKE	47567	421
110	IN	AMERICAN ELECTRIC POWER TANNERS CREEK PLT	AMERICAN ELECTRIC POWER	DEARBORN	47025	272
114	IN	CLIFTY CREEK STATION	OHIO VALLEY ELECTRIC CORP	JEFFERSON	47250	260
129	IN	CINERGY CAYUGA GENERATING STATION	CINERGY CORP	VERMILLION	47928	234
149	IN	STATE LINE GENERATING LLC	DOMINION	LAKE	46320	210
151	IN	MEROM GENERATING STATION	HOOSIER ENERGY REC INC	SULLIVAN	47882	207
162	IN	IPL HARDING STREET STATION	AES CORP	MARION	46217	193
169	IN	CINERGY WABASH RIVER GENERATING STATION	CINERGY CORP	VIGO	47885	183
177	IN	MICHIGAN CITY GENERATING STATION	NISOURCE	LA PORTE	46360	167
209	IN	SIGECO A. B. BROWN GENERATING STATION	VECTREN CORP	POSEY	47620	121
215	IN	CINERGY GALLAGHER GENERATING STATION	CINERGY CORP	FLOYD	47150	116
230	IN	SIGECO F B CULLEY GENERATING STATION	VECTREN CORP	WARRICK	47630	104
250 257	IN	FRANK E RATTS GENERATING STATION	HOOSIER ENERGY REC INC	PIKE	47567	78
264	IN	IPL EAGLE VALLEY	AES CORP	MORGAN	46151	73
204	IN	BAILLY GENERATING STATION	NISOURCE	PORTER	46304	62
341	IN	WHITEWATER VALLEY GENERATING STATION	RICHMOND POWER & LIGHT	WAYNE	40304	31
358	IN	CINERGY EDWARDSPORT GENERATING STATION	CINERGY CORP	KNOX	47528	26
	KS	JEFFREY ENERGY CENTER	WESTAR ENERGY INC	POTTAWATOMIE	47320 66536	1,197
5		LACYGNE GENERATING STATION	GREAT PLAINS ENERGY	LINN	00550 66040	400
65 119	KS KS	HOLCOMB UNIT 1	SUNFLOWER ELECTRIC POWER CORP.	FINNEY	67851	251
	KS	LAWRENCE ENERGY CENTER	WESTAR ENERGY INC	DOUGLAS	66044	<u> </u>
161 273	KS	TECUMSEH ENERGY CENTER	WESTAR ENERGY INC	SHAWNEE	66542	67
				CHEROKEE		13
403	KS	RIVERTON GENERATING STATION QUINDARO POWER STATION	EMPIRE DISTRICT ELECTRIC CO. KANSAS CITY BOARD OF PUBLIC UTILITIES		66770	0.90
473 482	KS KS	VUNDARD POWER STATION NEARMAN CREEK POWER STATION	KANSAS CITY BOARD OF PUBLIC UTILITIES	WYANDOTTE WYANDOTTE	66104 66104	0.90
37	KY	U.S. TVA PARADISE FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	MUHLENBERG	42337	600
68	KY	KENTUCKY UTILITIES CO GHENT STATION	LG & E ENERGY CORP	CARROLL	41045	381
80	KY	LOUISVILLE GAS & ELECTRIC CO MILL CREEK STN	LG & E ENERGY CORP	JEFFERSON	40272	337
81	KY	AMERICAN ELECTRIC POWER BIG SANDY PLANT	AMERICAN ELECTRIC POWER	LAWRENCE	41230	336
134	KY	SPURLOCK POWER STATION	EAST KENTUCKY POWER COOPERATIVE	MASON	41056	230
153	KY	LGE ENERGY - REID/GREEN/HMP&L STATION II	LG & E ENERGY CORP	HENDERSON	42452	203
157	KY	KENTUCKY UTILITIES CO E. W. BROWN STATION	LG & E ENERGY CORP	MERCER	40330	200
158	KY	LOUISVILLE GAS & ELECTRIC CO TRIMBLE CTY STN	LG & E ENERGY CORP	TRIMBLE	40006	199
167	KY	CINERGY EAST BEND GENERATING STATION	CINERGY CORP	BOONE	41091	188
171	KY	U.S. TVA SHAWNEE FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	MC CRACKEN	42086	180
221	KY	COOPER POWER STATION	EAST KENTUCKY POWER COOPERATIVE	PULASKI	42519	110
225	KY	LGE ENERGY - WILSON STATION	LG & E ENERGY CORP	OHIO	42328	108
226	KY	COLEMAN	LG & E ENERGY CORP	HANCOCK	42348	107
240	KY	DALE POWER STATION	EAST KENTUCKY POWER COOPERATIVE	CLARK	40391	93
242	KY	LOUISVILLE GAS & ELECTRIC CO CANE RUN STATION	LG & E ENERGY CORP	JEFFERSON	40216	92
272	KY	OWENSBORO MUNICIPAL UTIL. ELMER SMITH STN	OWENSBORO MUNICIPAL UTILITIES	DAVIESS	42303	68
308	KY	KENTUCKY UTILITIES CO GREEN RIVER STATION	LG & E ENERGY CORP	MUHLENBERG	42330	46
433	KY	KENTUCKY UTILITIES CO TYRONE STATION	LG & E ENERGY CORP	WOODFORD	40383	8
13	LA	BIG CAJUN 2	NRG ENERGY INC	POINTE COUPEE	70760	919

					_	Reported Mercury Air Emissions from Power Plants
Rank 134	State LA	Facility DOLET HILLS POWER STATION	Parent Company* CLECO CORPORATION	County DE SOTO	Zip 71052	(pounds) 230
134	LA	RODEMACHER POWER STATION	CLECO CORPORATION	BAPIDES	71052	
100	LA	ENTERGY SERVICES INC ROY S NELSON PLANT	ENTERGY CORP	CALCASIEU	70669	140
214	MA	USGEN NEW ENGLAND INC	NATIONAL ENERGY & GAS TRANSMISSION	BRISTOL	02726	137
214	MA	SALEM HARBOR STATION/USGEN NEW ENGLAND	NATIONAL ENERGY & GAS TRANSMISSION	DRISTUL	02720	117
340	MA	SALEM HARDON STATION/ OSOEN NEW ENGLAND INC	PG&E CORP	ESSEX	01970	32
368	MA	MIRANT CANAL LLC	MIRANT CORP	BARNSTABLE	02563	22
380	MA	EXELON MYSTIC STATION	EXELON CORP	MIDDLESEX	02129	19
443	MA	MT TOM STATION	HOLYOKE WATER POWER CO	HAMPDEN	01040	6
110		TAUNTON MUNICIPAL LIGHTING PLANT CLEARY			01040	0
448	MA	FLOOD STATION	TAUNTON MUNICIPAL LIGHTING PLANT	BRISTOL	02780	6
454	MA	SOMERSET POWER LLC	NRG ENERGY INC	BRISTOL	02726	3
27	MD	BRANDON SHORES & WAGNER COMPLEX	CONSTELLATION ENERGY GROUP	BALTIMORE CITY	21226	670
64	MD	MIRANT MORGANTOWN GENERATING STATION	MIBANT CORP	CHARLES	20664	414
122	MD	MIRANT CHALK POINT GENERATING STATION	MIRANT CORP	PRINCE GEORGES	20608	245
160	MD	DICKERSON GENERATING STATION	MIRANT CORP	MONTGOMERY	20842	197
235	MD	CP CRANE GENERATING STATION	CONSTELLATION ENERGY GROUP	BALTIMORE	21220	99
336	MD	ALLEGHENY ENERGY R. PAUL SMITH POWER STN	ALLEGHENY ENERGY INC	WASHINGTON	21795	34
489	ME	MASON STEAM STATION	FPL GROUP	LINCOLN	04578	0.0000015
25	MI	DETROIT EDISON MONROE POWER PLANT	DTE ENERGY CO	MONROE	48161	683
76	MI	J H CAMPBELL GENERATING PLANT	CMS ENERGY	OTTAWA	49460	359
124	MI	DETROIT EDISON CO SAINT CLAIR POWER PLANT	DTE ENERGY CO	ST CLAIR	48054	242
121		CONSUMER ENERGY DE KARN JC WEADOCK		51 diam	10001	212
131	MI	GENERATING PLANT	CMS ENERGY	BAY	48732	232
139	MI	DETROIT EDISON CO BELLE RIVER POWER PLANT	DTE ENERGY CO	ST CLAIR	48054	224
107		DETROIT EDISON GO DELLE RIVER FOWER		or on the	10001	221
185	MI	PLANT	DTE ENERGY CO	WAYNE	48183	150
221	MI	DETROIT EDISON RIVER ROUGE POWER PLANT	DTE ENERGY CO	WAYNE	48218	110
229	MI	LANSING BOARD OF WATER & LIGHT ECKERT	LANSING BOARD OF WATER & LIGHT	INGHAM	48901	105
233	MI	PRESQUE ISLE POWER PLANT	WISCONSIN ENERGY CORP	MARQUETTE	49855	101
244	MI	BC COBB GENERATING PLANT	CMS ENERGY	MUSKEGON	49445	91
247	MI	JR WHITING GENERATING PLANT	CMS ENERGY	MONROE	48133	87
383	MI	MARQUETTE BOARD OF LIGHT & POWER	MARQUETTE BOARD OF LIGHT & POWER	MARQUETTE	49855	18
402	MI	MICHIGAN SOUTH CENTRAL POWER AGENCY	MICHIGAN SOUTH CENTRAL POWER AGENCY	HILLSDALE	49252	13
409	MI	LANSING BOARD OF WATER & LIGHT ERICKSON	LANSING BOARD OF WATER & LIGHT	INGHAM	48917	12
		WYANDOTTE DEPARTMENT OF MUNICIPAL	WYANDOTTE DEPARTMENT OF MUNICIPAL			
434	MI	SERVICES POWER PLANT	SERVICES	WAYNE	48192	8
436	MI	HOLLAND BPW JAMES DE YOUNG GENERATION STN	HOLLAND BOARD OF PUBLIC WORKS	OTTAWA	49423	8
437	MI	GRAND HAVEN BOARD OF LIGHT & POWER	GRAND HAVEN BOARD OF LIGHT & POWER	OTTAWA	49417	8
441	MI	DETROIT EDISON CO HARBOR BEACH POWER PLANT	DTE ENERGY CO	HURON	48441	7
448	MI	T.E.S. FILER CITY STATION	TONDU CORPORATION	MANISTEE	49634	6
14	MN	NORTHERN STATES POWER CO.	XCEL ENERGY	SHERBURNE	55308	908
103	MN	BOSWELL ENERGY CENTER	ALLETE INC	ITASCA	55721	292
238	MN	EXCEL ENERGY RIVERSIDE GENERATING PLANT	XCEL ENERGY	HENNEPIN	55418	96
261	MN	EXCEL ENERGY A. S. KING GENERATING PLANT	XCEL ENERGY	WASHINGTON	55003	75
265	MN	EXCEL ENERGY HIGH BRIDGE GENERATING PLANT	XCEL ENERGY	RAMSEY	55102	73
280	MN	TACONITE HARBOR ENERGY CENTER	ALLETE INC	COOK	55613	62
303	MN	EXCEL ENERGY BLACK DOG GENERATING PLANT	XCEL ENERGY	DAKOTA	55337	50
348	MN	OTTER TAIL POWER CO HOOT LAKE PLANT	OTTER TAIL POWER CO	OTTER TAIL	56537	29
379	MN	LASKIN ENERGY CENTER	ALLETE INC	ST LOUIS	55750	19
	MN	ROCHESTER PUBLIC UTILITIES SILVER LAKE PLANT	CITY OF ROCHESTER, MN	OLMSTED	55906	10

