Kansas' 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]

Sunflower State Air Pollution

Nearly 600 older, coal-burning power plants operate across the nation with little or no pollution controls. The toxins from Kansas' dirty power plants react with the state's climate and geography to produce unhealthy effects specific to Kansas. Power plant sulfur dioxide emissions contribute to hundreds of premature deaths in Kansas yearly. Airborne mercury contaminates our fish. Global warming fueled by power plant carbon dioxide emissions may increase tornadoes, flooding, and heat waves.

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 Kansans each year
EPA's own consultants estimate that fine particle pollution from power plants shortens the lives of 274 Kansans each year. Fine particle pollution from power plants also causes 37,743 lost work days, 274 hospitalizations, and 6,622 asthma attacks, 390 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, 2,826 lung cancer deaths and 38,200 heart attacks in the United States 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 Kansas, 316,011 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] Although Kansas doesn't currently have any fish consumption advisories for mercury, it doesn't mean the fish are safe to eat. Nearly every state surrounding Kansas has issued advisories advising against the consumption of fish from of their lakes and rivers due to 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 con-

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taminated 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]

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]

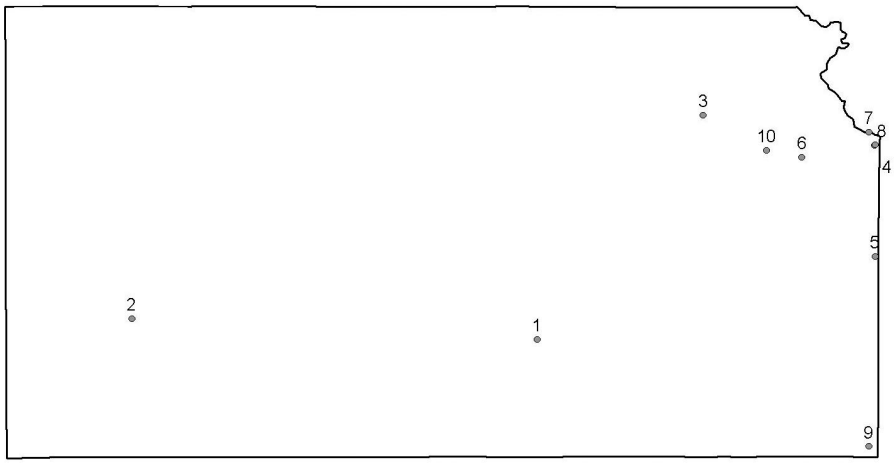
Forest and crop damage

Nitrogen oxides 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.[12]

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.

Location of Power Plants in Kansas



Kansas Plants

1 Gordon Evans
2 Holcomb
3 Jeffrey Energy Center
4 Kaw
5 La Cygne
6 Lawrence
7 Nearman Creek
8 Quindaro
9 Riverton
10 Tecumseh

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/chief/trends/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. Woodruf, 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. U.S. EPA. Update: National Listing of Fish and Wildlife Advisories as reported in Fishing for Trouble, How Toxic Mercury Contaminates Our Waterways and Threatens Recreational Fishing. USPIRG Education Fund, June 2003. 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. Hubbard Brook Research Foundation. Nitrogen Pollution: from the sources to the sea, 2002. Available at http://www.hubbardbrook.org/hbrf/page.php3?subject=Publications