



Indiana's Dirty Power Plants

Power Plants: The Number One Polluter

Today, the nation is facing a health crisis from power plant pollution. Every year power plants spew billions of tons of pollution into our air. Nationally, 50 percent of electricity comes from coal,¹ but coal-fired power plants are responsible for the lion's share of dangerous pollution from the electric power industry. Within the electric power industry, these plants generate:

- 97 percent of deadly fine particle soot and sulfur dioxide emissions;
- 92 percent of smog-forming nitrogen oxide emissions;
- 86 percent of emissions of carbon dioxide, the primary global warming pollutant; and
- Almost 100 percent of toxic mercury emissions.

Moreover, power plants are responsible for more than 68 percent of the total annual emissions of sulfur dioxide, the primary ingredient of deadly fine particle pollution, from all sources, including cars and trucks.²

Hoosier State Air Pollution

From mercury contaminating our fish, to smog and soot causing asthma attacks and premature death, power plant pollution is taking its toll on Indiana.

Indiana's power plants are in the top five for emissions of soot, smog, mercury and global warming pollution – and that's why we need to lead the way in cleaning up.

Harming Your Health

Recent scientific studies by researchers affiliated with the American Cancer Society, the Harvard School of Public Health and other top universities and research institutions have made it possible for scientists working for the U.S. Environmental Protection Agency (EPA) to predict how many premature deaths, heart attacks, and other impacts are caused by power plant pollution.

Power plant pollution cuts short the lives of hundreds of Hoosiers each year

EPA's own consultants estimate that fine particle pollution from power plants shortens the lives of 887 Indianans each year. Indianans have the fifth highest risk of dying from power plant pollution in the country. Fine particle pollution from power plants also causes 123,098 lost work days, 845 hospitalizations and 21,532 asthma attacks every year, 1,274 of which are so severe they require emergency room visits.³

Leads to lung cancer and heart attacks

A recent scientific study by researchers affiliated with the American Cancer Society found that people living in the most polluted cities have approximately a 12 percent increased risk of cardiopulmonary death over those living in the cleanest areas of the country. Similarly, for lung cancer, there is approximately a 16 percent increased risk for those living in the more polluted cities.⁴ Based on EPA data, each year, 114 lung cancer deaths and 1491 heart attacks in Indiana are attributable to power plant pollution.⁵

Children at risk

Children are the most susceptible to the detrimental effects posed by power plant air pollution. In Indiana, 1,127,326 children live within 30 miles of a power plant, the area in which the greatest health impacts are felt.⁶ Additionally, researchers have found that infants in areas with high levels of particulate matter pollution face a 26 percent increased risk of Sudden Infant Death Syndrome and a 40 percent increased risk of respiratory death.⁷

Don't eat the fish

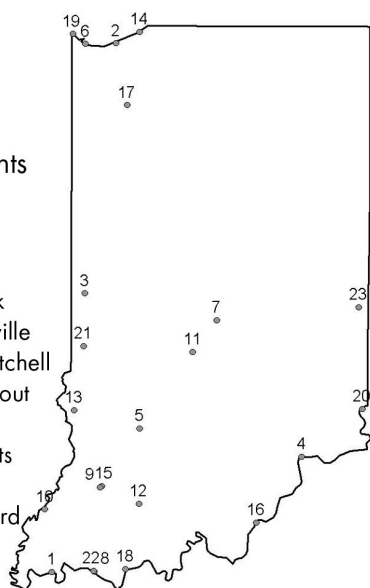
Power plants are responsible for 41 percent of the total mercury emitted by all known U.S. sources.⁸ Indiana has advised against consuming fish from ALL 35,673 miles of its rivers and 47,806 acres of its lakes due to the risks of mercury contamination.⁹ Mercury is a toxic heavy metal, which, when ingested, can cause serious neurological damage, particularly to developing fetuses, infants, and children. Children can be exposed to mercury in the womb or through breast milk if their mothers ingest mercury tainted fish or by consuming contaminated fish themselves. The neurotoxic effects of mercury exposure are similar to the effects of lead toxicity in children and include delayed development and cognitive deficits, language difficulties, and problems with motor function, attention, and memory.¹⁰

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Location of Power Plants in Indiana

Indiana Plants

- 1 AB Brown
- 2 Bailly
- 3 Cayuga
- 4 Clifty Creek
- 5 Crawfordsville
- 6 Dean H Mitchell
- 7 Elmer W Stout
- 8 FB Culley
- 9 Frank E Ratts
- 10 Gibson
- 11 HT Pritchard
- 12 Jasper 2
- 13 Merom
- 14 Michigan City
- 15 Petersburg
- 16 R Gallagher
- 17 RM Schafer
- 18 Rockport
- 19 State Line
- 20 Tanners Creek
- 21 Wabash River
- 22 Warrick
- 23 Whitewater Valley