Rank	State	Facility	Parent Company*	County	Zip	Reported Mercury Air Emissions from Power Plants (pounds)
428	MN	AUSTIN UTILITIES NORTHEAST POWER STATION	AUSTIN UTILITIES	MOWER	55912	9
439	MN	HIBBING PUBLIC UTILITIES COMMISSION	HIBBING PUBLIC UTILITIES COMMISSION	ST LOUIS	55746	7
11	MO	AMERENUE LABADIE POWER PLANT	AMEREN CORP	FRANKLIN	63055	960
49	MO	AMERENUE RUSH ISLAND POWER PLANT	AMEREN CORP	JEFFERSON	63028	505
70	MO	AECI THOMAS HILL ENERGY CENTER POWER DIV	ASSOCIATED ELECTRIC COOPERATIVE INC	RANDOLPH	65244	375
126	MO	AMERENUE SIOUX POWER PLANT	AMEREN CORP	ST CHARLES	63386	238
142	MO	AECI NEW MADRID POWER PLANT	ASSOCIATED ELECTRIC COOPERATIVE INC	NEW MADRID	63866	220
144	MO	AMERENUE MERAMEC POWER PLANT	AMEREN CORP	SAINT LOUIS CITY	63129	219
164	MO	IATAN GENERATING STATION	GREAT PLAINS ENERGY	PLATTE	64098	192
206	MO	MONTROSE GENERATING STATION	GREAT PLAINS ENERGY	HENRY	64735	125
207	MO	SIKESTON POWER STATION	CITY OF SIKESTON	SCOTT	63801	124
249	MO	AQUILA INC SIBLEY GENERATING STATION	AQUILA INC	JACKSON	64088	84
260	MO	SOUTHWEST POWER STATION	CITY UTILITIES OF SPRINGFIELD MISSOURI	GREENE	65619	75
262	MO	JAMES RIVER POWER STATION	CITY UTILITIES OF SPRINGFIELD MISSOURI	GREENE	65804	74
338	MO	ASBURY GENERATING STATION	EMPIRE DISTRICT ELECTRIC CO.	JASPER	64832	33
383	MO	AQUILA INC LAKE ROAD	AQUILA INC	BUCHANAN	64504	18
389	MO	HAWTHORN GENERATING FACILITY	GREAT PLAINS ENERGY	JACKSON	64120	16
396	MO	CITY OF INDEPENDENCE	CITY OF INDEPENDENCE	JACKSON	64051	10
403	MO	CHAMOIS POWER PLANT	CENTRAL ELECTRIC POWER COOPERATIVE	OSAGE	65024	13
457	MO	COLUMBIA MUNICIPAL POWER PLANT	CITY OF COLUMBIA. MO	BOONE	65205	3
95	MS	TRACTEBEL POWER INC RED HILL POWER PLANT	SUEZ ENERGY INTERNATIONAL	CHOCTAW	39735	305
75	шэ	IRACTEDEL I OWER INCRED HILL I OWER I LANT	SOUTH MISSISSIPPI ELECTRIC POWER	GIUCIAW	37733	909
145	MS	R. D. MORROW SR. GENERATING PLANT	ASSOC.	LAMAR	39475	218
195	MS	MISSISSIPPI POWER CO PLANT WATSON	SOUTHERN CO	HARRISON	39502	136
196	MS	MISSISSIPPI POWER CO PLANT WATSON	SOUTHERN CO	JACKSON	39552	135
431	MS	ENTERGY GERALD ANDRUS PLANT	ENTERGY CORP	WASHINGTON	38702	8
18	MT	COLSTRIP STEAM ELECTRIC STATION	PPL CORPORATION	ROSEBUD	59323	850
274	MT	PPL J.E. CORETTE STEAM ELECTRIC STATION	PPL CORPORATION	YELLOWSTONE	59107	66
307	MT	LEWIS & CLARK STATION	MDU RESOURCES GROUP INC	RICHLAND	59270	47
362	MT	COLSTRIP ENERGY LP ROSEBUD POWER PLANT	PPL CORPORATION	ROSEBUD	59323	23
302	mı	PROGRESS ENERGY CAROLINAS INC ROXBORO		HOSEBOD	37323	2.9
23	NC	STEAM ELECTRIC PLANT	PROGRESS ENERGY	PERSON	27343	710
47	NC	MARSHALL STEAM STATION	DUKE ENERGY CORP	CATAWBA	28682	513
79	NC	DUKE ENERGY BELEWS CREEK STEAM STATION	DUKE ENERGY CORP	STOKES	27009	348
132	NC	DUKE ENERY PLANT ALLEN	DUKE ENERGY CORP	GASTON	28012	230
102	nu	PROGRESS ENERGY CAROLINA MAYO ELECTRIC	DUKL ENERGY COR	045101	20012	250
142	NC	GENERATING PLANT	PROGRESS ENERGY	PERSON	27574	220
172	NC	CLIFFSIDE STEAM STATION	DUKE ENERGY CORP	RUTHERFORD	28114	176
	110	PROCRESS ENERGY CAROLINAS INC LV SUTTON		no minint ond	20111	110
189	NC	ELECTRIC PLANT	PROGRESS ENERGY	NEW HANOVER	28401	140
198	NC	DUKE ENERGY RIVERBEND STEAM STATION	DUKE ENERGY CORP	GASTON	28120	133
201	NC	PROGRESS ENERGY CAROLINAS INC ASHEVILLE PLT	PROGRESS ENERGY	BUNCOMBE	28704	130
216	NC	DUKE ENERGY BUCK STEAM STATION	DUKE ENERGY CORP	ROWAN	28146	114
234	NC	PROGRESS ENERGY CAROLINAS H. F. LEE STEAM ELECTRIC PLANT	PROGRESS ENERGY	WAYNE	27530	100
266	NC	PROGRESS ENERGY CAROLINAS CAPE FEAR STEAM ELECTRIC PLANT	PROGRESS ENERGY	CHATHAM	27559	71
300	NC	DUKE ENERGY DAN RIVER STEAM STATION	DUKE ENERGY CORP	ROCKINGHAM	27288	52
328	NC	COGENTRIX OF ROCKY MOUNT	COGENTRIX	EDGECOMBE	27200	37
520	NG.	PROGRESS ENERGY CAROLINAS INC W.H.	COULTINA	PROFFORME	21009	Ji
347	NC	WEATHERSPOON ELECTRIC	PROGRESS ENERGY	ROBESON	28358	30

Deat	Ctoto	Facility	Parent Company*	Countr	Zip	Reported Mercury Air Emissions from Power Plants
Rank 387	State NC	COGENTRIX OF NORTH CAROLINA SOUTHPORT	COGENTRIX	County BRUNSWICK	28461	(pounds) 17
440	NC	GREEN POWER KENANSVILLE LLC	GREEN POWER LLC	DUPLIN	28349	7
442	NC	COGENTRIX OF NORTH CAROLINA ROXBORO	COGENTRIX	PERSON	27573	7
461	NC	ROANOKE VALLEY ENERGY FACILITY	LG & E ENERGY CORP	HALIFAX	27373	2
12	ND	GREAT RIVER ENERGY COAL CREEK STATION	GREAT RIVER ENERGY	MC LEAN	58576	927
52	ND	MILTON R YOUNG STATION	MINNKOTA POWER COOPERATIVE INC	OLIVER	58530	470
59	ND	BASIN ELECTRIC POWER ANTELOPE VALLEY STN	BASIN ELECTRIC POWER CO-OP	MERCER	58523	440
96	ND	BASIN ELECTRIC POWER CO-OP LELAND OLDS STN	BASIN ELECTRIC POWER CO-OP	MERCER	58571	300
114	ND	OTTER TAIL POWER CO COYOTE STATION	OTTER TAIL POWER CO	MERCER	58523	260
248	ND	GREAT RIVER ENERGY STANTON STATION	GREAT RIVER ENERGY	MERCER	58571	86
348	ND	R.M. HESKETT STATION	MDU RESOURCES GROUP INC	MORTON	58554	29
140	ND	GERALD GENTLEMAN STATION	NEBRASKA PUBLIC POWER DISTRICT	LINCOLN	50554 69165	29
298	NE	ORALD GENTLEMAN STATION OMAHA PUBLIC POWER DIST. NEBRASKA CITY STN	OMAHA PUBLIC POWER DISTRICT	OTOE	68410	52
319		OMAHA PUBLIC POWER DIST. NEDRASKA GITI STN OMAHA PUBLIC POWER DIST. NORTH OMAHA STN	OMAHA PUBLIC POWER DISTRICT	DOUGLAS	68112	41
	NE		CITY OF GRAND ISLAND		_	36
331	NE	PLATTE GENERATING STATION CITY OF FREMONT DEPARTMENT OF UTILITIES LON	CITY OF GRAND ISLAND CITY OF FREMONT DEPARTMENT OF	HALL	68801	30
361	NE	D WRIGHT POWER	UTILITIES	DODGE	68025	24
	NE	NEBRASKA PUBLIC POWER DISTRICT SHELDON STN	NEBRASKA PUBLIC POWER DISTRICT	LANCASTER	68368	12
410						
476 212	NE	WHELAN ENERGY CENTER	HASTINGS UTILITIES NORTHEAST UTILITIES	ADAMS	68901	0.80
	NH	MERRIMACK STATION		MERRIMACK	03304	
424	NH	SCHILLER STATION	NORTHEAST UTILITIES	ROCKINGHAM	03801	9
443	NH	NEWINGTON STATION	NORTHEAST UTILITIES	ROCKINGHAM	03801	6
138	NJ	B.L. ENGLAND GENERATING STATION	PEPCO HOLDINGS INC	CAPE MAY	08223	226
283	NJ	PSEG POWER LLC MERCER GENERATING STATION	PSEG	MERCER	08611	62
306	NJ	BERGEN GENERATING STATION	PSEG	BERGEN	07657	47
315	NJ	PSEG POWER LLC HUDSON GENERATING STATION	PSEG	HUDSON	07306	43
323	NJ	DEEPWATER GENERATING STATION	PEPCO HOLDINGS INC	SALEM	08070	39
414	NJ	CHAMBERS COGENERATION LP	PG&E CORP	SALEM	08069	12
418	NJ	PSEG-BURLINGTON GENERATING STATION	PSEG	BURLINGTON	08016	11
422	NJ	PSEG POWER LLC LINDEN GENERATING STATION	PSEG	UNION	07036	10
466	NJ	LOGAN GENERATING CO LP	PG&E CORP	GLOUCESTER	08085	1
26		SAN JUAN GENERATING STATION	PNM RESOURCES	SAN JUAN	87421	681
32	NM	FOUR CORNERS STEAM ELECTRIC STATION	PINNACLE WEST CAPITAL CORP	SAN JUAN	87416	627
		TRI-STATE GENERATION & TRANSMISSION				
337	NM	ESCALANTE STATION	TRI-STATE GENERATION & TRANSMISSION	MC KINLEY	87045	33
154	NV	MOHAVE GENERATING STATION	EDISON INTERNATIONAL	CLARK	89029	201
278	NV	REID GARDNER GENERATING STATION	SIERRA PACIFIC RESOURCES	CLARK	89025	63
435	NV	NORTH VALMY STATION	SIERRA PACIFIC RESOURCES	HUMBOLDT	89438	8
205	NY	DUNKIRK STEAM STATION	NRG ENERGY INC	CHAUTAUQUA	14048	127
210	NY	HUNTLEY GENERATING STATION	NRG ENERGY INC	ERIE	14150	121
227	NY	SAMUEL CARLSON GENERATING STATION	BOARD OF PUBLIC UTILTHES JAMESTOWN NY	CHAUTAUQUA	14701	105
249	NY	RUSSELL STATION	ENERGY EAST CORPORATION	MONROE	14612	84
256	NY	BROOKLYN NAVY YARD COGENERATION FACILITY	DELTA POWER	KINGS	11205	79
258	NY	DANEGY SKAMMER GENERATING FACILITY	DYNEGY INC	ORANGE	12550	77
275	NY	AES SOMERSET LLC	AES CORP	NIAGARA	14012	66
296	NY	AES-CAYUGA LLC	AES CORP	TOMPKINS	14882	53
298	NY	AES-GREENIDGE LLC	AES CORP	YATES	14002	52
312	NY	AES-OREENDOE ELC AES WESTOVER	AES CORP	BROOME	13790	44
345	NY	MIRANT LOVETT GENERATING STATION	MIRANT CORP	ROCKLAND	10993	30
345 359	NY	DYNEGY ROSETON GENERATING FACILITY	DYNEGY INC	ORANGE	10995	25
997	NI	DINEUT RUSETUN GENERATING FAULTT	DINEOI INC	URANUE	12990	20

