

July 2011

Toxic Power

How Power Plants Contaminate Our Air and States



Introduction

The electric sector is the largest source of industrial (stack) emissions of toxic air pollution in the United States. In 2009, coal- and oil-fired power plants accounted for nearly 50 percent of all reported toxic pollution from industrial sources. The next largest sector, chemical processing and manufacturing, emitted less than one third of the electric sector's total. Power plants are the leading source of industrial toxic air pollution in 28 states and the District of Columbia.

Exposure to toxic pollution from power plants, including hydrochloric acid, mercury, and other metals, is known or believed to contribute to or exacerbate a wide variety of health conditions, including one or more of the following:

- ▶ Asthma and other respiratory ailments,
- ▶ Developmental disorders,
- ▶ Neurological damage,
- ▶ Birth defects,
- ▶ Cancer, and
- ▶ Premature mortality.

This report analyzes publicly available data from Environmental Protection Agency's Toxics Release Inventory (TRI). Facilities that release significant quantities of a wide variety of toxic chemicals must report these releases, including industrial air emissions, to TRI annually. These self-reported data reveal that power plants are largely responsible for contaminating our air with toxic chemicals.



The Toxic Twenty

Power plants are the leading sources of toxic air pollution in all but four of the top 20 states by electric sector emissions.

| State | Electric Sector Rank by In-State Toxic Air Pollution | Total Industrial Toxic Air Pollution (lbs) | Electric Sector Toxic Air Pollution (lbs) | Electric Sector Contribution to State Toxic Air Pollution (%) | Status of State Mercury Regulations |
|-----------------------|--|--|---|---|-------------------------------------|
| Ohio | 1 | 68,863,474 | 44,545,704 | 65% | |
| Pennsylvania | 1 | 50,527,280 | 41,459,532 | 82% | |
| Florida | 1 | 49,039,948 | 33,442,431 | 68% | |
| Kentucky | 1 | 41,340,348 | 31,947,066 | 77% | |
| Maryland | 1 | 29,887,235 | 27,092,233 | 91% | ● |
| Indiana | 1 | 39,634,894 | 26,798,135 | 68% | |
| Michigan | 1 | 31,276,291 | 22,731,782 | 73% | ● |
| West Virginia | 1 | 25,493,261 | 21,486,688 | 84% | |
| Georgia | 1 | 41,902,848 | 18,246,617 | 44% | ● |
| North Carolina | 1 | 30,296,011 | 14,907,994 | 49% | ● |
| South Carolina | 1 | 26,774,040 | 11,453,391 | 43% | ● |
| Alabama | 2 | 28,573,077 | 11,418,246 | 40% | |
| Texas | 2 | 39,442,151 | 10,155,177 | 26% | |
| Virginia | 1 | 25,205,367 | 9,649,281 | 38% | |
| Tennessee | 1 | 25,070,569 | 8,864,747 | 35% | |
| Missouri | 1 | 12,011,626 | 6,360,329 | 53% | |
| Illinois | 1 | 23,917,015 | 5,583,222 | 23% | ● |
| Wisconsin | 2 | 12,810,181 | 3,451,772 | 27% | ● |
| New Hampshire | 1 | 2,633,143 | 2,519,676 | 96% | ● |
| Iowa | 4 | 15,370,670 | 2,486,771 | 16% | |
| Toxic 20 Total | 1 | 620,069,428 | 354,600,794 | 57% | |
| U.S. Total | 1 | 771,580,707 | 381,740,601 | 49% | |

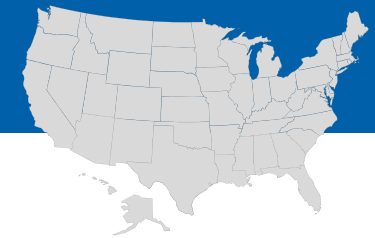
- State has electric sector mercury regulations that are **at least as** stringent as EPA's proposed utility air toxics rule.
- State has electric sector mercury regulation that are **less** stringent than EPA's proposed utility air toxics rule.



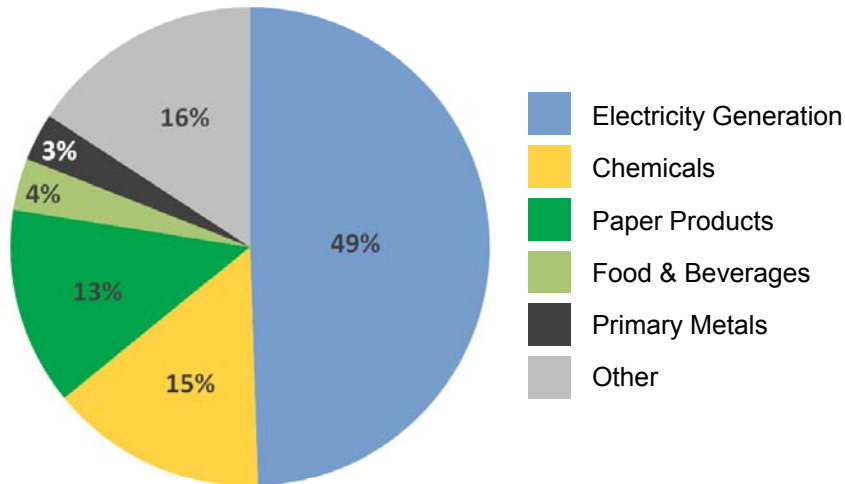
Note: A table summarizing the emissions from all states is available in the appendix.

Sources: EPA's Toxic Release Inventory (2009 data), accessed June 2011; State environmental departments.

Toxic Industrial Air Pollution in the U.S.



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of National Air Pollution |
|------------------------|---------------------------|-----------------------------|
| Electricity Generation | 381,740,601 | 49% |
| Chemicals | 112,870,057 | 15% |
| Paper Products | 103,249,010 | 13% |
| Food & Beverages | 26,908,977 | 3% |
| Primary Metals | 24,923,246 | 3% |
| Other | 121,888,815 | 16% |
| Total | 771,580,707 | 100% |

U.S. Electric Sector Key Facts

Toxic Air Pollution

The U.S. electric sector was responsible for **49%** of all industrial toxic air pollution in 2009, emitting nearly **382 million pounds**.

Mercury Pollution

Electricity generation in the U.S. accounted for about **75%** of all mercury air pollution, emitting nearly **71,000 pounds** in 2009.

Top Power Plant Polluters

| Plant Name | Owner(s) | State | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|-----------------|---|-------|---------------------------|---------|---------------------------|
| | | | All Toxics | Mercury | |
| Keystone | PSEG, Constellation, Exelon, GenOn & Others | PA | 15,436,496 | 795 | ● |
| Brandon Shores | Constellation | MD | 13,109,753 | 280 | ● |
| Crist | Southern | FL | 9,804,196 | 298 | ● |
| Monroe | DTE Energy | MI | 9,691,081 | 848 | ● |
| Crystal River | Progress Energy & Others | FL | 9,449,158 | 360 | ● |
| Paradise | Tennessee Valley Authority | KY | 7,713,713 | 170 | |
| Muskingum River | AEP | OH | 7,421,075 | 322 | |
| Morgantown | GenOn | MD | 7,067,197 | 220 | ● |
| John E Amos | AEP | WV | 6,675,594 | 526 | ● |
| Harlee Branch | Southern | GA | 6,155,089 | 266 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



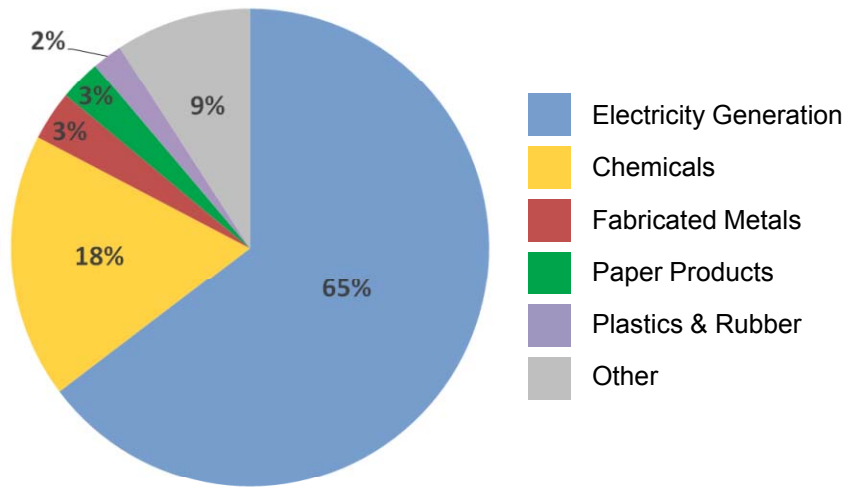
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Ohio



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 44,545,704 | 65% |
| Chemicals | 12,358,212 | 18% |
| Fabricated Metals | 2,316,089 | 3% |
| Paper Products | 1,918,613 | 3% |
| Plastics & Rubber | 1,402,363 | 2% |
| Other | 6,322,492 | 9% |
| Total | 68,863,474 | 100% |

Ohio Key Facts

Toxic Air Pollution

Ohio's electric sector ranked **FIRST** in toxic air pollution in 2009, emitting more than **44.5 million pounds** of harmful chemicals, which accounted for **65%** of state pollution and **12%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Ohio ranked **THIRD** among all states in mercury air pollution from power plants with about **3,980 pounds** emitted in 2009, which accounted for **76%** of state mercury air pollution and **6%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|-------------------|--------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Muskingum River | AEP | 7,421,075 | 322 | |
| W H Sammis | FirstEnergy | 5,857,756 | 364 | ● |
| J M Stuart | Duke, DPL, AEP | 4,566,050 | 94 | |
| Cardinal | Buckeye Power, AEP | 4,290,199 | 407 | ● |
| Walter C Beckjord | Duke, DPL & Others | 4,261,996 | 252 | |
| Eastlake | FirstEnergy | 2,997,532 | 268 | |
| Miami Fort | Duke, DPL | 2,800,979 | 128 | |
| Kyger Creek | AEP & Others | 2,789,782 | 326 | ● |
| Avon Lake | GenOn | 2,136,335 | 261 | |
| W H Zimmer | Duke, DPL, AEP | 1,445,893 | 94 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