Damaging Your Environment

Increased warming and weather disasters

The ten hottest years on record have occurred since 1980. Man-made carbon dioxide emissions are the probable cause for the rise in the earth's temperature and the increase in tornadoes, hurricanes, heat waves and flooding, according to the United Nations' Intergovernmental Panel on Climate Change.¹¹

Acid rain

Acid rain, formed primarily from power plant pollution, damages forests and causes lakes and streams to become acidic, killing fish. Acid rain also damages buildings, historical monuments and even cars.¹²

Forest and crop damage

Nitrogen oxide emissions are causing other harmful environmental impacts such as forest and crop damage from ozone, nitrogen over fertilization of estuaries, loss of fish and other aquatic species from acidification of streams and lakes, and reduced visibility because of regional haze.¹³

A top-five polluter

Indiana's power plants place it among the nation's top-five polluting states in the country. It has the second highest emissions of nitrogen oxides, the third highest emissions of sulfur dioxide, and the fourth highest emissions of both carbon dioxide and mercury. These excessive levels of pollution affect the citizens of the state, as well as surrounding areas.¹⁴

How to Clear The Air

For more than 30 years the oldest and dirtiest power plants have managed to avoid modern pollution controls. These plants, some of which were built as long ago as the 1940s and 1950s, are responsible for billions of tons of pollution each year. The EPA now estimates that more than half of the population of the United States – almost 160 million Americans – breathe and live in areas with unhealthy air. Fortunately, the technology exists to make these plants as clean as new plants. Cleaning up the oldest and dirtiest plants is the first step towards a cleaner and more responsible energy future for the United States. It's time to Clear the Air.

1. Electric Power Annual — 2002, DOE/EIA-0348(2002), December 2003. Table ES, page 6.

2. Emissions data from EPA: National Air Pollutant Emission Trends, 1990-1998, Appendix A: National Emissions (1970-1998) by Tier 3 Source Category and Pollutant <http://www.epa.gov/ttn/chieftrends/trends98/browse.html>; Emissions data from 2001 comes from EPA, from updates to the National Air Quality and Emissions Trends Report received from EPA in the form of spreadsheets; Power plant emissions shares for 2002 come from EPA's Continuous Emissions Monitoring System data, downloaded from the EPA web site at <http://www.epa.gov/airmarkets/arp/index.html>.

3. Abt Associates, "Power Plant Emissions: Particulate Matter-Related Health Damages and the Benefits of Alternative Emission Reduction Scenarios" June 2004.

4. C. A. Pope, et. al., Lung Cancer, Cardiopulmonary Mortality and Long-Term Exposure to Fine Particulate Air Pollution. Journal of the American Medical Association Vol. 287, no 9. - March 6, 2002. www.jama.ama-assn.org/cgi/content/abstract/287/9/1132

5. See Abt Associates, supra, note 3.

6. Clean Air Task Force, Children At Risk, How Air Pollution from Power Plants Threatens the Health of America's Children, May 2002. www.cleartheair.org

7. Woodruff, T. Grillo, J. and Schoendorf, K. 1997. The relationship between selected causes of post-neonatal infant mortality and particulate air pollution in the United States. Environmental Health Prospective, vol. 105, p 608-612.

8. Mercury data comes from the EPA's Hazardous Air Pollutant database.

9. USPIRG Education Fund, June 2003. Fishing for Trouble, How Toxic Mercury Contaminates Our Waterways and Threatens Recreational Fishing. www.cleartheair.org

10. U.S. EPA, 1997b. Mercury Study Report to Congress, Volume VII: Characterization of Human and Wildlife Risks from Mercury Exposure in the United States and Toxicological Effects of Methylmercury, National Academy Press, Washington DC, 2000. Available at <http://www.nap.edu/books/0309071402/html/>.

11. Woods Hole Research Center, The Warming of the Earth, <http://www.whrc.org/globalwarming/warmingearth.htm>

12. See Unfinished Business, Clean Air Task Force, October 2001. Available at www.cleartheair.org.

13. Hubbard Brook Research Foundation. Nitrogen Pollution: from the sources to the sea, 2002. Available at <http://www.hubbardbrook.org/hbrf/page.php3?subject=Publications>

14. U.S. EPA Green Book <http://www.epa.gov/oar/oaqps/gbook/> Data compiled by MSB Energy Associates. 2002 Mercury emissions calculated by MSB Energy Associates, analyzing EPRI estimated emission rates for 1999 and the heat input from CEMS data and calculating what that means in terms of 2002 mercury emissions based on the 2002 heat inputs.