Rank	State	Facility	Parent Company*	County	Zip	Reported Mercury Air Emissions from Power Plants (pounds)
383	NY	RELIANT ENERGY ASTORIA GENERATING STATION	RELIANT ENERGY INC	QUEENS	11105	18
399	NY	KEYSPAN ENERGY NORTHPORT POWER STATION	KEYSPAN ENERGY	SUFFOLK	11768	14
456	NY	TRIGEN-SYRACUSE ENERGY CORP	TRIGEN ENERGY CORP	ONONDAGA	13204	3
483	NY	BLACK RIVER POWER ELECTRIC GENERATING FAC.	BLACK RIVER POWER LLC	JEFFERSON	13603	0.17
4	OH	AMERICAN ELECTRIC POWER CONESVILLE PLANT	AMERICAN ELECTRIC POWER	COSHOCTON	43811	1,222
17	OH	J. M. STUART STATION	DPL INC	ADAMS	45144	856
29	OH	AMERICAN ELECTRIC POWER CARDINAL PLANT	AMERICAN ELECTRIC POWER	JEFFERSON	43913	657
33	OH	OHIO EDISON W.H. SAMMIS PLANT	FIRSTENERGY CORP	JEFFERSON	43961	624
46	0H	AMERICAN ELECTRIC POWER GAVIN PLANT	AMERICAN ELECTRIC POWER	GALLIA	45620	528
40 74	0H	AMERICAN ELECTRIC FOWER MUSKINGUM RIVER PLANT	AMERICAN ELECTRIC POWER	WASHINGTON	45715	368
74	0H	RELIANT ENERGY AVON LAKE POWER PLANT	RELIANT ENERGY INC	LORAIN	44012	361
83	011 0H	CINERGY MIAMI FORT GENERATING STATION	CINERGY CORP	HAMILTON	44012	334
				-		
87	OH	CINERGY ZIMMER GENERATING STATION	CINERGY CORP	CLERMONT	45153	327
88	OH	CINERGY BECKJORD GENERATING STATION	CINERGY CORP	CLERMONT	45157	322
90	OH	KYGER CREEK STATION	OHIO VALLEY ELECTRIC CORP	GALLIA	45620	320
97	OH	CLEVELAND ELECTRIC ILLUMINATING EASTLAKE PLT	FIRSTENERGY CORP	LAKE	44095	299
149	OH	DAYTON POWER & LIGHT CO KILLEN STATION	DPL INC	ADAMS	45144	210
173	OH	RELIANT ENERGY NILES POWER PLANT	RELIANT ENERGY INC	TRUMBULL	44446	174
221	OH	TOLEDO EDISON CO BAYSHORE PLANT	FIRSTENERGY CORP	LUCAS	43616	110
241	OH	OHIO EDISON CO R. E. BURGER PLANT	FIRSTENERGY CORP	BELMONT	43947	93
		AMERICAN MUNICIPAL POWER — OHIO RICHARD H				
245	OH	GORSUCH STATION	AMERICAN MUNICIPAL POWER - OHIO	WASHINGTON	45750	87
284	OH	O. H. HUTCHINGS STATION	DPL INC	MONTGOMERY	45342	61
		CLEVELAND ELECTRIC ILLUMINATING CO				
329	OH	ASHTABULA POWER PLANT	FIRSTENERGY CORP	ASHTABULA	44004	37
		CLEVELAND ELECTRIC ILLUMINATING CO.				
332	OH	LAKESHORE PLANT	FIRSTENERGY CORP	CUYAHOGA	44103	35
342	OH	AMERICAN ELECTRIC POWER PICWAY PLANT	AMERICAN ELECTRIC POWER	PICKAWAY	43137	31
353	OH	CITY OF PAINESVILLE POWER PLANT	CITY OF PAINESVILLE	LAKE	44077	28
		CITY OF ORRVILLE DEPT OF PUBLIC UTILITIES				
373	OH	ELECTRIC DEPT	CITY OF ORRVILLE	WAYNE	44667	21
455	OH	CITY OF HAMILTON POWER PLANT	CITY OF HAMILTON	BUTLER	45011	3
82	OK	MUSKOGEE GENERATING STATION	OGE ENERGY CORP	MUSKOGEE	74434	335
86	OK	GRAND RIVER DAM AUTH. COAL FIRED COMPLEX	GRAND RIVER DAM AUTHORITY	MAYES	74337	329
128	0K	AMERICAN ELECTRIC POWER NORTHEASTERN STN	AMERICAN ELECTRIC POWER	ROGERS	74053	234
		OKLAHOMA GAS & ELECTRIC CO SOONER				
130	OK	GENERATING STATION	OGE ENERGY CORP	NOBLE	74651	232
180	OK	WESTERN FARMERS ELECTRIC COOP	WESTERN FARMERS ELECTRIC COOP	CHOCTAW	74735	161
243	OK	AES SHADY POINT LLC	AES CORP	LE FLORE	74951	91
148	OR	BOARDMAN PLANT	PORTLAND GENERAL ELECTRIC	MORROW	97818	210
		U.S. DOE BONNEVILLE POWER ADMIN. CELILO				
417	OR	CONVERTER STATION	U.S. DEPARTMENT OF ENERGY	WASCO	97058	11
3	PA	RELIANT ENERGY KEYSTONE POWER PLANT	RELIANT ENERGY INC	ARMSTRONG	15774	1,280
		PENNSYLVANIA POWER CO. BRUCE MANSFIELD				
20	PA	POWER PLANT	FIRSTENERGY CORP	BEAVER	15077	783
24	PA	RELIANT ENERGY SHAWVILLE STATION	RELIANT ENERGY INC	CLEARFIELD	16873	701
28	PA	EME HOMER CITY GENERATION L P	EDISON INTERNATIONAL	INDIANA	15748	665
45	PA	RELIANT ENERGY CONEMAUGH POWER PLANT	RELIANT ENERGY INC	INDIANA	15944	541
53	PA	ALLEGHENY ENERGY INC HATFIELD POWER STN	ALLEGHENY ENERGY INC	GREENE	15461	470
98	PA	MONTOUR STEAM ELECTRIC STATION	PPL CORPORATION	MONTOUR	17821	296
	PA	PPL BRUNNER ISLAND STEAM ELECTRIC STATION	PPL CORPORATION	YORK	17370	272

Rank	State	Facility	Parent Company*	County	Zip	Reported Mercury Air Emissions from Power Plants (pounds)
120	PA	ALLEGHENY ENERGY INC ARMSTRONG POWER STN	ALLEGHENY ENERGY INC	ARMSTRONG	16201	247
125	PA	SUNBURY GENERATION LLC	WPS RESOURCES CORP	SNYDER	17876	240
127	PA	CHESWICK POWER PLANT	RELIANT ENERGY INC	ALLEGHENY	15144	236
156	PA	NEW CASTLE POWER PLANT	RELIANT ENERGY INC	LAWRENCE	16160	200
170	PA	EXELON CORP. EDDYSTONE GENERATING STATION	EXELON CORP	DELAWARE	19022	181
199	PA	RELIANT ENERGY SEWARD POWER PLANT	RELIANT ENERGY INC	INDIANA	15944	132
219	PA	RELIANT ENERGY PORTLAND POWER PLANT	RELIANT ENERGY INC	NORTHAMPTON	18351	112
252	PA	RELIANT ENERGY TITUS POWER PLANT	BELIANT ENERGY INC	BERKS	19508	82
286	PA	RELIANT ENERGY INC ELRAMA POWER PLANT	RELIANT ENERGY INC	WASHINGTON	15038	61
		ALLEGHENY ENERGY INC MITCHELL POWER				• -
294	PA	STATION	ALLEGHENY ENERGY INC	WASHINGTON	15067	56
304	PA	PPL MARTINS CREEK STEAM ELECTRIC STATION	PPL CORPORATION	NORTHAMPTON	18013	49
317	PA	AES BEAVER VALLEY LLC	AES CORP	BEAVER	15061	42
325	PA	EXELON CORP. CROMBY GENERATING STATION	EXELON CORP	CHESTER	19460	39
330	PA	WPS WESTWOOD GENERATION LLC	WPS RESOURCES CORP	SCHUYLKILL	17981	36
362	PA	HUNLOCK POWER STATION	UGI CORPORATION	LUZERNE	18621	23
416	PA	CONECTIV BETHLEHEM PLANT	PEPCO HOLDINGS INC	NORTHAMPTON	18015	11
419	PA	SAINT NICHOLAS COGENERATION PROJECT	SCHUYLKILL ENERGY RESOURCES	SCHUYLKILL	17976	10
431	PA	CAMBRIA COGEN CO	EL PASO CORP	CAMBRIA	15931	8
438	PA	EBENSBURG POWER CO	MCDERMOTT INTERNATIONAL	CAMBRIA	15931	7
		PG&E INTL ENERGY GROUP NORTHAMPTON		-		
452	PA	GENERATING PLANT	PG&E CORP	NORTHAMPTON	18067	4
459	PA	SCRUBGRASS GENERATING PLANT	PG&E CORP	VENANGO	16374	2
467	PA	NORTHEASTERN POWER CO	SUEZ ENERGY INTERNATIONAL	SCHUYLKILL	18237	1
467	PA	COLVER POWER PROJECT	CONSTELLATION ENERGY GROUP	CAMBRIA	15927	1
475	PA	PINEY CREEK LP	AMERICAN CONSUMER INDUSTRIES INC	CLARION	16214	0.83
477	PA	MOUNT CARMEL COGEN FACILITY	FOSTER WHEELER	NORTHUMBERLAND	17832	0.60
477	PA	PANTHER CREEK PARTNERS	CONSTELLATION ENERGY GROUP	CARBON	18240	0.60
487	PA	GILBERTON POWER CO	FPL GROUP	SCHUYLKILL	17931	0.03
188	SC	WILLIAMS STATION – GENCO	SCANA CORPORATION	BERKELEY	29445	145
245	SC	WATEREE STATION - S C E & G	SCANA CORPORATION	RICHLAND	29044	87
249	SC	CANADYS STATION	SCANA CORPORATION	COLLETON	29433	84
255	SC	LEE STEAM STATION	DUKE ENERGY CORP	ANDERSON	29669	80
291	SC	PROGRESS ENERGY CAROLINA'S INC HB ROBINSON	PROGRESS ENERGY	DARLINGTON	29550	57
		SOUTH CAROLINA ELECTRIC & GAS CO COPE				
334	SC	STATION	SCANA CORPORATION	ORANGEBURG	29038	34
		SOUTH CAROLINA GAS & ELECTRIC URQUHART				
350	SC	GENERATION STATION	SCANA CORPORATION	AIKEN	29841	29
364	SC	SCANA D-AREA SAVANNAH RIVER FACILITY	SCANA CORPORATION	BARNWELL	29801	23
377	SC	SOUTH CAROLINA ELECTRIC & GAS MCMEEKIN STN	SCANA CORPORATION	LEXINGTON	29212	20
397	SC	CROSS GENERATING STATION	SOUTH CAROLINA PUBLIC SERVICE AUTH.	BERKELEY	29468	14
401	SC	JEFFERIES GENERATING STATION	SOUTH CAROLINA PUBLIC SERVICE AUTH.	BERKELEY	29461	13
410	SC	WINYAH GENERATING STATION	SOUTH CAROLINA PUBLIC SERVICE AUTH.	GEORGETOWN	29440	12
450	SC	GRAINGER GENERATING STATION	SOUTH CAROLINA PUBLIC SERVICE AUTH.	HORRY	29526	5
451	SC	MEADWESTVACO NORTH CHARLESTON OPERATIONS	MEADWESTVACO CORP	CHARLESTON	29406	4
155	SD	BIG STONE PLANT	OTTER TAIL POWER CO	GRANT	57216	200
407	SD	BLACK HILLS CORP BEN FRENCH POWER PLANT	BLACK HILLS CORP	PENNINGTON	57702	13
50	TN	U.S. TVA KINGSTON FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	ROANE	37748	490
89	TN	U.S. TVA JOHN SEVIER FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	HAWKINS	37857	320
106	TN	U.S. TVA JOHNSONVILLE FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	HUMPHREYS	37134	280
112	TN	U.S. TVA CUMBERLAND FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	STEWART	37050	270