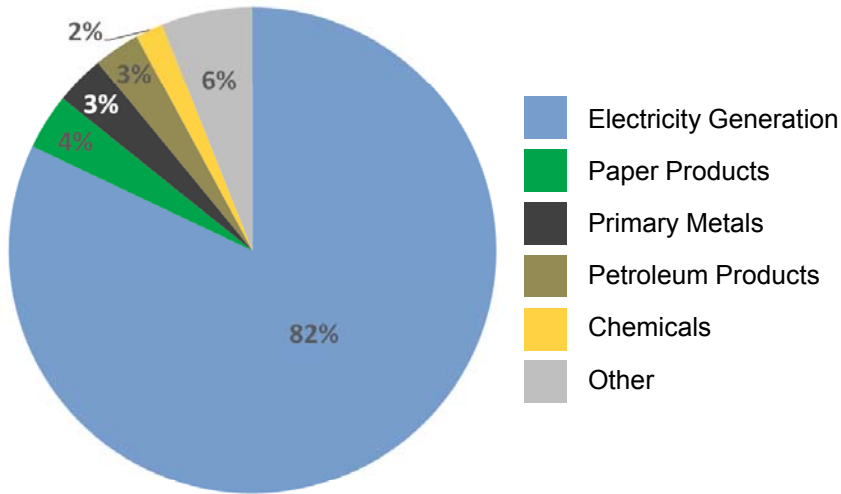
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Pennsylvania



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 41,459,532 | 82% |
| Paper Products | 1,881,608 | 4% |
| Primary Metals | 1,670,608 | 3% |
| Petroleum Products | 1,541,012 | 3% |
| Chemicals | 923,795 | 2% |
| Other | 3,050,725 | 6% |
| Total | 50,527,280 | 100% |

Pennsylvania Key Facts

Toxic Air Pollution

Pennsylvania's electric sector ranked **SECOND** in toxic air pollution in 2009, emitting nearly **41.5 million pounds** of harmful chemicals, which accounted for **82%** of state pollution and **11%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Pennsylvania ranked **SECOND** among all states in mercury air pollution from power plants with over **4,500 pounds** emitted in 2009, which accounted for **71%** of state mercury air pollution and **6%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|----------------------|---|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Keystone | PSEG, Constellation, Exelon, GenOn & Others | 15,436,496 | 795 | ● |
| Homer City Station | Edison International | 6,027,737 | 526 | |
| Hatfields Ferry | FirstEnergy | 3,402,293 | 505 | ● |
| Portland | GenOn | 3,020,978 | 178 | |
| PPL Brunner Island | PPL | 2,484,839 | 265 | ● |
| Cheswick Power Plant | GenOn | 2,381,170 | 138 | ● |
| Shawville | GenOn | 2,135,910 | 540 | |
| Titus | GenOn | 1,178,319 | 29 | |
| Sunbury Generation | Corona Power | 861,711 | 50 | |
| Conemaugh | PSEG, Exelon, GenOn & Others | 724,389 | 569 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



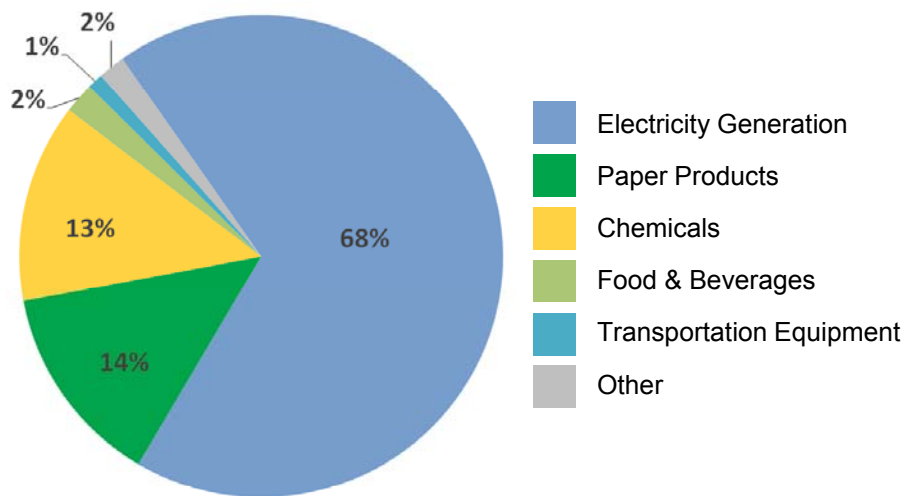
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Florida



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|--------------------------|---------------------------|--------------------------------|
| Electricity Generation | 33,442,431 | 68% |
| Paper Products | 6,658,129 | 14% |
| Chemicals | 6,543,518 | 13% |
| Food & Beverages | 1,001,721 | 2% |
| Transportation Equipment | 519,583 | 1% |
| Other | 874,565 | 2% |
| Total | 49,039,948 | 100% |

Florida Key Facts

Toxic Air Pollution

Florida's electric sector ranked **THIRD** in toxic air pollution in 2009, emitting over **33.4 million pounds** of harmful chemicals, which accounted for **68%** of state pollution and **9%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Florida ranked **18th** among all states in mercury air pollution from power plants with about **1,610 pounds** emitted in 2009, which accounted for **78%** of state mercury air pollution and **2%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|-----------------|---|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Crist | Southern | 9,804,196 | 298 | ● |
| Crystal River | Progress Energy & Others | 9,449,158 | 360 | ● |
| Lansing Smith | Southern | 3,678,906 | 129 | |
| St Johns River | JEA, NextEra Energy | 2,838,015 | 107 | |
| Seminole | Seminole Electric Coop | 1,849,222 | 80 | |
| Stanton | Orlando Utilities, Florida Municipal Power & Others | 1,147,567 | 198 | |
| Big Bend | TECO | 1,130,908 | 100 | |
| Cedar Bay | Cogentrix | 971,307 | 74 | |
| C D McIntosh Jr | City of Lakeland, Orlando Utilities | 502,579 | 11 | |
| Deerhaven | Gainesville Regional Utilities | 419,348 | 12 | ● |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



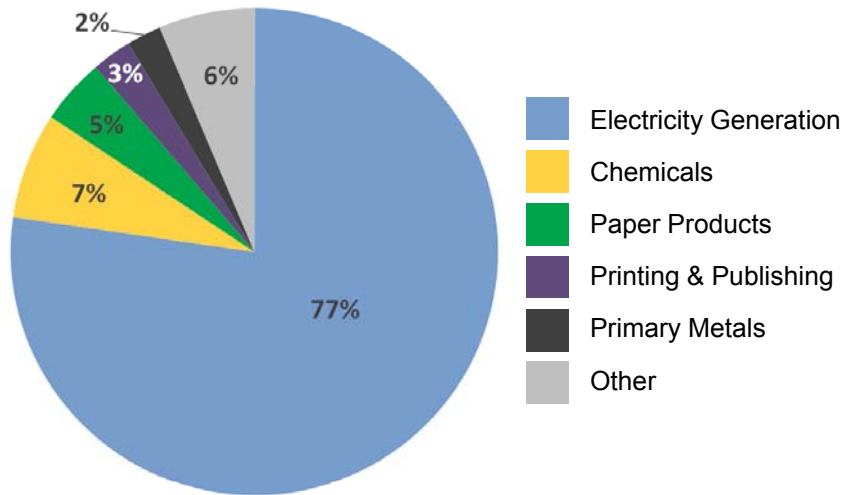
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Kentucky



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 31,947,066 | 77% |
| Chemicals | 2,907,708 | 7% |
| Paper Products | 1,811,981 | 4% |
| Printing & Publishing | 1,092,508 | 3% |
| Primary Metals | 944,219 | 2% |
| Other | 2,636,866 | 6% |
| Total | 41,340,348 | 100% |

Kentucky Key Facts

Toxic Air Pollution

Kentucky's electric sector ranked **FOURTH** in toxic air pollution in 2009, emitting over **31.9 million pounds** of harmful chemicals, which accounted for **77%** of state pollution and about **8%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Kentucky ranked **14th** among all states in mercury air pollution from power plants with about **1,760 pounds** emitted in 2009, which accounted for **89%** of state mercury air pollution and about **2%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|----------------|----------------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Paradise | Tennessee Valley Authority | 7,713,713 | 170 | |
| Big Sandy | AEP | 5,437,314 | 334 | |
| Ghent | PPL | 4,225,878 | 140 | ● |
| Mill Creek | PPL | 4,154,748 | 239 | |
| E W Brown | PPL | 2,027,273 | 123 | ● |
| Cooper | East Kentucky Power Coop | 1,612,120 | 100 | ● |
| Trimble County | PPL & Others | 1,165,453 | 85 | |
| Cane Run | PPL | 834,351 | 86 | |
| East Bend | Duke, DPL | 774,364 | 54 | |
| Shawnee | Tennessee Valley Authority | 761,659 | 190 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



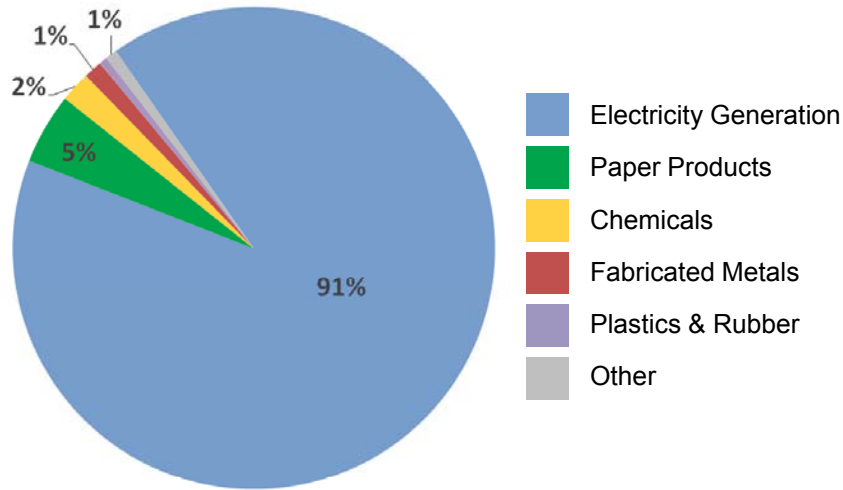
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Maryland



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 27,092,233 | 91% |
| Paper Products | 1,418,913 | 5% |
| Chemicals | 610,921 | 2% |
| Fabricated Metals | 368,027 | 1% |
| Plastics & Rubber | 165,519 | 1% |
| Other | 231,622 | 1% |
| Total | 29,887,235 | 100% |

Maryland Key Facts

Toxic Air Pollution

Maryland's electric sector ranked **FIFTH** in toxic air pollution in 2009, emitting nearly **27.1 million pounds** of harmful chemicals, which accounted for **91%** of state pollution and about **7%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Maryland ranked **26th** among all states in mercury air pollution from power plants with about **820 pounds** emitted in 2009, which accounted for **55%** of state mercury air pollution and about **1%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|----------------------------|---------------|---------------------------|-----------|---------------------------|
| | | All Toxics | Mercury * | |
| Brandon Shores | Constellation | 13,109,753 | 280 | ● |
| Morgantown | GenOn | 7,067,197 | 220 | ● |
| Chalk Point LLC | GenOn | 3,962,155 | 220 | ● |
| Dickerson | GenOn | 2,200,434 | 80 | ● |
| C P Crane | Constellation | 621,633 | 14 | |
| AES Warrior Run | AES | 76,052 | 3 | |
| R Paul Smith Power Station | FirstEnergy | 55,008 | 4 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.