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114	TN	U.S. TVA BULL RUN FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	ANDERSON	37716	260
123	TN	U.S. TVA GALLATIN FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	SUMNER	37066	243
181	TN	U.S. TVA ALLEN FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	SHELBY	38109	160
-		TXU MONTICELLO STEAM ELECTRIC STATION &				
1	ТХ	LIGNITE MINE	TXU ENERGY	TITUS	75455	1,404
2	ТХ	LIMESTONE ELECTRIC GENERATING STATION	TEXAS GENCO LP	LIMESTONE	75846	1,386
6	ТХ	MARTIN LAKE STEAM ELECTRIC STATION & LIGNITE MINE	TXU ENERGY	RUSK	75691	1,114
		AMERICAN ELECTRIC POWER H.W. PIRKEY POWER				
7	ТХ	PLANT	AMERICAN ELECTRIC POWER	HARRISON	75650	1,040
8	TX	W A PARISH ELECTRIC GENERATING STATION	TEXAS GENCO LP	FORT BEND	77481	1,033
51	ТХ	O W SOMMERS /J T DEELY/J K SPRUCE GENERATING COMPLEX	CITY PUBLIC SERVICE	BEXAR	78263	478
57	ТХ	BIG BROWN STEAM ELECTRIC STN & LIGNITE MINE	TXU ENERGY	FREESTONE	75840	443
61	TX	AMERICAN ELECTRIC POWER WELSH POWER PLANT	AMERICAN ELECTRIC POWER	CAMP	75686	438
			LOWER COLORADO RIVER AUTHORITY/CITY			
66	ТХ	L.C.R.A. FAYETTE POWER PROJECT	OF AUSTIN	FAYETTE	78945	397
71	ТХ	GIBBONS CREEK STEAM ELECTRIC STATION	TEXAS MUNICIPAL POWER AGENCY	GRIMES	77830	372
101	TX	TWIN OAKS POWER L P	SEMPRA ENERGY	ROBERTSON	76629	294
109	TX	SANDOW STEAM ELECTRIC STATION	TXU ENERGY	MILAM	76567	278
178	ТХ	AMERICAN ELECTRIC POWER OKLAUNION POWER STATION	AMERICAN ELECTRIC POWER	WILBARGER	76384	165
		AMERICAN ELECTRIC POWER COLETO CREEK POWER				
197	TX	PLANT	AMERICAN ELECTRIC POWER	GOLIAD	77960	134
309	ТХ	CEDAR BAYOU ELECTRIC GENERATING STATION	TEXAS GENCO LP	CHAMBERS	77521	46
311	ТХ	SOUTHWESTERN PUBLIC SERVICE HARRINGTON STN	XCEL ENERGY	POTTER	79108	45
355	ТХ	SUTHWESTERN PUBLIC SERVICE CO TOLK STATION	XCEL ENERGY	LAMB	79100	27
446	ТХ	V.H. BRAUNIG A. VON ROSENBERG POWER PLANTS	CITY PUBLIC SERVICE	BEXAR	78112	6
440	ТХ	SAN MIGUEL ELECTRIC COOPERATIVE INC	MORA-SAN MIGUEL ELECTRIC CO-OP	ATASCOSA	78012	0.31
400	UT	INTERMOUNTAIN POWER GENERATIVE INC	INTERMOUNTAIN POWER AGENCY	MILLARD	84624	223
208	UT	PACIFICORP HUNTER PLANT	PACIFICORP	EMERY	84513	122
313	UT	PACIFICORP CARBON PLANT	PACIFICORP	CARBON	84526	43
322	UT	PACIFICORP HUNTINGTON PLANT	PACIFICORP	EMERY	84528	39
373	UT	BONANZA POWER PLANT	DESERET POWER	UINTAH	04320 84078	21
	UT	BUNANZA POWER FLANT SUNNYSIDE COGENERATION ASSOCIATES	CONSTELLATION ENERGY GROUP	CARBON	84539	21
404 73	VA	CHESTERFIELD POWER STATION	DOMINION	CARBON CHESTERFIELD	84559 23836	370
175	VA VA	BREMO POWER STATION	DOMINION	FLUVANNA	23030	170
175	VA VA	AMERICAN ELECTRIC POWER CLINCH RIVER PLANT	AMERICAN ELECTRIC POWER	RUSSELL	23022	170
180	VA VA	AMERICAN ELECTRIC FOWER CLINCH RIVER PLANT CHESAPEAKE ENERGY CENTER	AMERICAN ELECTRIC POWER	CHESAPEAKE CITY	24225	148
221	VA VA	DOMINION RESOURCES INC YORKTOWN POWER STN	DOMINION	YORK	23525	140
221	VA VA	POTOMAC RIVER GENERATING STATION	MIRANT CORP	ALEXANDRIA CITY	23092	71
207 276	VA VA	COGENTRIX OF RICHMOND INC	COGENTRIX	ALEAANDRIA (TTY RICHMOND CITY	22314 23234	65
270	-			GILES	23234 24093	
278	VA VA	AMERICAN ELECTRIC POWER GLEN LYN PLANT	AMERICAN ELECTRIC POWER	GILES PRINCE GEORGE	24093 23860	<u>63</u> 53
-	VA VA	HOPEWELL COGENERATION FACILITY	SUEZ ENERGY INTERNATIONAL		23860 23415	53 43
313	VA VA	COMMONWEALTH CHESAPEAKE POWER STATION	TECO ENERGY INC	ACCOMACK HODEWELL CITY		-
351	VA	JAMES RIVER COGENERATION CO INC	COGENTRIX	HOPEWELL CITY	23860	29 27
354	VA	COGENTRIX VIRGINIA LEASING CORP	COGENTRIX	PORTSMOUTH CITY	23703	
356	VA	POSSUM POINT POWER STATION	DOMINION	PRINCE WILLIAM	22026	26
366	VA	DOMINION RESOURCES GORDONSVILLE POWER STN	DOMINION CINERCY CORP.	LOUISA	22942	22
369	VA	CINERGY SOLUTIONS OF NARROWS LLC	CINERGY CORP	GILES	24124	22

Rank	State	Facility	Parent Company*	County	Zip	Reported Mercury Air Emissions from Power Plants (pounds)
388	VA	DOMINION CLOVER POWER STATION	DOMINION	HALIFAX	24534	17
465	VA	UAE MECKLENBURG COGENERATION LP	UNITED AMERICAN ENERGY CORP	MECKLENBURG	23927	2
467	VA	ALTAVISTA POWER STATION	DOMINION	CAMPBELL	24517	1
467	VA	SOUTHAMPTON POWER STATION	DOMINION	SOUTHAMPTON	23851	1
484	VA	BIRCHWOOD POWER FACILITY	GENERAL ELECTRIC	KING GEORGE	22485	0.10
218	WA	TRANSALTA CENTRALIA GENERATION MINING	TRANSALTA CORPORATION	LEWIS	98531	113
21	WI	PLEASANT PRAIRIE POWER PLANT	WISCONSIN ENERGY CORP	KENOSHA	53142	762
43	WI	WP & L COLUMBIA ENERGY CENTER	ALLIANT ENERGY	COLUMBIA	53954	556
121	WI	EDGEWATER GENERATING STATION	ALLIANT ENERGY	SHEBOYGAN	53081	246
137	WI	OAK CREEK POWER PLANT	WISCONSIN ENERGY CORP	MILWAUKEE	53154	227
190	WI	WPS WESTON POWER PLANT	WPS RESOURCES CORP	MARATHON	54474	140
193	WI	DAIRYLAND POWER COOPERATIVE ALMA SITE	DAIRYLAND POWER COOPERATIVE	BUFFALO	54610	138
201	WI	WPS PULLIAM POWER PLANT	WPS RESOURCES CORP	BROWN	54303	130
263	WI	DAIRYLAND POWER CO-OP GENOA SITE	DAIRYLAND POWER COOPERATIVE	VERNON	54632	74
285	WI	WP & L NELSON DEWEY GENERATING STATION	ALLIANT ENERGY	GRANT	53806	61
320	WI	VALLEY POWER PLANT	WISCONSIN ENERGY CORP	MILWAUKEE	53233	40
326	WI	PORT WASHINGTON POWER PLANT	WISCONSIN ENERGY CORP	OZAUKEE	53074	39
392	WI	NORTHERN STATES POWER CO BAY FRONT PLANT	XCEL ENERGY	ASHLAND	54806	15
		MANITOWOC PUBLIC UTILITIES - WATER				
415	WI	TREATMENT PLANT	MANITOWOC PUBLIC UTILITIES	MANITOWOC	54221	11
419	WI	MADISON GAS & ELECTRIC CO	MGE ENERGY	DANE	53703	10
429	WI	EXCEL ENERGY FRENCH ISLAND PLANT	XCEL ENERGY	LA CROSSE	54603	9
15	WV	AMERICAN ELECTRIC POWER AMOS PLANT	AMERICAN ELECTRIC POWER	PUTNAM	25213	902
58	WV	ALLEGHENY ENERGY INC FORT MARTIN POWER STN	ALLEGHENY ENERGY INC	MONONGALIA	26541	442
85	WV	DOMINION MOUNT STORM POWER STATION	DOMINION	GRANT	26739	330
91	WV	AMERICAN ELECTRIC POWER MITCHELL PLANT	AMERICAN ELECTRIC POWER	MARSHALL	26041	317
92	WV	AMERICAN ELECTRIC POWER MOUNTAINEER PLANT	AMERICAN ELECTRIC POWER	MASON	25265	315
100	WV	AMERICAN ELECTRIC POWER PHILIP SPORN PLANT	AMERICAN ELECTRIC POWER	MASON	25265	295
102	WV	ALLEGHENY ENERGY INC HARRISON POWER STN	ALLEGHENY ENERGY INC	HARRISON	26366	293
		ALLEGHENY ENERGY INC PLEASANTS/WILLOW				
105	WV	ISLAND POWER STATIONS	ALLEGHENY ENERGY INC	PLEASANTS	26134	290
146	WV	AMERICAN ELECTRIC POWER KAMMER PLANT	AMERICAN ELECTRIC POWER	MARSHALL	26041	213
159	WV	ALLEGHENY ENERGY INC ALBRIGHT POWER STN	ALLEGHENY ENERGY INC	PRESTON	26519	198
178	WV	MORGANTOWN ENERGY ASSOCIATES	DOMINION	MONONGALIA	26505	165
216	WV	AMERICAN ELECTRIC POWER KANAWHA RIVER PLT	AMERICAN ELECTRIC POWER	KANAWHA	25086	114
310	WV	ALLEGHENY ENERGY INC RIVESVILLE POWER STN	ALLEGHENY ENERGY INC	MARION	26588	45
352	WV	AMERICAN BITUMINOUS POWER PARTNERS LP	EDISON INTERNATIONAL	MARION	26574	28
481	WV	DOMINION NORTH BRANCH POWER STATION	DOMINION	GRANT	26720	0.30
30	WY	BASIN ELECTRIC POWER CO-OP LARAMIE RIVER STN	BASIN ELECTRIC POWER CO-OP	PLATTE	82201	650
54	WY	PACIFICORP JIM BRIDGER PLANT & BRIDGER COAL	PACIFICORP	SWEETWATER	82942	468
93	WY	PACIFICORP DAVE JOHNSTON PLANT	PACIFICORP	CONVERSE	82637	313
174	WY	PACIFICORP WYODAK PLANT	PACIFICORP	CAMPBELL	82718	173
211	WY	PACIFICORP NAUGHTON PLANT	PACIFICORP	LINCOLN	83101	121
297	WY	BLACK HILLS CORP NEIL SIMPSON COMPLEX	BLACK HILLS CORP	CAMPBELL	82718	52
360	WY	BLACK HILLS CORP OSAGE POWER PLANT	BLACK HILLS CORP	WESTON	82723	24

\* This may not reflect changes in ownership since 2003, the year for which facilities are reporting.

## Appendix C.2. Power Plant in Each State with Highest Mercury Air Emissions, 2003

State	Top Facility	Parent Company*	County	Reported Mercury Air Emissions from Power Plants, Facility (pounds)	Reported Mercury Air Emissions from Power Plants, Statewide (pounds)	% from Top Facility
	GOLDEN VALLEY ELECTRIC ASSOCIATES INC	GOLDEN VALLEY ELECTRIC				
AK	HEALY POWER PLANT	ASSOCIATES	DENALI	19	32	59%
AL	ALABAMA POWER CO MILLER STEAM PLT	SOUTHERN CO	JEFFERSON	994	4,399	23%
AR	WHITE BLUFF GENERATING PLANT	ENTERGY CORP	JEFFERSON	460	962	48%
AZ	TUCSON ELECTRIC POWER CO SPRINGERVILLE GENERATING STATION	UNISOURCE ENERGY	APACHE	605	1,696	36%
CA CA	POSDEF POWER CO LP	FPL GROUP	SAN JOAQUIN	14	1,050	77%
UA	TRI-STATE GENERATION & TRANSMISSION	TRI-STATE GENERATION &	SAN JUAQUIN	14	10	11/0
C0	CRAIG STATION	TRANSMISSION	MOFFAT	120	343	35%
CT	AES THAMES LLC	AES CORP	NEW LONDON	51	102	50%
DC	BENNING GENERATING STATION	PEPCO HOLDINGS INC	D.C.	0.5	0.5	100%
DE	EDGE MOOR/HAY ROAD POWER PLANTS	PEPCO HOLDINGS INC	NEW CASTLE	212	242	87%
	ST. JOHNS RIVER POWER					
FL	PARK/NORTHSIDE GENERATING STATION	JEA	DUVAL	599	2,982	20%
	GEORGIA POWER SCHERER STEAM ELECTRIC					
GA	GENERATING PLANT	SOUTHERN CO	MONROE	805	2,805	29%
	HAWAIIAN ELECTRIC CO INC KAHE					
HI	GENERATING STATION	HAWAIIAN ELECTRIC INDUSTRIES	HONOLULU	160	362	44%
IA	OTTUMWA GENERATING STATION	ALLIANT ENERGY	WAPELLO	580	2,453	24%
IL	EDISON INTL. POWERTON GENERATING STN	EDISON INTERNATIONAL	TAZEWELL	561	4,125	14%
IN	AMERICAN ELECTIC POWER ROCKPORT PLT	AMERICAN ELECTRIC POWER	SPENCER	873	4,885	18%
KS	JEFFREY ENERGY CENTER	WESTAR ENERGY INC	POTTAWATOMIE	1,197	2,126	56%
КҮ	U.S. TVA PARADISE FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	MUHLENBERG	600	3,486	17%
LA	BIG (AJUN 2	NRG ENERGY INC	POINTE COUPEE	919	1.434	64%
LA	DIG (AJUN 2	NATIONAL ENERGY & GAS	FUINTE COUFEE	919	1,404	04/0
MA	USGEN NEW ENGLAND INC	TRANSMISSION	BRISTOL	117	205	57%
MD	BRANDON SHORES & WAGNER COMPLEX	CONSTELLATION ENERGY GROUP	BALTIMORE CITY	670	1,659	40%
ME	MASON STEAM STATION	FPL GROUP	LINCOLN	0.0000015	0.0000015	100%
MI	DETROIT EDISON MONROE POWER PLANT	DTE ENERGY CO	MONROE	683	2,462	28%
MN	NORTHERN STATES POWER CO.	XCEL ENERGY	SHERBURNE	908	1,629	56%
MO	AMERENUE LABADIE POWER PLANT	AMEREN CORP	FRANKLIN	960	3,289	29%
MS	TRACTEBEL POWER RED HILL POWER PLT	SUEZ ENERGY INTERNATIONAL	CHOCTAW	305	802	38%
MT	COLSTRIP STEAM ELECTRIC STATION	PPL CORPORATION	ROSEBUD	850	986	86%
	PROGRESS ENERGY CAROLINAS INC					
NC	ROXBORO STEAM ELECTRIC PLANT	PROGRESS ENERGY	PERSON	710	3,038	23%
	GREAT RIVER ENERGY COAL CREEK					
ND	STATION	GREAT RIVER ENERGY	MC LEAN	927	2,512	37%
NE	GERALD GENTLEMAN STATION	NEBRASKA PUBLIC POWER DISTRICT	LINCOLN	224	389	58%
NH	MERRIMACK STATION	NORTHEAST UTILITIES	MERRIMACK	120	136	88%
NJ	B.L. ENGLAND GENERATING STATION	PEPCO HOLDINGS INC	CAPE MAY	226	450	50%
NM	SAN JUAN GENERATING STATION	PNM RESOURCES	SAN JUAN	681	1,341	51%
NV	MOHAVE GENERATING STATION	EDISON INTERNATIONAL	CLARK	201	272	74%
NY	DUNKIRK STEAM STATION	NRG ENERGY INC	CHAUTAUQUA	127	899	14%
OH	AMERICAN ELECTRIC POWER CONESVILLE	AMERICAN ELECTRIC POWER	COSHOCTON	1.222	7,107	17%
OK	MUSKOGEE GENERATING STATION	OGE ENERGY CORP	MUSKOGEE	335	1,382	24%
OR	BOARDMAN PLANT	PORTLAND GENERAL ELECTRIC	MORROW	210	221	95%
PA	RELIANT ENERGY KEYSTONE POWER PLANT	RELIANT ENERGY INC	ARMSTRONG	1,280	6,789	19%

State	Top Facility	Parent Company*	County	Reported Mercury Air Emissions from Power Plants, Facility (pounds)	Reported Mercury Air Emissions from Power Plants, Statewide (pounds)	% from Top Facility
SC	WILLIAMS STATION – GENCO	SCANA CORPORATION	BERKELEY	145	607	24%
SD	BIG STONE PLANT	OTTER TAIL POWER CO	GRANT	200	213	94%
TN	U.S. TVA KINGSTON FOSSIL PLANT	U.S. TENNESSEE VALLEY AUTHORITY	ROANE	490	2,023	24%
	TXU MONTICELLO STEAM ELECTRIC					
TX	STATION & LIGNITE MINE	TXU ENERGY	TITUS	1,404	9,099	15%
UT	INTERMOUNTAIN POWER GENERATING STN	INTERMOUNTAIN POWER AGENCY	MILLARD	223	449	50%
VA	CHESTERFIELD POWER STATION	DOMINION	CHESTERFIELD	370	1,379	27%
	TRANSALTA CENTRALIA GENERATION					
WA	MINING	TRANSALTA CORPORATION	LEWIS	113	113	100%
WI	PLEASANT PRAIRIE POWER PLANT	WISCONSIN ENERGY CORP	KENOSHA	762	2,457	31%
WV	AMERICAN ELECTRIC POWER AMOS PLANT	AMERICAN ELECTRIC POWER	PUTNAM	902	3,948	23%
	BASIN ELECTRIC POWER CO-OP LARAMIE					
WY	RIVER STATION	BASIN ELECTRIC POWER CO-OP	PLATTE	650	1,800	36%

\* This may not reflect changes in ownership since 2003, the year for which facilities are reporting.

## Appendix D. Power Plant Mercury Air Emissions by Company, 2003

Rank	Parent Company*	Headquarters Location	Reported Mercury Air Emissions from Power Plants (pounds)	# of Power Plants Reporting Mercury Air Emissions
1	AMERICAN ELECTRIC POWER	Columbus, OH	8,797	22
2	SOUTHERN CO	Atlanta, GA	6,992	22
3	RELIANT ENERGY INC	Houston, TX	3,905	13
4	U.S. TENNESSEE VALLEY AUTHORITY	Knoxville, TN	3,364	11
5	TXU ENERGY	Dallas, TX	3,239	4
6	AMEREN CORP	St. Louis, MO	2,946	11
7	EDISON INTERNATIONAL	Rosemead, CA	2,718	10
8	TEXAS GENCO LP	Houston, TX	2.464	3
9	CINERGY CORP	Cincinnati, OH	2,375	11
10	ALLEGHENY ENERGY INC	Greensburg, PA	2.075	9
11	PROGRESS ENERGY	Raleigh, NC	2.029	11
12	DOMINION	Richmond, VA	1,993	14
13	FIRSTENERGY CORP	Akron, OH	1,981	7
14	ALLIANT ENERGY	Madison, WI	1,793	11
15	LG & E ENERGY CORP	Louisville, KY	1,683	11
16	DUKE ENERGY CORP	Charlotte, NC	1,646	8
17	PPL CORPORATION	Allentown, PA	1,556	6
18	WESTAR ENERGY INC	Topeka, KS	1,461	3
19	DTE ENERGY CO	Detroit, MI	1,438	7
20	BASIN ELECTRIC POWER CO-OP	Bismarck, ND	1,390	3
20	XCEL ENERGY	Minneapolis, MN	1,350	16
21	MIDAMERICAN ENERGY HOLDING CO	Des Moines, IA	1,349	5
23	PACIFICORP	Portland, OR	1,349	7
23	NRG ENERGY INC	Princeton, NJ	1,201	6
24	WISCONSIN ENERGY CORP	Milwaukee, WI	1,168	5
25	AES CORP	Arlington, VA	1,154	11
20	DPL INC	Dayton, OH	1,134	3
28	GREAT RIVER ENERGY	Elk River, MN	1,127	2
20	MIRANT CORP	Atlanta, GA	979	6
30	ENTERGY CORP	New Orleans, LA	975	4
31	PINNACLE WEST CAPITAL CORP	Phoenix, AZ	896	2
32	NISOURCE	Merrillville, IN	877	3
33	DYNEGY INC	Houston, TX	848	7
34	CONSTELLATION ENERGY GROUP	Baltimore, MD	777	8
34 35	CMS ENERGY	Jackson, MI	768	4
35 36	GREAT PLAINS ENERGY	Kansas City, MO	700	4
30 37	PNM RESOURCES	Albuquerque, NM	681	4
38	UNISOURCE ENERGY	Tucson, AZ	626	2
30 39	SALT RIVER PROJECT	Tempe, AZ	608	2
40	JEA	Jacksonville, FL	599	1
40	ASSOCIATED ELECTRIC COOPERATIVE INC	Springfield, M0	595	2
41 42	OHIO VALLEY ELECTRIC CORP	Piketon, OH	580	2
42	RINKER MATERIALS CORP	West Palm Beach, FL	570	1
40	OGE ENERGY CORP	Oklahoma City, OK	567	2
44 45	WPS RESOURCES CORP	Green Bay, WI	546	4
40	OTTER TAIL POWER CO	Fergus Falls, MN	489	3
40 47	PEPCO HOLDINGS INC	Washington, DC	489	5
47	CITY PUBLIC SERVICE		488	2
	MINNKOTA POWER COOPERATIVE INC	San Antonio, TX Grand Forks, ND	484 470	2
49		I THAIR FOLKS. NU	470	1 1

Rank	Parent Company*	Headquarters Location	Reported Mercury Air Emissions from Power Plants (pounds)	# of Power Plants Reporting Mercury Air Emissions
51	SCANA CORPORATION	Columbia, SC	422	7
52	TECO ENERGY INC	Tampa, FL	408	4
53	LOWER COLORADO RIVER AUTHORITY/CITY OF AUSTIN	Austin, TX	397	1
54	CLECO CORPORATION	Pineville, LA	378	2
55	ALLETE INC	Duluth, MN	373	3
56	TEXAS MUNICIPAL POWER AGENCY	Bryan, TX	372	1
57	SUEZ ENERGY INTERNATIONAL	Brussels, Belgium	359	3
58	GRAND RIVER DAM AUTHORITY	Vinita, OK	329	1
59	SEMPRA ENERGY	San Diego, CA	294	1
60	HOOSIER ENERGY REC INC	Bloomington, IN	286	2
61	HAWAIIAN ELECTRIC INDUSTRIES INC	Honolulu, HI	282	5
62	SUNFLOWER ELECTRIC POWER CORP.	Hays, KS	251	1
63	EXELON CORP	Chicago, IL	239	3
64	NEBRASKA PUBLIC POWER DISTRICT	Columbus, NE	236	2
65	PSEG	Newark, NJ	235	7
66	VECTREN CORP	Evansville, IN	225	2
67	INTERMOUNTAIN POWER AGENCY	South Jordan, UT	223	1
68	COGENTRIX	Charlotte, NC	220	7
69	SOUTH MISSISSIPPI ELECTRIC POWER ASSOC.	Hattiesburg, MS	218	1
70	DAIRYLAND POWER COOPERATIVE	La Crosse, WI	212	2
71	PORTLAND GENERAL ELECTRIC	Portland, OR	210	1
72	ARIZONA ELECTRIC POWER COOPERATIVE INC	Benson, AZ	192	1
73	ORLANDO UTILITIES CO	Orlando, FL	191	1
74	ALABAMA ELECTRIC COOPERATIVE INC	Andalusia, AL	190	1
75	TRI-STATE GENERATION & TRANSMISSION	Westminster, CO	165	3
76	WESTERN FARMERS ELECTRIC COOP	Anadarko, OK	161	1
77	NATIONAL ENERGY & GAS TRANSMISSION	Bethesda, MD	151	2
78	CITY UTILITIES OF SPRINGFIELD MISSOURI	Springfield, MO	149	2
79	NORTHEAST UTILITIES	Springfield, MA	136	3
80	MUSCATINE POWER & WATER	Muscatine, IA	130	1
81	CITY OF SIKESTON	Sikeston, MO	124	1
82	LANSING BOARD OF WATER & LIGHT	Lansing, MI	117	2
83	TRANSALTA CORPORATION	Calgary, Alberta, Canada	113	1
84	BOARD OF PUBLIC UTILTHES JAMESTOWN NY	Jamestown, NY	105	1
85	PLATTE RIVER POWER AUTHORITY	Fort Collins, CO	105	1
86	AQUILA INC	Kansas City, MO	104	3
87	LAKELAND ELECTRIC	Lakeland, FL	101	1
88	OMAHA PUBLIC POWER DISTRICT	Omaha, NE	93	2
89	BLACK HILLS CORP	Rapid City, SD	89	3
90	AMERICAN MUNICIPAL POWER - OHIO	Columbus, OH	87	1
91	ENERGY EAST CORPORATION	New Gloucester, ME	84	1
92	FPL GROUP	Juno Beach, FL	82	7
93	DELTA POWER	Morristown, NJ	79	1
94	SEMINOLE ELECTRIC COOPERATIVE INC	Tampa, FL	77	1
95	MDU RESOURCES GROUP INC	Bismarck, ND	76	2
96	SIERRA PACIFIC RESOURCES	Reno, NV	71	2
97	CITY OF GAINESVILLE	Gainesville, FL	69	1
98	OWENSBORO MUNICIPAL UTILITIES	Owensboro, KY	68	1
99	SOUTHERN ILLINOIS POWER COOPERATIVE	Dongola, IL	57	1
100	PG&E CORP	San Francisco, CA	51	5
101	COLORADO SPRINGS UTILITIES	Colorado Springs, CO	49	2
102	EMPIRE DISTRICT ELECTRIC CO.	Joplin, MO	46	2
103	SOUTH CAROLINA PUBLIC SERVICE AUTHORITY	Moncks Corner, SC	44	4