* State has enacted stringent mercury control regulations for the electric sector.



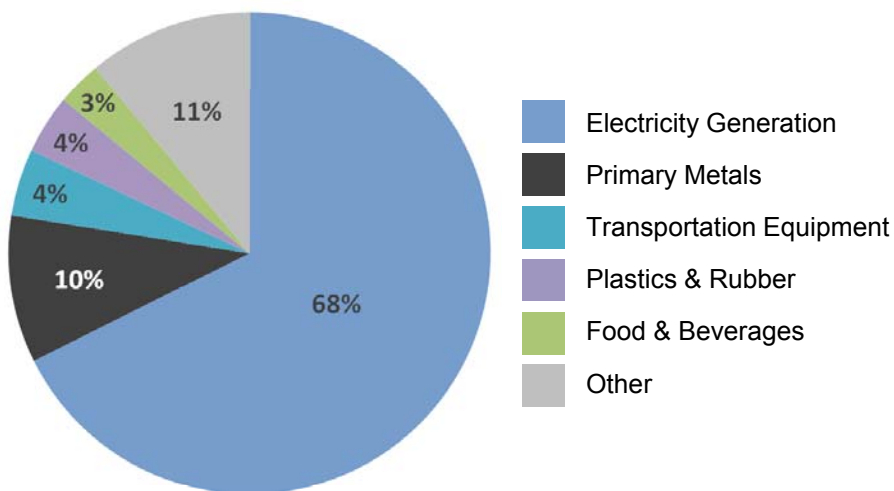
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Indiana



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|--------------------------|---------------------------|--------------------------------|
| Electricity Generation | 26,798,135 | 68% |
| Primary Metals | 3,927,788 | 10% |
| Transportation Equipment | 1,776,924 | 4% |
| Plastics & Rubber | 1,572,561 | 4% |
| Food & Beverages | 1,177,260 | 3% |
| Other | 4,382,226 | 11% |
| Total | 39,634,894 | 100% |

Indiana Key Facts

Toxic Air Pollution

Indiana's electric sector ranked **SIXTH** in toxic air pollution in 2009, emitting nearly **26.8 million pounds** of harmful chemicals, which accounted for **68%** of state pollution and **7%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Indiana ranked **FOURTH** among all states in mercury air pollution from power plants with nearly **3,670 pounds** emitted in 2009, which accounted for **81%** of state mercury air pollution and **5%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|-------------------|----------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Rockport | AEP | 3,554,932 | 852 | |
| AES Petersburg | AES | 3,413,236 | 506 | ● |
| Clifty Creek | AEP & Others | 2,569,618 | 405 | ● |
| Gibson | Duke & Others | 2,180,119 | 142 | |
| State Line Energy | Dominion | 2,141,597 | 62 | |
| R M Schahfer | NiSource | 1,918,387 | 431 | ● |
| R Gallagher | Duke | 1,681,512 | 19 | ● |
| Harding Street | AES | 1,576,384 | 161 | |
| Merom | Hoosier Energy | 1,558,311 | 242 | ● |
| Frank E Ratts | Hoosier Energy | 1,550,911 | 57 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



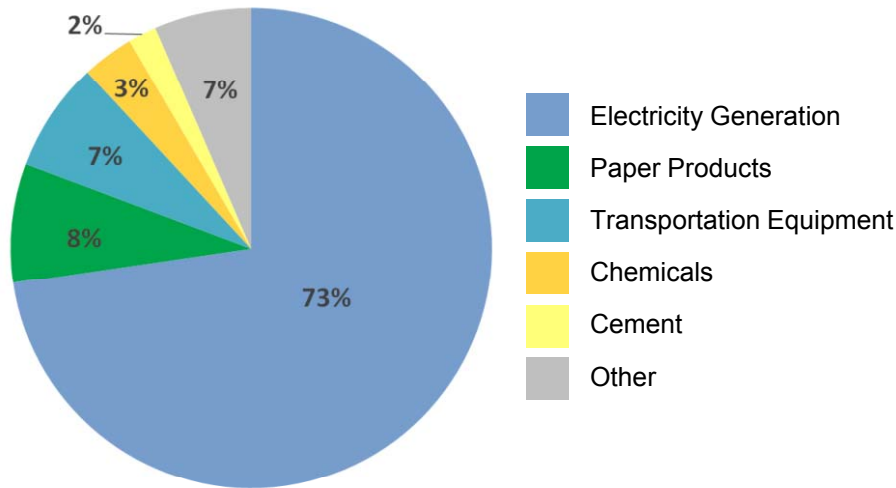
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Michigan



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|--------------------------|---------------------------|--------------------------------|
| Electricity Generation | 22,731,782 | 73% |
| Paper Products | 2,509,690 | 8% |
| Transportation Equipment | 2,305,549 | 7% |
| Chemicals | 1,089,073 | 3% |
| Cement | 598,576 | 2% |
| Other | 2,041,620 | 7% |
| Total | 31,276,291 | 100% |

Michigan Key Facts

Toxic Air Pollution

Michigan's electric sector ranked **SEVENTH** in toxic air pollution in 2009, emitting over **22.7 million pounds** of harmful chemicals, which accounted for **73%** of state pollution and **6%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Michigan ranked **SEVENTH** among all states in mercury air pollution from power plants with about **2,790 pounds** emitted in 2009, which accounted for **87%** of state mercury air pollution and **4%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|---------------------------|--------------------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Monroe | DTE Energy | 9,691,081 | 848 | ● |
| Trenton Channel | DTE Energy | 2,306,058 | 185 | |
| Dan E Karn / J C Weadlock | CMS Energy | 1,709,371 | 197 | ● |
| J H Campbell | CMS Energy & Others | 1,500,241 | 431 | |
| River Rouge | DTE Energy | 1,277,897 | 153 | |
| St Clair | DTE Energy | 1,256,389 | 280 | |
| Eckert Station | Lansing Board of Water & Light | 1,112,071 | 71 | |
| Erickson Station | Lansing Board of Water & Light | 911,495 | 58 | |
| B C Cobb | CMS Energy | 664,819 | 79 | |
| J R Whiting | CMS Energy | 481,558 | 85 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.

* State has enacted stringent mercury control regulations for the electric sector.



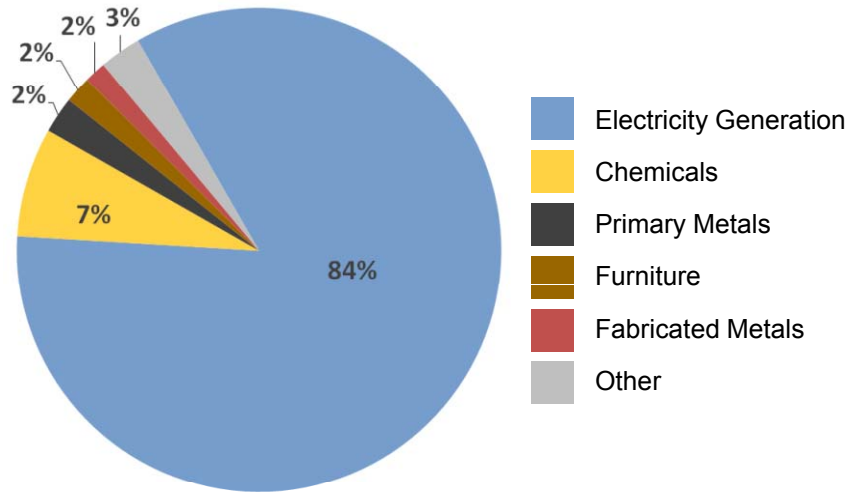
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in West Virginia



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 21,486,688 | 84% |
| Chemicals | 1,850,122 | 7% |
| Primary Metals | 618,192 | 2% |
| Furniture | 456,502 | 2% |
| Fabricated Metals | 371,631 | 1% |
| Other | 710,127 | 3% |
| Total | 25,493,261 | 100% |

West Virginia Key Facts

Toxic Air Pollution

West Virginia's electric sector ranked **EIGHTH** in toxic air pollution in 2009, emitting nearly **21.5 million pounds** of harmful chemicals, which accounted for **84%** of state pollution and **6%** of toxic pollution from all U.S. power plants.