Rank	Parent Company*	Headquarters Location	Reported Mercury Air Emissions from Power Plants (pounds)	# of Power Plants Reporting Mercury Air Emissions
104	CITY OF GRAND ISLAND	Grand Island, NE	36	1
105	RICHMOND POWER & LIGHT	Richmond, IN	31	1
106	CITY OF PAINESVILLE	Painesville, OH	28	1
107	CITY OF SPRINGFIELD	Springfield, IL	26	1
108	CITY OF FREMONT DEPARTMENT OF UTILITIES	Fremont, NE	24	1
109	UGI CORPORATION	Valley Forge, PA	23	1
110	CITY OF AMES	Ames, IA	21	1
111	DESERET POWER	South Jordan, UT	21	1
111	CITY OF ORRVILLE	Orrville, OH	21	1
113	GOLDEN VALLEY ELECTRIC ASSOCIATES INC	Fairbanks, AK	19	1
114	MARQUETTE BOARD OF LIGHT & POWER	Marquette, MI	18	1
115	CENTRAL IOWA POWER COOPERATIVE (CIPCO)	Cedar Rapids, IA	14	1
116	CITY OF INDEPENDENCE	Independence, MO	14	1
117	KEYSPAN ENERGY	Hicksville, NY	14	1
118	MICHIGAN SOUTH CENTRAL POWER AGENCY	Litchfield, MI	13	1
119	CENTRAL ELECTRIC POWER COOPERATIVE	Jefferson City, MO	13	1
120	USIBELLI COAL MINE	Fairbanks, AK	13	1
121	MANITOWOC PUBLIC UTILITIES	Manitowoc, WI	11	1
122	U.S. DEPARTMENT OF ENERGY	n/a	11	1
123	MGE ENERGY	Madison, WI	10	1
123	SCHUYLKILL ENERGY RESOURCES	Shenandoah, PA	10	1
123	CITY OF ROCHESTER, MN	Rochester, MN	10	1
126	CEDAR FALLS UTILITIES	Cedar Falls, IA	9	1
127	AUSTIN UTILITIES	Austin, MN	9	1
128	EL PASO CORP	Houston, TX	8	1
129	WYANDOTTE DEPARTMENT OF MUNICIPAL SERVICES	Wyandotte, MI	8	1
130	HOLLAND BOARD OF PUBLIC WORKS	Holland, MI	8	1
131	GRAND HAVEN BOARD OF LIGHT & POWER	Grand Haven, MI	8	1
132	EBENSBURG POWER CO	Ebensburg, PA	7	1
133	HIBBING PUBLIC UTILITIES COMMISSION	Hibbing, MN	7	1
134	GREEN POWER LLC	Kenansville, NC	7	1
135	HOLYOKE WATER POWER CO	Holyoke, MA	6	1
136	TAUNTON MUNICIPAL LIGHTING PLANT	Taunton, MA	6	1
136	TONDU CORPORATION	Houston, TX	6	1
138	TRIGEN ENERGY CORP	White Plains, NY	5	2
139	MEADWESTVACO CORP	Stamford, CT	4	1
140	CITY OF HAMILTON	Hamilton, OH	3	1
141	CITY OF COLUMBIA, MO	Columbia, MO	3	1
142	UNITED AMERICAN ENERGY CORP		2	1
143	KANSAS CITY BOARD OF PUBLIC UTILITIES	Kansas City, KS	1	2
144	AMERICAN CONSUMER INDUSTRIES INC	Wilmington, DE	0.8	1
145	HASTINGS UTILITIES	Hastings, NE	0.8	1
146	FOSTER WHEELER	Clinton, NJ	0.6	1
147	MORA-SAN MIGUEL ELECTRIC CO-OP	Mora, NM	0.3	1
148	BLACK RIVER POWER LLC	Fort Drum, NY	0.2	1
149	BIRCHWOOD POWER PARTNERS LLC	King George, VA	0.1	1
150	SOYLAND POWER COOPERATIVE INC	Illinois	0.1	1
151	AIR PRODUCTS & CHEMICALS INC	Allentown, PA	0.00003	1

\* This may not reflect changes in ownership since 2003, the year for which facilities are reporting.

## **End Notes**

<sup>1</sup> U.S. Environmental Protection Agency (EPA), *Mercury Study Report to Congress*, December 1997, vol. 1, pp. 2-5 & 2-6 (hereinafter *Mercury Study Report to Congress*).

<sup>2</sup> Emily Figdor, U.S. PIRG Education Fund, Reel Danger: Power Plant Mercury Pollution and the Fish We Eat, August 2004, 4 (analyzing U.S. EPA's 1999 National Emissions Inventory for Hazardous Air Pollutants as cited in Northeast States for Coordinated Air Use Management, Mercury Emissions for Coal-Fired Power Plants: The Case for Regulatory Action, October 2003), available at <u>http://www.uspirg.org/reports/ReelDanger7\_04.pdf</u>. <sup>3</sup> Mercury Study Report to Congress, Vol. 3, p. 5-1. See also EPA, Office of Air and Radiation, Mercury White Paper, p.1 (hereinafter "Mercury White Paper"), available at

http://www.epa.gov/ttn/oarpg/t3/memoranda/whtpaper.pdf.

<sup>4</sup> EPA, Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units—Final Report to Congress, February 1998, Vol. 1, p. 7-28 (hereinafter Utility HAP Study) ("Long-range transport modeling conducted as part of this Utility Study predicts that approximately 30 percent (i.e., 15 tpy [tons per year]) of the utility mercury emissions deposit in the continental United States"). See also Mercury Study Report to Congress, Vol. 3, pp. 5-1 & 5-2.

<sup>5</sup> EPA Mercury Study Report to Congress, Vol. 1, pp. 3-15 – 3-17. See also Mercury White Paper, p.1.

<sup>6</sup> Douglas Rae and Laura Graham, EPA Office of Wetlands, Oceans, and Watersheds, *Benefits of Reducing Mercury in Saltwater Ecosystems: A Case Study*, January 2004, p. 17, available at

http://cleanairnow.org/cleanairnow.asp?id2=18509 (hereinafter EPA Water Office Study).

<sup>7</sup> Environmental Defense, Out of Control and Close to Home: Mercury Pollution from Power Plants, 2003, p.5.

<sup>8</sup> J.G. Weiner et al, "Partitioning and Bioavailability of Mercury in an Experimentally Acidified Wisconsin Lake," *Environmental Toxicology and Chemistry*, 9:909-918, 1990.

<sup>9</sup> EPA, "Mercury Update: Impact on Fish Advisories" (fact sheet), June 2001 (hereinafter "Mercury Update: Impact on Fish Advisories"), available at <u>http://www.epa.gov/ost/fishadvice/mercupd.pdf</u>.

<sup>10</sup> "Mercury Update: Impact on Fish Advisories."

<sup>11</sup> Mercury Study Report to Congress, vol. 1, p. O-2.

<sup>12</sup> Mercury Study Report to Congress, vol. 6, p.2-3.

<sup>13</sup> Mercury Study Report to Congress, vol. 5, pp. ES-2, 2-1, 2-5, 2-9.

<sup>14</sup> National Academy of Sciences, National Research Council, *Toxicological Effects of Methylmercury* 

(Washington, D.C.: National Academy Press, 2000) (hereinafter "Toxicological Effects of Merthylmercury"); Mercury Study Report to Congress.

<sup>15</sup> Mercury Study Report to Congress.

<sup>16</sup> Toxicological Effects of Methylmercury; Mercury Study Report to Congress.

<sup>17</sup> 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, available at http://www.epa.gov/waterscience/fish/forum/2004/presentations/monday/mahaffey.pdf.

<sup>18</sup> Ellen K. Silbergeld, Department of Environmental Health Sciences and Epidemiology, Bloomberg School of Public Health, Johns Hopkins University, testimony presented at EPA hearing on the regulation of utility mercury emissions, Philadelphia, 25 February 2004; Edna M. Yokoo et al., "Low Level Methylmercury Exposure Affects Neuropsychological Function in Adults," *Environmental Health*, 2(8), June 2003.

<sup>19</sup> Toxicological Effects of Methylmercury.

<sup>20</sup> Eliseo Guallar et al., "Mercury, Fish Oils, and the Risk of Myocardial Infarction," *New England Journal of Medicine*, 347(22): 1747-1754, 28 November 2002.

<sup>21</sup> Zachary Corrigan, U.S. PIRG Education Fund, *Fishing for Trouble*, October 2004 (hereinafter "*Fishing for Trouble*") (analyzing all active fish consumption advisories issued by states in 2003 for local waterways due to mercury contamination and finding 44 states with such advisories), p.4.

<sup>22</sup> Fishing for Trouble, p.4 (finding 21 states in 2003 with statewide advisories for their inland lakes and/or rivers.) Since Fishing for Trouble was issued, another state—West Virginia—has issued a statewide mercuryrelated fish consumption advisory, bringing the total to 22 states. Brian Farkas, "Statewide Fish Consumption Advisory Issued for Mercury," Associated Press Newswires, 13 December 2004.

<sup>23</sup> EPA and U.S. Food and Drug Administration (FDA), What You Need to Know about Mercury Levels in Fish and Shellfish, 2004, available at <u>http://www.epa.gov/ost/fishadvice/advice.html</u>.

<sup>24</sup> Florida Department of Environmental Protection, "Integrating Atmospheric Mercury Deposition with Aquatic Cycling in South Florida: An Approach for Conducting Total Maximum Daily Load Analysis for an Atmospherically Derived Pollutant," November 2003.

<sup>25</sup> T.R. Hrabik and C.J. Watras, "Recent Declines in Mercury Concentration in a Freshwater Fishery: Isolating the Effects of De-Acidification and Decreased Atmospheric Mercury Deposition in Little Rock Lake," *The Science of the Total Environment*, 297: 229-237, 2002.

<sup>26</sup> EPA, Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants from Electric Utility Steam Generating Units and the Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units from the Section 112(c) List, 70 Fed. Reg. 15993, 29 March 2005 (hereinafter "Delisting Rule").

<sup>27</sup> Mercury is listed as a hazardous air pollutant under the Clean Air Act, § 112(b)(1).

<sup>28</sup> Clean Air Act § 112 (d).

<sup>29</sup> Clean Air Act § 112 (c)(9).

<sup>30</sup> Delisting Rule, 70 Fed. Reg. at 16025.

<sup>31</sup> Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units, 70 Fed. Reg. 28605, 18 May 2005 (hereinafter "Cap-and-Trade Rule"). The cap-and-trade rule, dubbed the "Clean Air Mercury Rule" by EPA, is also available at

<u>http://www.epa.gov/air/mercuryrule/pdfs/camr\_final\_preamble.pdf</u> (preamble) and <u>http://www.epa.gov/air/mercuryrule/pdfs/camr\_final\_regtext.pdf</u> (regulatory text).

<sup>32</sup> James E. McCarthy, Mercury Emissions from Electric Power Plants: An Analysis of EPA's Cap-and-Trade Regulations, 15 April 2005, CRS-6 (hereinafter "CRS Report").

<sup>33</sup> EPA, Office of Air Quality Planning and Standards, Regulatory Impact Analysis of the Clean Air Mercury Rule, March 2005, Table 7-3, p.7-5, available at <u>http://www.epa.gov/ttn/atw/utility/ria\_final.pdf</u>.
 <sup>34</sup> CRS Report, p.7 & n.24.

<sup>35</sup> In 2001, EPA indicated that a MACT standard would require national reductions in mercury emissions of 89%, 90%, or 98% by December 2007, assuming promulgation of final MACT regulations by December 2004. See EPA, Presentation to the Edison Electric Institute (hereinafter "EPA Presentation to EEI"), 18 September 2001, available at <u>http://cta.policy.net/epamercury/pdf</u>. The 48-ton figure is based on mercury emissions tests and comes from the EPA's 1999 Information Collection Request, available at

<u>http://www.epa.gov/ttn/atw/combust/utiltox/utoxpg.html#TECR</u>. EPA uses the 1999 dataset as "baseline emissions" against which future reductions are compared.

<sup>36</sup> Hubbard Brook Research Foundation, Mercury Science Briefing (presentation to the EPA), 23 June 2004. <sup>37</sup> Cap-and-Trade Rule, 70 Fed. Reg. at 28617 ("We have designed the CAIR and CAMR approach to take advantage of this so-called Hg [mercury] "co-benefit."... the Phase 1 Hg cap should be set at a level that reflects these co-benefits, and that additional controls designed specifically for Hg should not be required until after 2010."). See also *CRS Report*, CRS-9 ("Under EPA's cap-and-trade regulations, both the 2010 and 2018 mercury emission standards are set to maximize use of these co-benefits [of emission controls under the CAIR rule].").

<sup>38</sup> CRS Report, Summary & CRS-9. The source for the underlying EPA data is the Office of Air Quality Planning and Standards, Regulatory Impact Analysis of the Clean Air Mercury Rule, March 2005, Table 7-9, p.7-7, available at <u>http://www.epa.gov/ttn/atw/utility/ria\_final.pdf</u>.

<sup>39</sup> Of the court challenges, all of the delisting cases have been consolidated under *New Jersey v. EPA*, No. 05-1097 (D.C. Cir.) (orders filed 5 May 2005, 10 June 2005, and 29 June 2005), and all of the cap-and-trade cases have been consolidated under *New Jersey v. EPA*, No. 05-1162 (D.C. Cir.) (orders filed 9 July 2005 and 22 July 2005).

<sup>40</sup> Fourteen states—California, Connecticut, Delaware, Illinois, Maine, Massachusetts, Minnesota, New Hampshire, New Jersey, New Mexico, New York, Pennsylvania, Vermont, and Wisconsin—filed suit as plaintiffs against both the delisting and cap-and-trade rules. See New Jersey v. EPA, No. 05-1097 (D.C. Cir. (delisting rule; plaintiff states: NJ, CA, CT, ME, MA, NH, NM, NY, VT); Commonwealth of Pennsylvania, Department of Environmental Protection, No. 05-1104 (D.C. Cir.); State of Delaware v. EPA, No. 05-1116 (D.C. Cir.); State of Wisconsin v. EPA, No. 05-1097 (D.C. Cir.); State of Illinois v. EPA, No. 05-1116 (D.C. Cir.) (delisting rule); State of Minnesota v. EPA, No. 05-1176 (D.C. Cir.); State of New Jersey v. EPA, No. 05-1162 (D.C. Cir.) (cap-and-trade rule; plaintiff states: NJ, CA, CT, ME, MA, NH, NM, NY, PA, VT, WI); State of Minnesota v. EPA, No. 05-1175 (D.C. Cir.) (cap-and-trade rule); State of Illinois v. EPA, No. 05-1183 (D.C. Cir.) (cap-and-trade rule); State of Illinois v. EPA, No. 05-1189 (D.C. Cir.) (cap-and-trade rule). The State of Michigan subsequently moved to intervene in the cap-and-trade litigation. See Motion for Leave to Intervene

of the Michigan Department of Environmental Quality in case captioned Utility Air Regulatory Group v. U.S. EPA, No. 05-1275 (D.C. Cir.); Darren Samuelsohn, "Michigan Joins State-Driven Suit Against U.S. EPA Rule, Greenwire, 11 August 2005. Moreover, 14 states jointly petitioned the EPA for reconsideration of the delisting rule, and 15 states jointly petitioned EPA for reconsideration of the cap-and-trade rule. See In re Petition for Reconsideration, Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants from Electric Utility Steam Generating Units and the Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units from the Section 112(c) List, 70 Fed. Reg. 15994 (March 29, 2005), 31 May 2005 (delisting rule; petitioning states: NJ, CA, CT, DE, IL, ME, MA, NH, NM, NY, PA, RI, VT, WI); In re Petition for Reconsideration, Standards of Performance for New and Existing Stationary Sources; Electric Utility Steam Generating Units, 70 Fed. Reg. 28606 (May 18, 2005), 18 July 2005 (cap-and-trade rule; petitioning states: NJ, CA, CT, DE, IL, ME, MA, NH, NY, PA, RI, VT, WI).

<sup>41</sup> The groups include Environmental Defense, National Wildlife Federation, and Sierra Club, represented by Earthjustice; Natural Resources Council of Maine, Ohio Environmental Council, and U.S. Public Interest Research Group, represented by the Clean Air Task Force; Natural Resources Defense Council; and Chesapeake Bay Foundation, Conservation Law Foundation, and Waterkeeper Alliance. See *Chesapeake Bay Foundation, Inc. et al. v. EPA*, No. 05-1158 (D.C. Cir.) (delisting rule); *Environmental Defense et al. v. EPA*, No. 05-1159 (D.C. Cir.) (delisting rule); *Natural Resources Council of Maine et al. v. EPA*, No. 05-1160 (D.C. Cir.) (delisting rule); *Natural Resources Defense Council v. EPA*, No. 05-1158 (D.C. Cir.) (delisting rule); *Chesapeake Bay Foundation, Inc. v. EPA*, No. 05-1267 (D.C. Cir.); *Ohio Environmental Council v. U.S. EPA*, No. 05-1164 (D.C. Cir.) (cap-and-trade rule); *Natural Resources Defense Council v. EPA*, No. 05-1167 (D.C. Cir.) (cap-and-trade rule). See also "Clean Air, Public Health Advocates: EPA Mercury Rule Leaves Public Health at Risk, Violates Law" (press release), 17 May 2005, available at http://www.commondreams.org/cgi-

bin/newsprint.cgi?file=/news2005/0517-11.htm. Several of these groups—Natural Resources Defense Council, Clean Air Task Force, Ohio Environmental Council, U.S. Public Interest Research Group, and Natural Resources Council of Maine—also petitioned the EPA for reconsideration of both rules. See Petition for Reconsideration, In the Matter of the Final Rule: Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Electric Utility Steam Generating Units from the Section 12(c) List, OAR-2002-0056, 31 May 2005 (delisting rule); Petition for Reconsideration, In the Matter of the Final Rule: Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units, OAR-2002-0056, 18 July 2005 (cap-and-trade rule). <sup>42</sup> Four national public health groups moved to intervene in the litigation against the delisting rule on June 14, 2005. See Motion for Intervention by Physicians for Social Responsibility, the American Nurses Association, the American Public Health Association, and the American Academy of Pediatrics in case captioned Environmental Defense v. U.S. EPA, No. 05-1159 (D.C. Cir.). See also Christopher Martin, "Health Groups Join Suit Against U.S. EPA Over Mercury Emissions," Bloomberg News, 14 June 2005.

<sup>43</sup> Several Maine Indian tribes moved to intervene in the litigation against the delisting rule on June 16, 2005. See Motion of Maine Indian Tribes for Leave to Intervene in case captioned *Natural Resources Council of Maine* v. U.S. EPA, No. 05-1160 (D.C. Cir.). The tribes include the Aroostook Band of Micmac Indians, the Houlton Band of Maliseet Indians, the Penobscot Indian Nation, the Passamaquoddy Tribe at Pleasant Point (Sipayik), and the Passamaquoddy Tribe at Indian Township. The same tribes also petitioned EPA for reconsideration of the delisting rule along with several environmental groups. See Petition for Reconsideration, *In the Matter of the Final Rule: Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Electric Utility Steam Generating Units from the Section* 12(c) List, OAR-2002-0056, 31 May 2005.

<sup>44</sup> The City of Baltimore joined the litigation in June. See *Mayor & City Council of Baltimore v. EPA*, No. 05-1263 (D.C. Cir.). See also Tom Pelton, "Baltimore Enters Legal Fray on Mercury Pollution Rules: City Joining States' Action on EPA Limits, Mayor Says," *Baltimore Sun*, 7 June 2005.

<sup>45</sup> Clean Air Act § 112(n)(1)(A).

<sup>46</sup> Clean Air Act § 112(n)(1)(A).

<sup>47</sup> Clean Air Act § 112(n)(1)(B).

<sup>48</sup> Mercury Study Report to Congress.

<sup>49</sup> Utility HAP Study.

<sup>50</sup> CRS Report, CRS-5 & n.15; Felice Stadler, National Wildlife Federation, "Mercury and Power Plants: EPA's 14-Year Effort to Regulate" (timeline). The case resulting in the consent decree was *Natural Resources Defense Council, Inc. v. U.S. EPA*, No. 92-1415 (D.C. Cir.).

<sup>51</sup> EPA, Regulatory Finding on the Emissions of Hazardous Air Pollutants from Electric Utility Steam Generating Units, 62 Fed. Reg. 79825, 20 December 2000.

<sup>52</sup> EPA, "EPA Decides Mercury Emissions from Power Plants Must Be Reduced" (press release), 14 December 2000.

<sup>53</sup> EPA Presentation to EEI.

<sup>54</sup> Reducing annual mercury emissions of 48 tons by 89%, 90%, and 98% would result in approximately 5.3, 4.8, and 1.0 tons, respectively.

<sup>55</sup> 60 Fed. Reg. 65387, 19 December 1995 (municipal waste combusters); 62 Fed. Reg. 48348, 15 September 1997 (medical waste incinerators). See also CRS Report, CRS-3 & Table 1.

<sup>56</sup> 69 Fed. Reg. 4652, 30 January 2004; 69 Fed. Reg. 12398, 16 March 2004 (supplemental proposal).
<sup>57</sup> Eric Pianin, "Proposed Mercury Rules Bear Industry Mark," *Washington Post*, 31 January 2004; Darren Samuelsohn, "More Industry Materials Found Duplicated in EPA's Mercury Rule," *Greenwire*, 26 February 2004 (reporting that sections of EPA's proposed rule were taken verbatim from memos written by Latham & Watkins, a law firm representing large electric utilities, and West Associates, a group representing 20 power and transmission companies).

<sup>58</sup> See, e.g., Tom Hamburger and Alan C. Miller, "Mercury Emissions Rule Geared to Benefit Industry, Staffers Say," *Los Angeles Times*, 16 March 2004 (reporting that "[p]olitical appointees in the Environmental Protection Agency bypassed agency professional staff and a federal advisory panel last year to craft a rule on mercury emissions preferred by the industry and the White House, several longtime EPA officials say. The EPA staffers say they were told not to undertake the normal scientific and economic studies called for under a standing executive order."); Jennifer Lee, "White House Minimized the Risks of Mercury in Proposed Rules, Scientists Say," *New York Times*, 7 April 2004 (reporting that White House officials scrubbed language in the proposal to downplay the scientific evidence regarding the hazards of mercury pollution).

<sup>59</sup> Children's Health Protection Advisory Committee letter to EPA Administrator Michael Leavitt, 26 January 2004, downloaded from <u>http://yosemite.epa.gov/ochp/ochpweb.nsf/content/20040126/\$file/20040126.pdf</u>, 5 July 2004.

<sup>60</sup> Statement of Emily Figdor, Clean Air Advocate, U.S. PIRG, "Protect Children's Health: Stop Mercury Pollution," 30 June 2004, available at <u>www.uspirg.org</u>.

<sup>61</sup> Letter from national sportsmens' groups, 29 June 2004, available at:

<u>http://cleanairnow.org/cleanairnow.asp?id2=18165&id3=cleanairnow&;</u> letter from 475 hunting and fishing groups to EPA Administrator Mike Leavitt, 22 June 2004, available at

http://cleanairnow.org/cleanairnow.asp?id2=18509.

<sup>62</sup> Letter from 650 small businesses and medical professionals from 48 states and the District of Columbia to members of Congress, undated, signed in 2004, available from author and U.S. PIRG; Consensus Statement on Methylmercury and Public Health, 16 March 2004, available at:

http://cleanairnow.org/cleanairnow.asp?id2=18509.

<sup>63</sup> Letter from faith organizations (National Council of Churches and 10 other faith groups) to President Bush,
 16 March 2004, available at <a href="http://cleanairnow.org/cleanairnow.asp?id2=18509">http://cleanairnow.org/cleanairnow.asp?id2=18509</a>.

<sup>64</sup> Letter from national environmental, science, and public health groups, 24 April 2004, available at <u>http://cleanairnow.org/cleanairnow.asp?id2=18509</u>; letter from 550 state and local environmental, educational, health, children's, and other groups, 29 April 2004, available at

http://cleanairnow.org/cleanairnow.asp?id2=18509.

<sup>65</sup> Letter from 45 U.S. Senators to EPA Administrator Mike Leavitt, 1 April 2004, available at: <u>http://cleanairnow.org/cleanairnow.asp?id2=18509</u>.

<sup>66</sup> Letter from 184 U.S. Representatives to EPA Administrator Mike Leavitt, 23 June 2004, available at <u>http://cleanairnow.org/cleanairnow.asp?id2=18509</u>.

<sup>67</sup> Letter from Attorneys General and Chief Environmental Enforcement Officers for the States of New Hampshire, Connecticut, Delaware, Maine, Massachusetts, New Mexico, New York, New Jersey, Pennsylvania, and Vermont to EPA Administrator Mike Leavitt, Request for Withdrawal of EPA's mercury proposal, 1 April 2004; Comments of 11 states (NJ, CA, CT, ME, MA, NH, NM, NY, PA, VT, and WI) on EPA's mercury proposal, 28 June 2004, available at <a href="http://ag.ca.gov/newsalerts/2004/04-068.pdf">http://ag.ca.gov/newsalerts/2004/04-068.pdf</a>, downloaded 10 August 2005. <sup>68</sup> EPA, Office of Inspector General, *Evaluation Report: Additional Analyses of Mercury Emissions Needed Before* 

*EPA Finalizes Rules for Coal-Fired Electric Utilities*, Report No. 2005-P-00003, 3 February 2005 (finding, among other things, that "[e]vidence indicates that EPA senior management instructed EPA staff to develop a Maximum Achievable Control technology (MACT) standard for mercury that would result in national emissions

of 34 tons annually, instead of basing the standard on an unbiased determination of what the top performing units were achieving in practice").

<sup>69</sup> U.S. Government Accountability Office (GAO), Clean Air Act: Observations on EPA's Cost-Benefit Analysis of Its Mercury Control Options, GAO-05-252, February 2005.

<sup>70</sup> Water Office Study, supra note 6.

<sup>11</sup> Study prepared for NESCAUM by Glenn Rice and James K. Hammitt, Harvard Center for Risk Analysis, Economic Valuation of Human Health Benefits of Controlling Mercury Emission from U.S. Coal-Fired Power Plants, February 2005, available at: <u>http://cleanairnow.org/cleanairnow.asp?id2=18509</u> (hereinafter Harvard Study).

<sup>72</sup> See, e.g., Shankar Vedantam, "EPA Deleted Conflicting Finding in Mercury Rules: Analysis Estimated Greater Health Benefits from Stricter Controls," *Washington Post*, 22 March 2005 (hereinafter "EPA Deleted Conflicting Finding"); "EPA Ignores Own Water Office Study," *Associated Press*, 28 April 2005 (hereinafter "EPA Ignores Own Water Office Study").

<sup>73</sup> EPA, "The Toxics Release Inventory (TRI) and Factors to Consider When Using TRI Data," pp. 3, 12, available at: <u>http://www.epa.gov/tri/2002\_tri\_brochure.pdf</u>.

<sup>74</sup> See, e.g., Evers, David C., Biodiversity Research Institute, *Mercury Connections: The Extent and Effects of Mercury Pollution in Northeastern North America*, 2005, p.5 (noting that "The northeastern U.S. and eastern Canada receive mercury from local, regional, and global emissions. However, most estimates show that U.S. emissions constitute the largest source of mercury that is deposited to the Northeast (approximately 60% percent)" and also identifying power plants as a "major source[] of airborne mercury" in the U.S.). Mercury *Connections* summarizes the major findings reported in 21 papers published in "Biogeographical Patterns of Environmental Mercury in Northeastern North America," *Ecotoxicology*, 14:1-2, 2005.