Mercury Pollution

West Virginia ranked **10th** among all states in mercury air pollution from power plants with about **2,520 pounds** emitted in 2009, which accounted for **94%** of state mercury air pollution and **4%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|---------------------------|-------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| John E Amos | AEP | 6,675,594 | 526 | ● |
| Harrison Power Station | FirstEnergy | 3,785,973 | 134 | |
| Willow Island | FirstEnergy | 2,476,084 | 79 | |
| Philip Sporn | AEP | 2,265,656 | 132 | |
| Fort Martin Power Station | FirstEnergy | 1,894,128 | 329 | ● |
| Kammer | AEP | 1,664,782 | 364 | |
| Kanawha River | AEP | 1,384,944 | 82 | |
| Mt Storm | Dominion | 668,969 | 309 | |
| Mountaineer | AEP | 409,056 | 311 | |
| Albright | FirstEnergy | 217,091 | 79 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



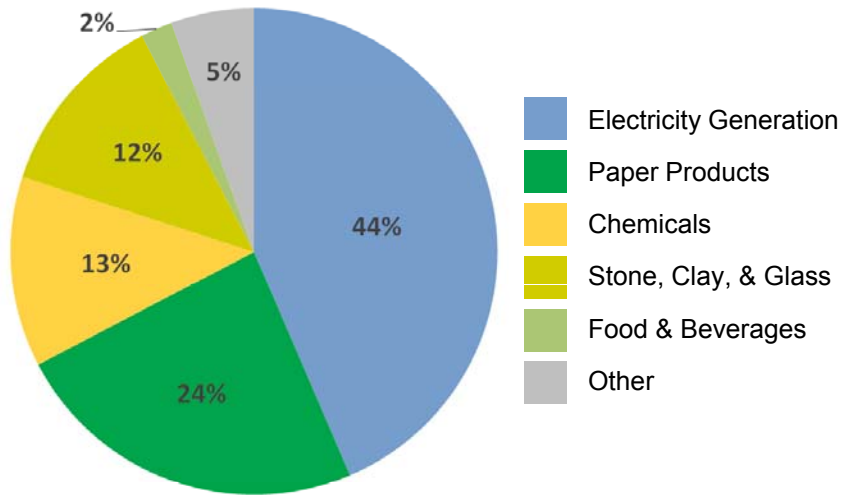
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Georgia



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 18,246,617 | 44% |
| Paper Products | 9,962,289 | 24% |
| Chemicals | 5,313,550 | 13% |
| Stone, Clay, & Glass | 5,192,392 | 12% |
| Food & Beverages | 880,711 | 2% |
| Other | 2,307,289 | 6% |
| Total | 41,902,848 | 100% |

Georgia Key Facts

Toxic Air Pollution

Georgia's electric sector ranked **NINTH** in toxic air pollution in 2009, emitting over **18.2 million pounds** of harmful chemicals, which accounted for **44%** of state pollution and **5%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Georgia ranked **13th** among all states in mercury air pollution from power plants with **1,950 pounds** emitted in 2009, which accounted for **82%** of state mercury air pollution and **3%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|--------------------------|-------------------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Harlee Branch | Southern | 6,155,089 | 266 | |
| Bowen | Southern | 5,431,270 | 264 | ● |
| Yates | Southern | 2,284,074 | 257 | |
| Wansley | Southern, Oglethorpe & Others | 1,738,841 | 79 | ● |
| Scherer | Oglethorpe, Southern & Others | 1,160,202 | 889 | ● |
| Jack McDonough | Southern | 643,347 | 90 | |
| Hammond | Southern | 371,277 | 64 | |
| McIntosh | Southern | 250,048 | 0 | |
| Kraft | Southern | 212,162 | 41 | |
| Mid-Georgia Cogeneration | Perennial Power Holdings | 300 | 0 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



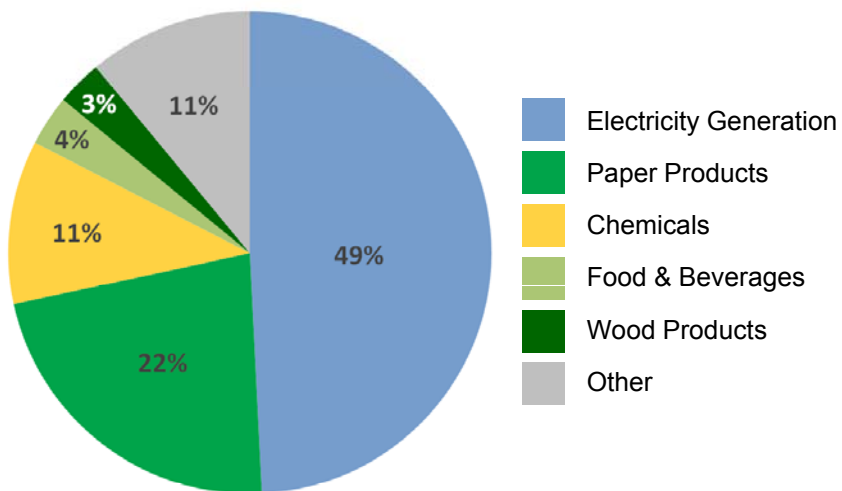
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in North Carolina



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 14,907,994 | 49% |
| Paper Products | 6,780,337 | 22% |
| Chemicals | 3,325,752 | 11% |
| Food & Beverages | 1,025,463 | 3% |
| Wood Products | 928,268 | 3% |
| Other | 3,328,196 | 11% |
| Total | 30,296,011 | 100% |

North Carolina Key Facts

Toxic Air Pollution

North Carolina's electric sector ranked **10th** in toxic air pollution in 2009, emitting about **14.9 million pounds** of harmful chemicals, which accounted for **49%** of state pollution and **4%** of toxic pollution from all U.S. power plants.

Mercury Pollution

North Carolina ranked **23rd** among all states in mercury air pollution from power plants with about **1,220 pounds** emitted in 2009, which accounted for **68%** of state mercury air pollution and **2%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|---------------|--------------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Cliffside | Duke | 3,516,790 | 141 | ● |
| L V Sutton | Progress Energy | 2,112,951 | 110 | |
| Lee | Progress Energy | 1,641,812 | 88 | |
| G G Allen | Duke | 1,431,792 | 114 | ● |
| Cape Fear | Progress Energy | 1,430,019 | 68 | |
| Mayo | Progress Energy & Others | 1,000,178 | 96 | ● |
| Belew s Creek | Duke | 882,446 | 146 | |
| Marshall | Duke | 748,885 | 289 | |
| Riverbend | Duke | 548,850 | 31 | |
| Buck | Duke | 499,018 | 28 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



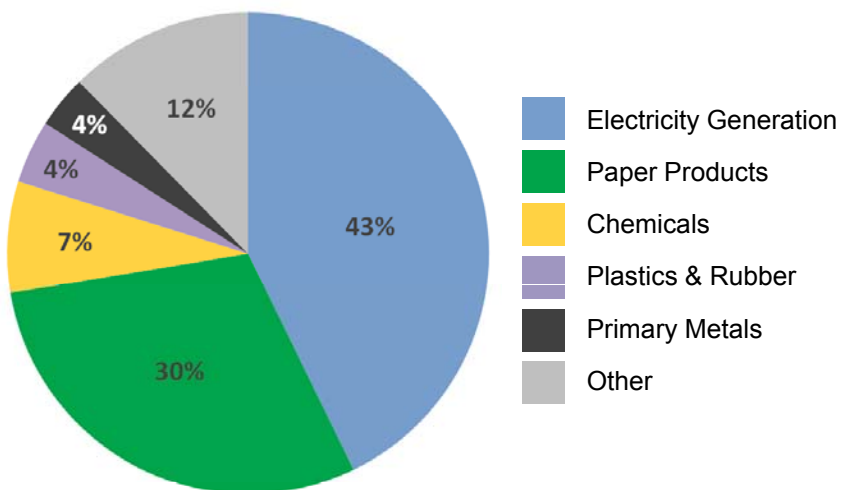
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in South Carolina



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 11,453,391 | 43% |
| Paper Products | 7,927,152 | 30% |
| Chemicals | 1,997,620 | 7% |
| Plastics & Rubber | 1,136,434 | 4% |
| Primary Metals | 950,644 | 4% |
| Other | 3,308,798 | 12% |
| Total | 26,774,040 | 100% |

South Carolina Key Facts

Toxic Air Pollution

South Carolina's electric sector ranked **11th** in toxic air pollution in 2009, emitting about **11.5 million pounds** of harmful chemicals, which accounted for **43%** of state pollution and **3%** of toxic pollution from all U.S. power plants.

Mercury Pollution

South Carolina ranked **31st** among all states in mercury air pollution from power plants with nearly **560 pounds** emitted in 2009, which accounted for **44%** of state mercury air pollution and **1%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|---------------|-----------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Williams | SCANA | 3,010,392 | 157 | ● |
| Wateree | SCANA | 2,670,765 | 46 | ● |
| Cross | Santee Cooper | 1,115,336 | 114 | |
| Canadys Steam | SCANA | 947,934 | 39 | |
| H B Robinson | Progress Energy | 867,223 | 27 | |
| Winyah | Santee Cooper | 762,052 | 57 | |
| McMeekin | SCANA | 742,004 | 13 | |
| W S Lee | Duke | 504,476 | 27 | |
| Urquhart | SCANA | 340,940 | 23 | |
| Jefferies | Santee Cooper | 173,107 | 10 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



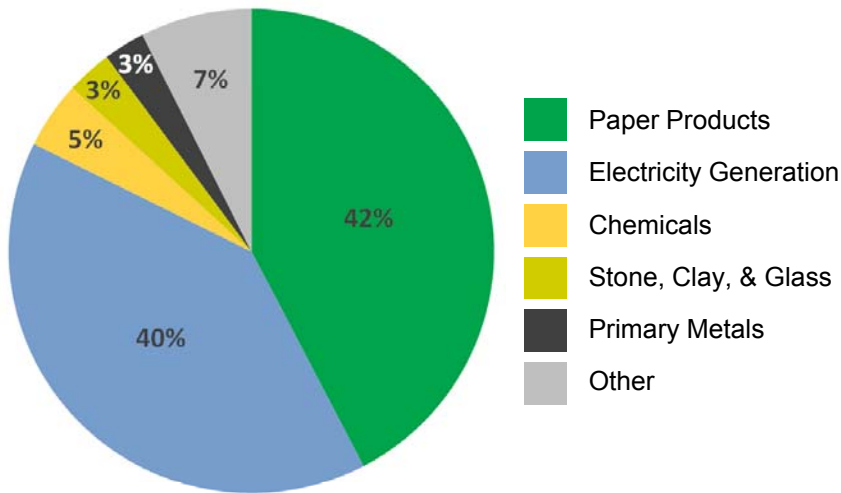
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Alabama



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Paper Products | 12,102,413 | 42% |
| Electricity Generation | 11,418,246 | 40% |
| Chemicals | 1,276,945 | 4% |
| Stone, Clay, & Glass | 871,347 | 3% |
| Primary Metals | 787,314 | 3% |
| Other | 2,116,812 | 7% |
| Total | 28,573,077 | 100% |

Alabama Key Facts

Toxic Air Pollution

Alabama's electric sector ranked **12th** in toxic air pollution in 2009, emitting over **11.4 million pounds** of harmful chemicals, which accounted for **40%** of state pollution and **3%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Alabama ranked **SIXTH** among all states in mercury air pollution from power plants with over **3,170 pounds** emitted in 2009, which accounted for **79%** of state mercury air pollution and about **4%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|----------------------------|--------------------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| E C Gaston | Southern | 3,864,388 | 545 | ● |
| Widow s Creek | Tennessee Valley Authority | 1,565,453 | 83 | ● |
| Barry | Southern | 1,457,332 | 426 | ● |
| James H Miller Jr | Southern & Others | 1,042,448 | 1,206 | ● |
| Greene County | Southern | 1,013,924 | 403 | |
| Charles R Low man | Pow erSouth Energy Cooperative | 795,077 | 37 | ● |
| Colbert | Tennessee Valley Authority | 724,462 | 100 | |
| Gorgas | Southern | 705,991 | 272 | |
| Mobile Energy Services LLC | DTE Energy | 181,623 | 20 | |
| Gadsden | Southern | 67,548 | 82 | |

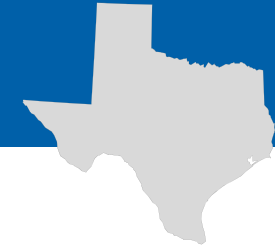
● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



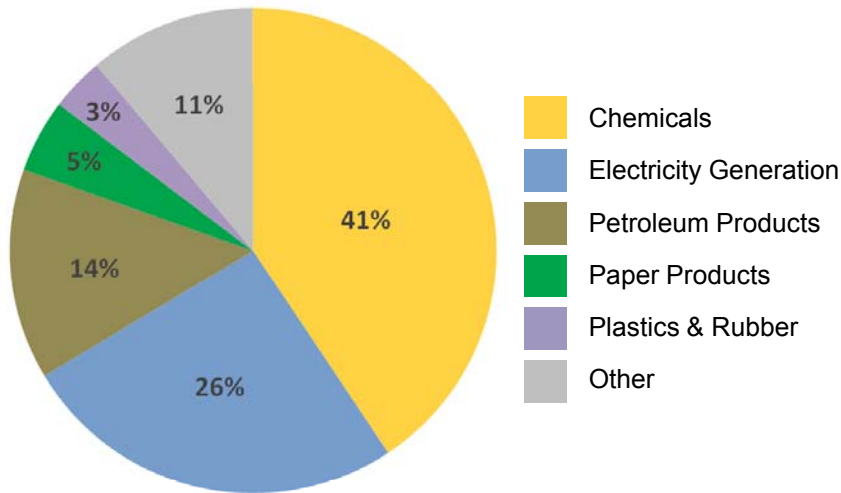
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Texas



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Chemicals | 16,028,305 | 41% |
| Electricity Generation | 10,155,177 | 26% |
| Petroleum Products | 5,544,041 | 14% |
| Paper Products | 1,923,754 | 5% |
| Plastics & Rubber | 1,404,543 | 4% |
| Other | 4,386,331 | 11% |
| Total | 39,442,151 | 100% |

Texas Key Facts

Toxic Air Pollution

Texas's electric sector ranked **13th** in toxic air pollution in 2009, emitting nearly **10.2 million pounds** of harmful chemicals, which accounted for **26%** of state pollution and about **3%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Texas ranked **FIRST** among all states in mercury air pollution from power plants with nearly **10,820 pounds** emitted in 2009, which accounted for **85%** of state mercury air pollution and **15%** of U.S. electric sector mercury pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|-----------------------|---|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Monticello | Energy Future Holdings | 3,622,494 | 1,063 | |
| Big Brown | Energy Future Holdings | 1,679,568 | 1,362 | |
| Martin Lake | Energy Future Holdings | 930,935 | 1,566 | |
| W A Parish | NRG | 668,821 | 845 | |
| Limestone | NRG | 378,252 | 1,077 | |
| Fayette Power Project | Austin Energy, Lower Colorado River Authority | 327,122 | 380 | ● |
| San Miguel | Brazos Electric Power Coop., South Texas Electric | 311,709 | 524 | |
| Harrington | Xcel | 296,703 | 290 | |
| Welsh | AEP | 288,273 | 462 | |
| Tolk | Xcel | 272,185 | 248 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



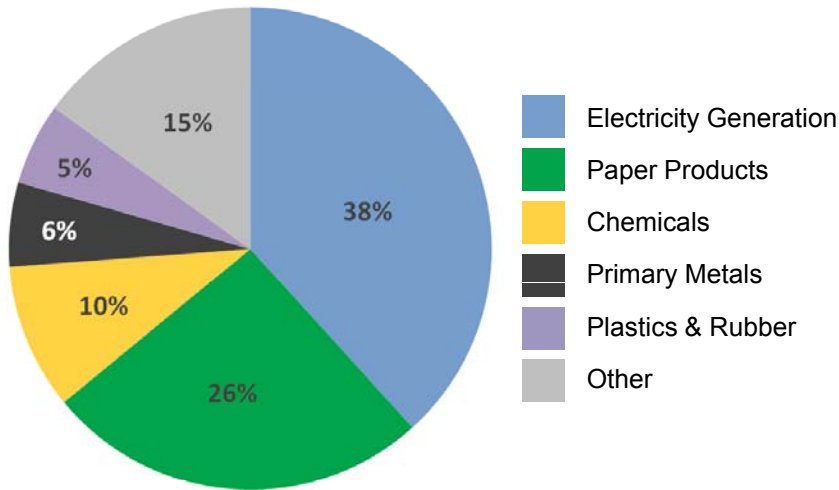
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Virginia



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 9,649,281 | 38% |
| Paper Products | 6,488,679 | 26% |
| Chemicals | 2,470,838 | 10% |
| Primary Metals | 1,418,573 | 6% |
| Plastics & Rubber | 1,383,167 | 5% |
| Other | 3,794,829 | 15% |
| Total | 25,205,367 | 100% |

Virginia Key Facts

Toxic Air Pollution

Virginia's electric sector ranked **14th** in toxic air pollution in 2009, emitting over **9.6 million pounds** of harmful chemicals, which accounted for **38%** of state pollution and **3%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Virginia ranked **28th** among all states in mercury air pollution from power plants with about **700 pounds** emitted in 2009, which accounted for **66%** of state mercury air pollution and **1%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|--------------------------|---------------------------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Chesterfield | Dominion | 2,741,968 | 180 | ● |
| Chesapeake | Dominion | 2,023,315 | 140 | |
| Clinch River | AEP | 1,159,899 | 59 | |
| Yorktown | Dominion | 1,056,592 | 89 | |
| Bremo Bluff | Dominion | 575,957 | 98 | |
| Clover | Dominion, Old Dominion Electric Coop. | 361,555 | 15 | |
| Hopewell Cogeneration | SUEZ Energy | 326,472 | 0 | |
| James River Cogeneration | Cogentrix | 292,404 | 17 | ● |
| DEGS of Narrows LLC | Duke | 234,376 | 34 | |
| Glen Lyn | AEP | 217,028 | 15 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



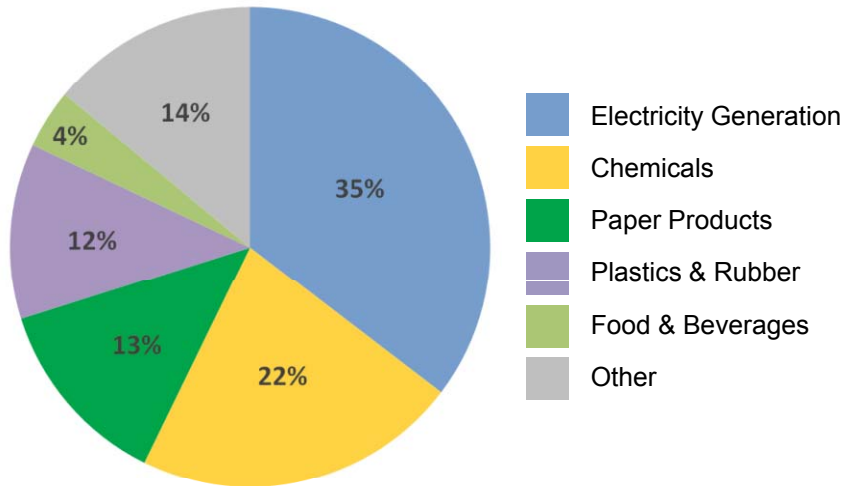
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Tennessee



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 8,864,747 | 35% |
| Chemicals | 5,489,828 | 22% |
| Paper Products | 3,226,994 | 13% |
| Plastics & Rubber | 2,975,428 | 12% |
| Food & Beverages | 996,002 | 4% |
| Other | 3,517,571 | 14% |
| Total | 25,070,569 | 100% |

Tennessee Key Facts

Toxic Air Pollution

Tennessee's electric sector ranked **15th** in toxic air pollution in 2009, emitting nearly **8.9 million pounds** of harmful chemicals, which accounted for **35%** of state pollution and **2%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Tennessee ranked **24th** among all states in mercury air pollution from power plants with about **1,170 pounds** emitted in 2009, which accounted for **70%** of state mercury air pollution and **2%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|-------------------|----------------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Cumberland | Tennessee Valley Authority | 3,598,226 | 140 | |
| Johnsonville | Tennessee Valley Authority | 2,187,147 | 190 | |
| Kingston | Tennessee Valley Authority | 1,072,082 | 100 | ● |
| Allen Steam Plant | Tennessee Valley Authority | 917,939 | 190 | |
| John Sevier | Tennessee Valley Authority | 574,036 | 240 | |
| Gallatin | Tennessee Valley Authority | 280,414 | 280 | |
| Bull Run | Tennessee Valley Authority | 234,902 | 33 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



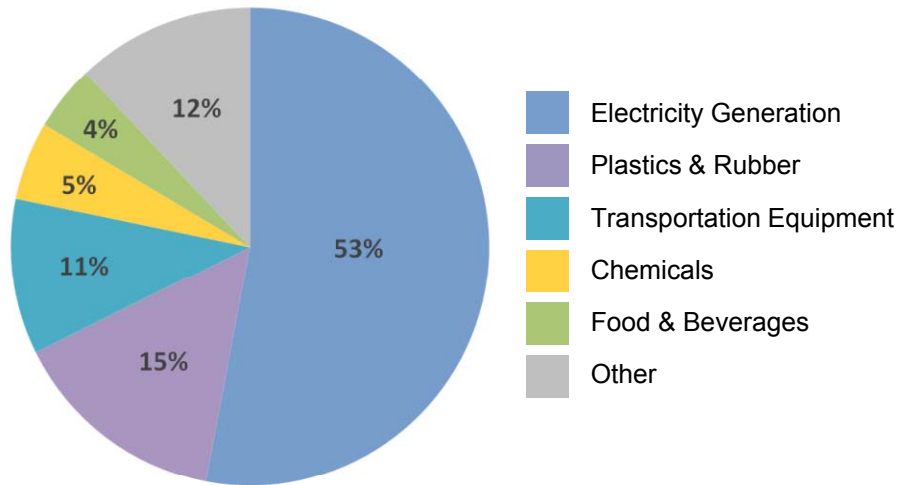
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Missouri