<sup>75</sup> *Fishing for Trouble*, App. B (analyzing all active fish consumption advisories issued by states in 2003 for local waterways due to mercury contamination and finding 44 states with such advisories).

<sup>76</sup> As discussed in the text and footnote b, TRI's exclusion of waste incinerators and facilities under the 10pound reporting threshold may materially affect calculations of power plant mercury emissions as a percentage of all sources of mercury emissions. See also James E. McCarthy, Congressional Research Service, *Mercury Emissions from Electric Power Plants: An Analysis of EPA's Cap-and-Trade Regulations*, 15 Apr. 2005, CRS-4, n.12 ("The TRI database somewhat overstates the utility share of the total because it excludes waste incineration and all sources that emit less than 10 pounds of mercury.")

<sup>77</sup> See the Southern Company website, "Facts & Figures" section of "About SO," available at: http://southernco.mondosearch.com/cgi-

<u>bin/MsmGo.exe?grab\_id=111&EXTRA\_ARG=&host\_id=42&page\_id=16515584&query=mercury&hiword=m</u> <u>ercury</u>+ (stating that "Southern Company is among the leaders in the utility industry in research and technology development in addressing environmental concerns through such efforts as advanced coal research, mercury control technology and alternative energy development").

<sup>78</sup> Center for Public Integrity, LobbyWatch, accessed data 8 August 2005, available at: <u>http://www.publicintegrity.org/lobby/profile-pf.aspx?act=issues&vear=2003&is=UTI</u>.

<sup>79</sup> Center for Public Integrity, LobbyWatch, accessed data 18 August 2005, available at

http://www.publicintegrity.org/lobby/profile.aspx?act=clients&year=2003&cl=L002762. Figures based on Senate Office of Public Records filings last updated June 2005.

<sup>80</sup> Center for Public Integrity, LobbyWatch, accessed data 8 August 2005, available at:

 $\label{eq:http://www.publicintegrity.org/lobby/profile.aspx?act=clients & year=2003 & cl=L002762. \\$ 

<sup>81</sup> See the mid-year (pp. 6-7) and year-end (pp. 3-4) lobbying reports filed by Southern Company for 2004,

available at the U.S. Senate Office of Public Records at: <u>http://sopr.senate.gov/cgi-</u> win/opr\_gifviewer.exe?/2004/01/000/870/000870945 | 7 and http://sopr.senate.gov/cgi-

win/opr gifviewer.exe?/2005/01/000/151/000151978 4.

<sup>82</sup> Total contributions obtained from the Center for Responsive Politics, "Electric Utilities: Top Contributors to Federal Candidates and Parties," accessed 18 August 2005 at

http://www.opensecrets.org/industries/contrib.asp?Ind=E08&Cvcle=2004 (2004 election cvcle),

http://www.opensecrets.org/industries/contrib.asp?Ind=E08&Cycle=2002 (2002 election cycle), and

<u>http://www.opensecrets.org/industries/contrib.asp?Ind=E08&Cycle=2000</u> (2000 election cycle). (Numbers are based on contributions from PACs, soft money donors, and individuals giving \$200 or more. In many cases, the organizations themselves did not donate; rather, the money came from the organization's PAC, its individual members or employees or owners, and those individuals' immediate families. Organization totals include subsidiaries and affiliates.) Data on PAC contributions to President Bush obtained from the Center for

Responsive Politics, accessed 8 August 2005 at

http://www.opensecrets.org/pacs/lookup2.asp?strid=C00144774&cycle=2000 (2000 election cycle) and http://www.opensecrets.org/pacs/lookup2.asp?strid=C00144774&cycle=2004 (2004 election cycle). <sup>83</sup> EPA, "EPA to Regulate Mercury and Other Air Toxics Emissions from Coal- and Oil-Fired Power Plants" (fact sheet), 14 December 2000.

<sup>84</sup> See, e.g., 69 Fed. Reg. 4651, 4698 (mercury proposal, section IV.D.2), 30 January, 2004 (claiming that mercury control technologies "have not been adequately demonstrated," that the agency lacks information to conclude such technologies will be adequately demonstrated by 2010, and that requiring additional controls beyond those needed to meet CAIR "is not reasonable because the incremental cost of such a requirement for additional Hg reductions would be extremely high and the capacity of the equipment suppliers may be overwhelmed"). See also Cap-and-Trade Rule, 70 Fed. Reg. at 28606, 28614, and Rule Preamble, 15 March 2005, pp. 45-46, 63, 67 (reiterating conclusion in mercury proposal that mercury-specific controls "will not be commercially available on a wide scale until 2010 or later" and stating "[a]lthough we do believe that these technologies have been currently demonstrated to be capable of achieving significant reductions in Hg [mercury] emissions, we do not believe that they are available now for wide-spread or long-term usage"; reiterating conclusion in mercury proposal that requiring further controls beyond CAIR is not cost-effective and that a cap-and-trade system is the most cost-effective method to achieve emissions reductions), available at http://www.epa.gov/air/mercuryrule/pdfs/camr\_final\_preamble.pdf.

<sup>85</sup> CRS Report, CRS-13.

<sup>86</sup> National Wildlife Federation, *Getting the Job Done: Affordable Mercury Control at Coal-Burning Power Plants*, October 2004, p.16; National Wildlife Federation, "Controlling Mercury from Power Plants: Current State of Technology" (fact sheet), January 2005, p.3.

<sup>87</sup> CRS Report, CRS-13, quoting Michael Durham et al., "Full-Scale Results of Mercury Control by Injecting Activated Carbon Upstream of ESPs and Fabric Filters," paper presented at PowerGen 2003, Las Vegas, NV, 9-11 December 2003, p.9.

<sup>88</sup> CRS Report,, CRS-13, citing EPA, Office of Research and Development, "Control of Mercury Emissions from Coal-Fired Electric Utility Boilers" (white paper), 2 March 2004, available at

http://www.epa.gov/ttn/atw/utility/hgwhitepaperfinal.pdf.

<sup>89</sup> National Wildlife Federation, *Getting the Job Done: Affordable Mercury Control at Coal-Burning Power Plants*, October 2004, p.6; National Wildlife Federation, "Controlling Mercury from Power Plants: Current State of Technology" (fact sheet), January 2005, pp.16-18 & Table 6. See also Government Accountability Office, *Emerging Mercury Control Technologies Have Shown Promising Results, but Data on Long-Term Performance Are Limited*, May 2005, p.8 (stating that "a number of mercury control technologies have been developed over the past several years as a result of public and private investments in research and development," including sorbent technologies, enhancements to existing controls for other pollutants, multipollutant controls, oxidation technologies, and other technologies).

<sup>90</sup> ADA-ES, "ADA-ES Awarded Contract to Provide Mercury Control System for New Power Plant" (press release), 2 August 2005; Daniel Cusick, "Mercury Control Technology to Be Installed at Commercial Scale," *Greenwire*, 2 August 2005.

<sup>91</sup> Clair Johnson, "Hardin Plant Foes, Backer Reach Pact," *Billings Gazette*, 4 May 2005, available at: <u>http://www.billingsgazette.com/index.php?display=rednews/2005/05/04/build/state/40-plant.inc</u>.

<sup>92</sup> Grand Canyon Trust and Sierra Club, "San Juan Power Plant to Cut Air Pollution" (press release), 10 March 2005, available at <u>http://www.sierraclub.org/environmentallaw/lawsuits/viewCase.asp?id=249</u>.

<sup>93</sup> Government Accountability Office, Emerging Mercury Control Technologies Have Shown Promising Results, but Data on Long-term Performance Are Limited, May 2005, p.18.

<sup>94</sup> National Wildlife Federation, *Getting the Job Done: Affordable Mercury Control at Coal-Burning Power Plants*, October 2004, pp. 5-6.

<sup>95</sup> <u>Id.</u> at pp. 21 & A-19.

<sup>96</sup> Id. at pp. A-19 & A-29.

<sup>97</sup> Cap-and-Trade Rule, 70 Fed. Reg. at 28639, 28642 (projecting annual costs to power industry of \$160 million in 2010, \$100 million in 2015, and \$750 million in 2020 while monetizing social benefits from reducing mercury exposure from freshwater fishing at no more than \$3 million and stating that EPA did not quantify other types of benefits). See also "EPA Ignores Own Water Office Study," (reporting that "[1]ast month, the EPA publicly estimated the annual benefits to the country of the cleanup program at \$50 million a year. The agency said the cost to utilities and electricity users would increase annually to \$750 million a year by 2020."). 98 Leonardo Trasande, Philip J. Landrigan, and Clyde Schechter, "Public Health and Economic Consequences of methyl Mercury Toxicity to the Developing Brain," Environmental Health Perspectives 113(5): 590, Mar 2005. <sup>99</sup> Harvard Study, Executive Summary pp. xviii-xix.

<sup>100</sup> Harvard Study, Executive Summary pp. xviii-xix. Specifically, the study estimated the annual benefit associated with IQ increases at \$75-194 million at the 26-ton level and \$119-288 million at the 15-ton level, whereas it estimated the annual benefit associated with avoided cardiovascular events and premature mortality at \$48 million to \$3.3 billion at the 26-ton level and \$86 million to \$\$4.9 billion at the 15-ton level. Id. <sup>101</sup> Water Office Study, Executive Summary p. ES-1.

102 "EPA Deleted Conflicting Finding" (reporting that "[w]hen the Environmental Protection Agency unveiled a rule last week to limit mercury emissions from U.S. power plants, officials emphasized that the controls could not be more aggressive because the cost to industry already far exceeded the public health payoff. What they did not reveal is that a Harvard University study paid for by the EPA, co-authored by an EPA scientist and peer-reviewed by two other EPA scientists had reached the opposite conclusion. That analysis estimated health benefits 100 times as great as the EPA did, but top agency officials ordered the finding stripped from public documents, a staff member who helped develop the rule told The Washington Post. Acknowledging the Harvard study would have forced the agency to consider more stringent controls, environmentalists and the study's author said."); "EPA Ignores Own Water Office Study," (reporting that "[t]he Environmental Protection Agency estimated in an internal report as much as \$2 billion in yearly benefits from cutting mercury pollution just in the Southeast 40 times the value the agency projected publicly for the entire nation" and that the study dates to January 2004, 14 months before EPA released its mercury rules).

<sup>103</sup> Bradley M. Campbell, Commissioner, New Jersey Department of Environmental Protection, testimony before the U.S. Senate Democratic Policy Committee, July 9, 2004.

<sup>104</sup> Connecticut Public Act No. 03-72, available at http://www.cga.ct.gov/2003/act/Pa/2003PA-00072-R00HB-06048-PA.htm.

<sup>105</sup> Massachusetts Emissions Standards for Power Plants, 310 CMR 7.29, available at

http://www.mass.gov/dep/bwp/dagc/files/regs/hgreg.pdf. See also Massachusetts Department of Environmental Protection, "Mercury Emission Limits for Coal-Fired Power Plants" (fact sheet), May 2004.

<sup>106</sup> N.J.A.C. 7:27, available at http://www.nj.gov/dep/rules/adoptions/mercury\_rule7-27.pdf. See also New Jersey Department of Environmental Protection, "DEP Adopts New Mercury, Arsenic Standards: New Rules Are Strictest in Nation" (press release), 4 November 2004.

<sup>107</sup> Bradley M. Campbell, Commissioner, New Jersey Department of Environmental Protection, testimony before the U.S. Senate Democratic Policy Committee, July 9, 2004.

<sup>108</sup> Wisconsin Administrative Code, Ch. NR 466 ("Control of Mercury Emissions"), in Wisconsin Register, No. 585, September 2004, pp. 475 - 478-4, available at http://www.dnr.state.wi.us/org/aw/air/reg/mercury/nr446.pdf. See also Wisconsin Department of Natural Resources, Bureau of Air Management, "Wisconsin Regulations for Controlling Mercury Emissions from Electric Utilities" (fact sheet), February 2005, available at

http://www.dnr.state.wi.us/org/aw/air/reg/mercury/AM3612005.pdf; Wisconsin Natural Resources Board, Order AM 27-01, 14 July 2004 (authorizing statutes §§ 227.11(2)(a) and 285.11(9), available at

http://dnr.wi.gov/org/aw/air/reg/mercury/AM-27-01signed.pdf.

<sup>109</sup> Wisconsin Department of Natural Resources, Bureau of Air Management, "Wisconsin Regulations for Controlling Mercury Emissions from Electric Utilities" (fact sheet), February 2005, available at http://www.dnr.state.wi.us/org/aw/air/reg/mercury/AM3612005.pdf ("Wisconsin's mercury rule contains language requiring the DNR to adopt a federal mercury emissions control rule when one is issued. After the federal rule is issued, the DNR would have 18 months to revise its state rule to mirror federal requirements.")

<sup>110</sup> National Wildlife Federation, PIRGIM, Michigan United Conservation Club, and Michigan Environmental Council, "Workgroup Report Says Mercury Reductions Feasible, Necessary" (press release), 20 June 2005. <sup>111</sup> "Pa. To Seek More Stringent Standards Than EPA Rule," Greenwire, 17 August 2005.

<sup>112</sup> Available at http://www.epa.gov/tri/tridata/tri03/data/US 4 2003 v03.exe.