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|--------------------------|---------------------------|--------------------------------|
| Electricity Generation | 6,360,329 | 53% |
| Plastics & Rubber | 1,767,336 | 15% |
| Transportation Equipment | 1,270,931 | 11% |
| Chemicals | 633,995 | 5% |
| Food & Beverages | 529,517 | 4% |
| Other | 1,449,518 | 12% |
| Total | 12,011,626 | 100% |

Missouri Key Facts

Toxic Air Pollution

Missouri's electric sector ranked **16th** in toxic air pollution in 2009, emitting nearly **6.4 million pounds** of harmful chemicals, which accounted for **53%** of state pollution and **2%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Missouri ranked **FIFTH** among all states in mercury air pollution from power plants with nearly **3,640 pounds** emitted in 2009, which accounted for **87%** of state mercury air pollution and **5%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|-------------|-----------------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Sioux | Ameren | 2,344,989 | 306 | ● |
| Labadie | Ameren | 740,546 | 1,297 | |
| Asbury | Empire District Electric Co | 542,499 | 32 | |
| Columbia | City of Columbia | 540,092 | 3 | |
| Thomas Hill | Associated Electric Coop | 372,062 | 270 | |
| New Madrid | Associated Electric Coop | 335,140 | 150 | |
| Rush Island | Ameren | 271,242 | 553 | |
| Meramec | Ameren | 213,271 | 336 | |
| Montrose | Great Plains Energy | 211,659 | 129 | |
| Sibley | Great Plains Energy | 170,590 | 46 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



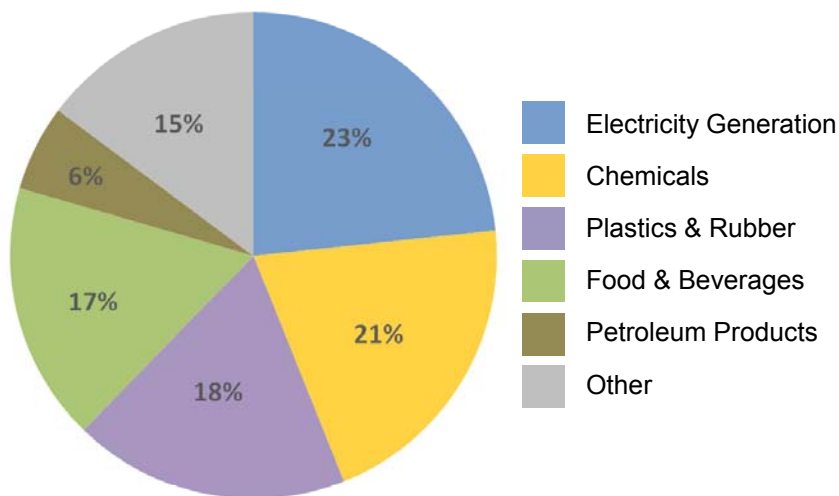
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Illinois



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 5,583,222 | 23% |
| Chemicals | 4,923,597 | 21% |
| Plastics & Rubber | 4,388,135 | 18% |
| Food & Beverages | 4,117,318 | 17% |
| Petroleum Products | 1,364,353 | 6% |
| Other | 3,540,391 | 15% |
| Total | 23,917,015 | 100% |

Illinois Key Facts

Toxic Air Pollution

Illinois's electric sector ranked **17th** in toxic air pollution in 2009, emitting nearly **5.6 million pounds** of harmful chemicals, which accounted for **23%** of state pollution and **1%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Illinois ranked **EIGHTH** among all states in mercury air pollution from power plants with about **2,680 pounds** emitted in 2009, which accounted for **79%** of state mercury air pollution and **4%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|------------------------|----------------------|---------------------------|-----------|---------------------------|
| | | All Toxics | Mercury * | |
| Baldwin Energy Complex | Dynegy | 889,111 | 320 | ● |
| Coffeen | Ameren | 521,774 | 214 | ● |
| Tuscola Station | SUEZ Energy, Duke | 507,528 | 18 | |
| Newton | Ameren | 488,098 | 360 | ● |
| Powerton | Edison International | 443,992 | 136 | |
| Kincaid Generation LLC | Dominion | 417,693 | 233 | |
| Joliet 29 | Edison International | 372,260 | 212 | |
| Joppa Steam | Ameren, PPL | 278,049 | 259 | ● |
| Dallman | City of Springfield | 244,559 | 17 | |
| Will County | Edison International | 241,913 | 168 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.

* State has enacted stringent mercury control regulations for the electric sector.



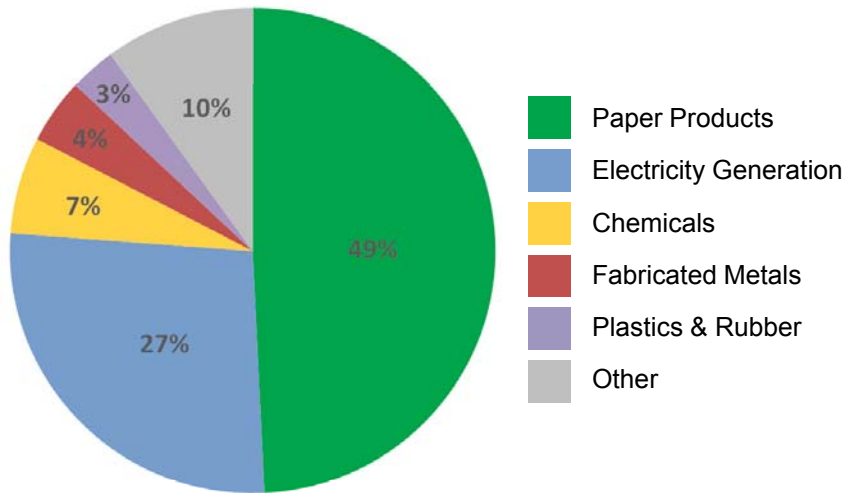
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Wisconsin



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Paper Products | 6,306,109 | 49% |
| Electricity Generation | 3,451,772 | 27% |
| Chemicals | 825,613 | 6% |
| Fabricated Metals | 557,403 | 4% |
| Plastics & Rubber | 392,729 | 3% |
| Other | 1,276,555 | 10% |
| Total | 12,810,181 | 100% |

Wisconsin Key Facts

Toxic Air Pollution

Wisconsin's electric sector ranked **18th** in toxic air pollution in 2009, emitting nearly **3.5 million pounds** of harmful chemicals, which accounted for **27%** of state pollution and about **1%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Wisconsin ranked **12th** among all states in mercury air pollution from power plants with nearly **2,000 pounds** emitted in 2009, which accounted for **91%** of state mercury air pollution and **3%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|------------------|--|---------------------------|-----------|---------------------------|
| | | All Toxics | Mercury * | |
| Alma | Dairyland Power Coop | 832,523 | 72 | |
| Nelson Dewey | Alliant Energy | 551,245 | 40 | |
| Columbia Valley | Alliant Energy, Integrys, Madison Gas & Electric | 410,088 | 626 | |
| Pleasant Prairie | Wisconsin Energy | 386,718 | 5 | |
| Pleasant Prairie | Wisconsin Energy | 347,319 | 527 | |
| Genoa | Dairyland Power Coop | 237,993 | 38 | ● |
| Edgewater | Alliant Energy & Others | 207,681 | 177 | |
| South Oak Creek | Wisconsin Energy | 167,200 | 190 | |
| Weston | Integrys, Dairyland Power Coop. | 88,445 | 190 | ● |
| Pulliam | Integrys | 58,663 | 100 | ● |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.

* State has enacted stringent mercury control regulations for the electric sector.



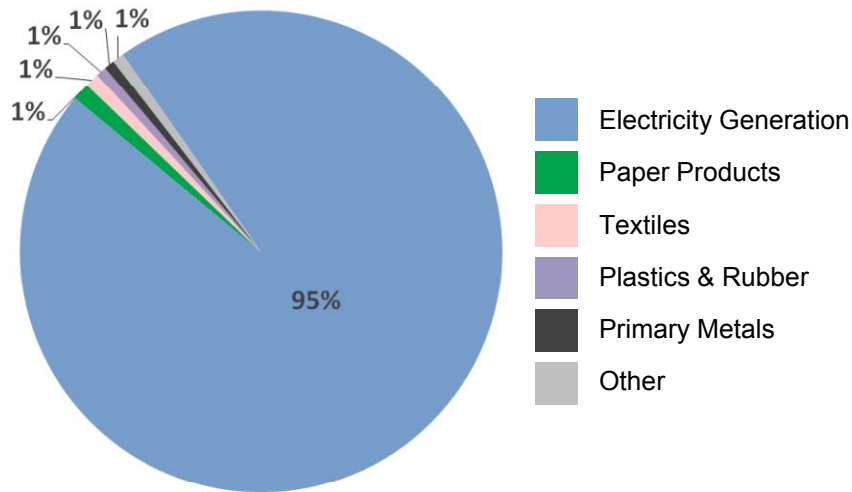
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in New Hampshire



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Electricity Generation | 2,519,676 | 96% |
| Paper Products | 31,051 | 1% |
| Textiles | 24,793 | 1% |
| Plastics & Rubber | 18,829 | 1% |
| Primary Metals | 18,527 | 1% |
| Other | 20,267 | 1% |
| Total | 2,633,143 | 100% |

New Hampshire Key Facts

Toxic Air Pollution

New Hampshire's electric sector ranked **19th** in toxic air pollution in 2009, emitting over **2.5 million pounds** of harmful chemicals, which accounted for **96%** of state pollution and about **1%** of toxic pollution from all U.S. power plants.

Mercury Pollution

New Hampshire ranked **38th** among all states in mercury air pollution from power plants with **175 pounds** emitted in 2009, which accounted for **99%** of state mercury air pollution and less than **1%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|----------------------|--------------------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| Merrimack | Public Service Co of NH | 2,254,216 | 160 | ● |
| Schiller | Public Service Co of NH | 223,866 | 15 | |
| Newington | Public Service Co of NH | 29,604 | 1 | |
| NAEA Newington Power | North American Energy Alliance | 11,271 | 0 | |
| Indeck Alexandria | Indeck | 720 | 0 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



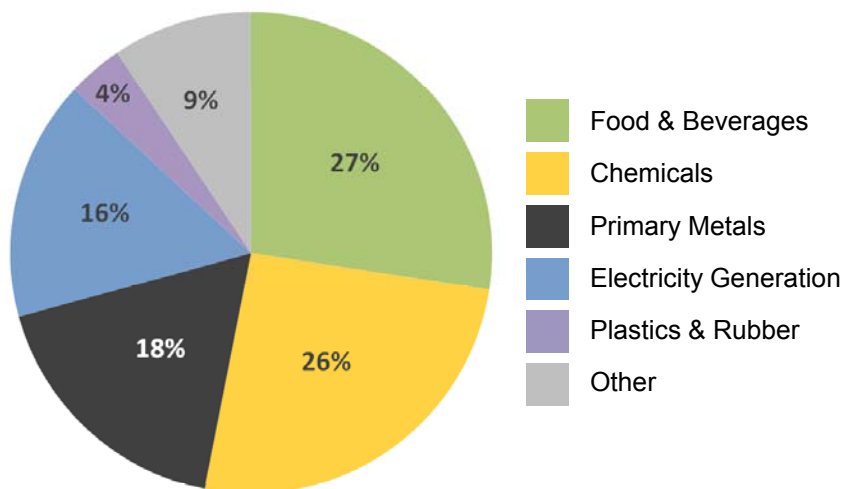
Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Toxic Industrial Air Pollution in Iowa



Toxic Air Pollution by Sector



| Sector | Toxic Air Pollution (lbs) | % of State Toxic Air Pollution |
|------------------------|---------------------------|--------------------------------|
| Food & Beverages | 4,216,459 | 27% |
| Chemicals | 3,945,660 | 26% |
| Primary Metals | 2,708,784 | 18% |
| Electricity Generation | 2,486,771 | 16% |
| Plastics & Rubber | 574,086 | 4% |
| Other | 1,438,910 | 9% |
| Total | 15,370,670 | 100% |

Iowa Key Facts

Toxic Air Pollution

Iowa's electric sector ranked **20th** in toxic air pollution in 2009, emitting nearly **2.5 million pounds** of harmful chemicals, which accounted for **16%** of state pollution and less than **1%** of toxic pollution from all U.S. power plants.

Mercury Pollution

Iowa ranked **11th** among all states in mercury air pollution from power plants with about **2,220 pounds** emitted in 2009, which accounted for **83%** of state mercury air pollution and about **3%** of U.S. electric sector pollution.

Top Power Plant Polluters

| Plant Name | Owner(s) | Toxic Air Pollution (lbs) | | Pollution Control Update? |
|------------------------------------|--------------------------------------|---------------------------|---------|---------------------------|
| | | All Toxics | Mercury | |
| George Neal North | MidAmerican, Alliant Energy | 801,266 | 400 | |
| George Neal South | MidAmerican, Alliant Energy & Others | 489,297 | 260 | |
| Walter Scott Jr Energy Center | MidAmerican & Others | 348,970 | 340 | ● |
| Ottumwa | MidAmerican, Alliant Energy | 192,948 | 323 | |
| Fair Station | Central Iowa Power Cooperative | 118,446 | 16 | |
| Ames Electric Services Power Plant | Ames City of | 113,969 | 17 | |
| Lansing | Alliant Energy | 93,872 | 167 | ● |
| Riverside | MidAmerican | 93,330 | 40 | |
| Burlington | Alliant Energy | 59,603 | 132 | |
| Muscatine Plant #1 | Board of Water Electric & | 43,401 | 120 | |

● Pollution controls have been installed since 2009 or are currently under construction. These investments should reduce emissions of mercury and other toxic air pollutants in future years.



Note: The possibility of already planned retirements or pollution controls at the listed plants may also reduce emissions in future years.

Sources: EPA's Toxics Release Inventory (2009 data), accessed June 2011; EPA's National Electric Energy Data System Database v.4.10 (2010).

Appendix: State Summary Table

| State | Electric Sector Rank by In-State Toxic Air Pollution | Total Industrial Toxic Air Pollution (lbs) | Electric Sector Toxic Air Pollution (lbs) | Electric Sector Contribution to State Toxic Air Pollution (%) | Status of State Mercury Regulations |
|----------------------|--|--|---|---|-------------------------------------|
| Alabama | 2 | 28,573,077 | 11,418,246 | 40% | |
| Alaska | 1 | 159,463 | 60,487 | 38% | |
| Arizona | 1 | 2,126,315 | 907,173 | 43% | |
| Arkansas | 2 | 11,117,456 | 1,366,705 | 12% | |
| California | 7 | 7,447,971 | 273,998 | 4% | |
| Colorado | 1 | 1,702,504 | 917,925 | 54% | ● |
| Connecticut | 2 | 1,522,453 | 404,466 | 27% | ● |
| Delaware | 1 | 3,054,356 | 2,430,253 | 80% | ● |
| District of Columbia | 1 | 4 | 3 | 59% | |
| Florida | 1 | 49,039,948 | 33,442,431 | 68% | |
| Georgia | 1 | 41,902,848 | 18,246,617 | 44% | ● |
| Hawaii | 1 | 1,984,530 | 1,819,678 | 92% | |
| Idaho | 15 | 2,586,572 | 0 | 0% | |
| Illinois | 1 | 23,917,015 | 5,583,222 | 23% | ● |
| Indiana | 1 | 39,634,894 | 26,798,135 | 68% | |
| Iowa | 4 | 15,370,670 | 2,486,771 | 16% | |
| Kansas | 3 | 6,275,444 | 995,054 | 16% | |
| Kentucky | 1 | 41,340,348 | 31,947,066 | 77% | |
| Louisiana | 4 | 34,505,184 | 1,393,764 | 4% | |
| Maine | 15 | 2,664,694 | 6 | 0% | |
| Maryland | 1 | 29,887,235 | 27,092,233 | 91% | ● |
| Massachusetts | 1 | 2,578,736 | 1,768,347 | 69% | ● |
| Michigan | 1 | 31,276,291 | 22,731,782 | 73% | ● |
| Minnesota | 2 | 6,959,957 | 1,063,733 | 15% | ● |
| Mississippi | 3 | 13,127,345 | 2,026,087 | 15% | |
| Missouri | 1 | 12,011,626 | 6,360,329 | 53% | |

● State has an electric sector mercury regulation that is **at least as** stringent as EPA's proposed utility air toxics rule.

● State has an electric sector mercury regulation that is **less** stringent than EPA's proposed utility air toxics rule.



Sources: EPA's Toxic Release Inventory (2009 data), accessed June 2011; State environmental departments.

Appendix: State Summary Table (Continued)

| State | Electric Sector Rank by In-State Toxic Air Pollution | Total Industrial Toxic Air Pollution (lbs) | Electric Sector Toxic Air Pollution (lbs) | Electric Sector Contribution to State Toxic Air Pollution (%) | Status of State Mercury Regulations |
|-------------------|--|--|---|---|-------------------------------------|
| Montana | 2 | 1,987,675 | 430,210 | 22% | ● |
| Nebraska | 1 | 4,944,667 | 1,785,373 | 36% | |
| Nevada | 1 | 632,177 | 314,897 | 50% | |
| New Hampshire | 1 | 2,633,143 | 2,519,676 | 96% | ● |
| New Jersey | 1 | 3,592,027 | 1,901,291 | 53% | ● |
| New Mexico | 1 | 699,535 | 487,934 | 70% | |
| New York | 1 | 7,767,230 | 2,333,947 | 30% | ● |
| North Carolina | 1 | 30,296,011 | 14,907,994 | 49% | ● |
| North Dakota | 2 | 3,399,743 | 1,101,850 | 32% | |
| Ohio | 1 | 68,863,474 | 44,545,704 | 65% | |
| Oklahoma | 3 | 12,152,283 | 1,155,134 | 10% | |
| Oregon | 7 | 4,862,469 | 102,514 | 2% | ● |
| Pennsylvania | 1 | 50,527,280 | 41,459,532 | 82% | |
| Rhode Island | 5 | 116,379 | 15,580 | 13% | |
| South Carolina | 1 | 26,774,040 | 11,453,391 | 43% | ● |
| South Dakota | 3 | 873,461 | 120,504 | 14% | |
| Tennessee | 1 | 25,070,569 | 8,864,747 | 35% | |
| Texas | 2 | 39,442,151 | 10,155,177 | 26% | |
| Utah | 2 | 5,494,823 | 1,165,660 | 21% | ● |
| Vermont | 9 | 11,231 | 0 | 0% | |
| Virginia | 1 | 25,205,367 | 9,649,281 | 38% | |
| Washington | 5 | 5,656,092 | 158,334 | 3% | |
| West Virginia | 1 | 25,493,261 | 21,486,688 | 84% | |
| Wisconsin | 2 | 12,810,181 | 3,451,772 | 27% | ● |
| Wyoming | 1 | 1,508,501 | 638,900 | 42% | |
| U.S. Total | 1 | 771,580,707 | 381,740,601 | 49% | |

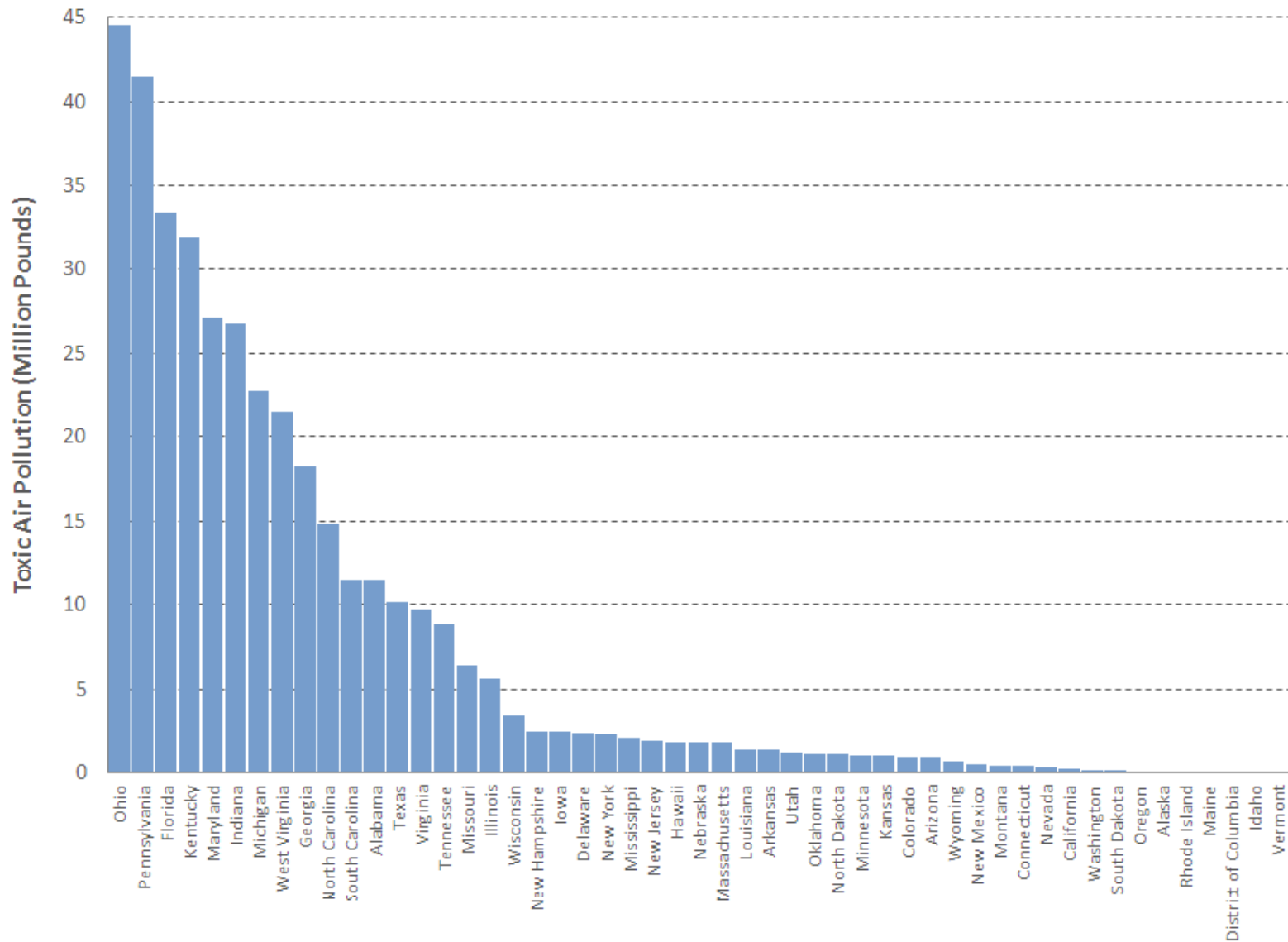
● State has electric sector mercury regulations that are **at least as** stringent as EPA's proposed utility air toxics rule.

● State has electric sector mercury regulation that are **less** stringent than EPA's proposed utility air toxics rule.



Sources: EPA's Toxic Release Inventory (2009 data), accessed June 2011; State environmental departments.

Appendix: Electric Sector Toxic Air Pollution by State



Methodology

Obtaining TRI Data

This report relies on the updated 2009 TRI data, which was accessed using the TRI.NET application provided by EPA here:

<http://www.epa.gov/tri/tridotnet/index.html>. The updated 2009 dataset (“TRI 2009: UP 2009”) was downloaded in June 2011. Any subsequent revisions to the 2009 data are not reflected in this report. The following methodology describes how the TRI data were obtained and exactly what was considered in this report.

- State-Level Toxic Air Emissions:
 1. Using the TRI.NET Data Engine build a new query.
 2. Under “FILTERING Variables” select all chemicals, all industries, all states, and the 2009 data year.
 3. In “Releases” under “DATA Variables” select: “Point Source Air Emissions.”
 4. Under “GROUPING Variables” select: Industry, State, and Year.
 5. Run query and export data to Excel.
- Plant-Level Toxic Air Emissions:
 1. Using the TRI.NET Data Engine build a new query.
 2. Under “FILTERING Variables” select: all chemicals, all states, and the 2009 data year.
 3. Under “FILTERING Variables” in the “Industry” folder select: “NAICS 2211 – Electric Utilities.”
 4. Under “DATA Variables” in the “Releases” folder select: “Point Source Air Emissions.”
 5. Under “GROUPING Variables” select: TRI ID, Chemical, Industry, Name, Address, City, State, and Year.

For all U.S. totals, only the 50 states and the District of Columbia were included.

Matching TRI Data to EIA-860

TRI facility identification numbers (TRI IDs) were matched with EIA plant codes for the top 10 emitters in each of the selected states using plant names and address information included in both the TRI and the EIA-860. Since TRI data are reported at the site-level, some TRI IDs reflect emissions from two or more power plants. When known, these instances are noted in this report.

Plant Ownership Information

Plant ownership is primarily derived from the EIA-860 database. Ownership was then attributed to the appropriate holding company. For plants included in this report, only entities with at least a 20 percent ownership interest in a particular plant are listed. Smaller ownership interested were grouped as “Others.” Owners are listed in descending order by ownership percentage.

Pollution Control Information

Plants that have installed pollution controls since 2009 that might significantly reduce emissions of toxic pollution and plants that are currently constructing such equipment are recognized in this report. While an effort was made to investigate activities for all plants listed in this report, some meaningful actions may not be included. Furthermore, pollution controls or unit retirements may be planned at additional plants. These potential future actions are not indicated in this report due to uncertainty over when projects would be completed or units retired. The installation of the following types of pollution control equipment is recognized in this report when known: flue gas desulfurization, dry sorbent injection, activated carbon injection, and fabric filters.

Methodology

Industry Classifications

Covered sources report the North American Industry Classification System (NAICS) codes that apply to them and are classified by their primary sector in the TRI database. For simplicity, the industry sector names used in EPA's Toxics Release Inventory were adjusted in accordance with the table below. For each state, industries beyond the top five emitting sectors were grouped together and categorized as "Other."

| EPA Toxic Release Inventory NAICS Code & Industry Name | Revised Sector Name |
|---|-----------------------------|
| 311 Food/Beverages/Tobacco | Food & Beverages |
| 313 Textiles | Textiles |
| 315 Apparel | Apparel |
| 316 Leather | Leather |
| 321 Wood Products | Wood Products |
| 322 Paper | Paper Products |
| 323 Printing and Publishing | Printing & Publishing |
| 324 Petroleum | Petroleum Products |
| 325 Chemicals | Chemicals |
| 326 Plastics and Rubber | Plastics & Rubber |
| 327 Stone/Clay/Glass | Stone, Clay, & Glass |
| 3273 Cement | Cement |
| 331 Primary Metals | Primary Metals |
| 332 Fabricated Metals | Fabricated Metals |
| 333 Machinery | Machinery |
| 334 Computers/Electronic Products | Computers & Electronics |
| 335 Electrical Equipment | Electrical Equipment |
| 336 Transportation Equipment | Transportation Equipment |
| 337 Furniture | Furniture |
| 339 Miscellaneous Manufacturing | Miscellaneous Manufacturing |
| ZZZ No TRI NAICS code | Other |
| 2121 Coal Mining | Coal Mining |
| 2122 Metal Mining | Metal Mining |
| 2211 Electric Utilities | Electricity Generation |
| 4246 Chemical Wholesalers | Chemical Wholesalers |
| 4247 Petroleum Bulk Terminals | Petroleum Terminals |
| 562 Hazardous Waste/Solvent Recovery | Hazardous Waste |

Sources

U.S. ENVIRONMENTAL PROTECTION AGENCY, TOXICS RELEASE INVENTORY (TRI):

Description & Use: Certain electric generating facilities, along with facilities from other industries, report to the TRI. Electric generating facilities that combust coal or oil are required to report releases of designated pollutants to the TRI if the quantity of each pollutant released meets or exceeds specific thresholds. Releases include point source air emissions. Generally, the reporting threshold for electric generating facilities is 25,000 pounds or more of an individual pollutant. However, the threshold for certain persistent, bioaccumulative, and toxic (PBT) chemicals, such as mercury and mercury compounds, is significantly lower. The reporting threshold for mercury and mercury compounds is 10 pounds. Reporting thresholds are applied to each pollutant individually. Facilities that combust only natural gas are exempt from the TRI reporting requirements. The TRI data are self-reported by covered sources, and EPA does not require specific methodologies for measuring or estimating releases. Therefore, methodologies vary from source to source. The TRI served as the source for all emissions data referenced in this report. While the TRI may not reflect total U.S. or sector-level emissions, it covers most large stationary sources of toxic air pollutants and provides useful information on emissions trends.

Citation: U.S. Environmental Protection Agency. 2011. Toxics Release Inventory (TRI), 2009 Inventory Updated Dataset – Point Source Air Emissions. URL: <http://www.epa.gov/tri/tridata/index.html>. (Accessed June 2011 through TRI.NET application: <http://www.epa.gov/tri/tridotnet/index.html>).

U.S. ENVIRONMENTAL PROTECTION AGENCY, NATIONAL ELECTRIC ENERGY DATA SYSTEM v.4.10 (NEEDS):

Description & Use: EPA uses NEEDS as the basis for its IPM modeling efforts to project the impact of proposed policy changes. NEEDS contains information on the operating and emissions characteristics of most generating units in the U.S. NEEDS served as the basis for information on recently installed pollution controls included in this report. This information was checked against independent sources to verify the validity of NEEDS.

Citation: U.S. Environmental Protection Agency. 2010. NEEDS v.4.10 database. URL: <http://www.epa.gov/airmarkets/progsregs/epa-ipm/BaseCasev410.html>. (Accessed June 2011).

U.S. ENERGY INFORMATION ADMINISTRATION, FORM-860 ANNUAL ELECTRIC GENERATOR REPORT (EIA-860):

Description & Use: The database includes generator-level data for electric generating facilities, including ownership information and site addresses. This database served as the primary source for the ownership information included in this report, although additional sources were used to confirm this information when necessary.

Citation: U.S. Energy Information Administration. 2010. Form EIA-860 Annual Electric Generator Report, 2009. URL: <http://www.eia.gov/cneaf/electricity/page/eia860.html>. Accessed June 2011.

VARIOUS SOURCES:

Description: A variety of additional sources were consulted to confirm the status of state mercury regulations and the installation of pollution control equipment at individual plants since the 2009 TRI data were collected. Additional sources were used to confirm ownership data in some instances. For a full list of additional sources, please contact NRDC.