

EARTHJUSTICE/EIP REPORT: DANGEROUS MERCURY POLLUTION FROM UNREGULATED CEMENT KILNS IN U.S. ABOUT TWICE AS HIGH AS LEVELS PREVIOUSLY PROJECTED BY EPA

EPA Ignored Problem For 10+ Years Even Though Some Kilns Emit More Mercury Than Power Plants; Report Focuses on Cement Kilns in AL, CA, IA, IL, MD, MI, MT, NY, OR, SC, TX and WA.

WASHINGTON, D.C. – July 23, 2008 – For more than a decade after Congress told it to curb dangerous mercury pollution from cement kilns across the nation, the U.S. Environmental Protection Agency (EPA) refused to take action. Now, a new study from Earthjustice and the Environmental Integrity Project (EIP) documents the consequences of the EPA's failure: Cement kilns emit mercury pollution – a threat to the health of pregnant women and children – at more than twice the level estimated as recently as 2006 by the EPA, which only started to collect data on the problem in 2007.

The unregulated pollution from cement kilns is emitted in or nearby many major U.S. urban areas and also within a few miles of such major bodies of water as the Chesapeake Bay, Lake Huron and the San Francisco Bay. Mercury pollution already has impaired rivers, lakes, and streams throughout the United States, making certain fish unsafe to eat. According to the Centers for Disease Control and Prevention, 8 percent of women of childbearing age in America already have mercury in their bodies at levels high enough to put their babies at risk of birth defects, loss of IQ, learning disabilities and developmental problems.

Entitled **“Cementing a Toxic Legacy? How EPA Has Failed to Control Mercury Pollution From Cement Kilns,”** the Earthjustice/EIP report outlines specific recommendations for EPA and state agency action based on the following key conclusions:

- Mercury emissions from cement kilns are almost twice as high as the agency has previously acknowledged, and in many states kilns are among the worst mercury polluters. EPA now estimates that cement kilns emit nearly 23,000 pounds of mercury each year, far more than the Agency's 2006 estimate of 11,995 pounds. .
- A relatively small number of cement plants that use extremely dirty raw materials and fuels are among the worst mercury polluters in their states and, in some cases, in the country. For example, some cement kilns release as much or more mercury as coal fired power plants.
- Since 1974, cement production has increased 15 percent, and further increases are projected for the future. Rising levels of cement production in the U.S. mean that the cement industry's mercury pollution will grow even worse if left unregulated.

Earthjustice staff attorney James Pew said: **“EPA's new data confirm that cement plants are among the worst mercury polluters in this country. EPA has refused to acknowledge this problem for more than a decade, and the mercury contamination in our food and waters has grown worse every year as a result. It is high time for EPA to do its job and make this industry clean up its toxic emissions.”**

Environmental Integrity Project Director Eric Schaeffer said: **“Action by the EPA is long overdue and America's health and public waters have suffered needlessly due to this foot dragging. Ten years after it was required to set standards for cement kilns, EPA finally got around to requesting basic information related to mercury emissions from nine of the major cement kiln companies operating in the U.S. EPA claims that it will use this information to finally propose mercury standards for cement kilns sometime in the summer or fall of 2008, but confidence in that timeline is low given all of the agency's stalling to date. Based on our new review of available data, it is now long past time for EPA to regulate an industry that releases nearly twice as much mercury into the air as the agency previously reported.”**

Marti Sinclair, chairperson, Sierra Club National Air Committee (Cincinnati, OH), said: **“EPA's mercury strategy has allowed polluters to contaminate our fisheries with mercury, then warn people off**

eating fish. Folks who ignore the warning or just don't know are imperiled. Those who avoid fish altogether are eating unhealthy substitutes instead. For Americans, eating fish has become damned-if-you-do and damned-if-you-don't. Only the polluters get let off the hook."

MORE ABOUT THE DATA FINDINGS

In 2007, EPA collected data from nine companies and released data for 51 non-hazardous waste burning kilns currently operating in the United States. The 2007 EPA collection requests were sent to the following companies: Ash Grove Cement Company (Overland Park, KS); CEMEX, (Houston, TX); California Portland Cement Company, (Glendora, CA); Essroc Cement Corp., (Nazareth, PA); Holcim (US) Inc., (Dundee, MI); LaFarge North America, Inc. , (Herndon, VA); Lehigh Cement Company, (Allentown, PA); Lonestar/Buzzi Unicem, (Bethlehem, PA.); and Texas Industries, Inc., (Dallas, TX).

Kiln-specific findings from across the U.S. include the following:

- The Ash Grove Cement Plant in **Durkee, Oregon** has the dubious distinction of being the worst mercury polluter of any kind in the country, emitting more mercury into the air than any power plant, steel mill or hazardous waste incinerator. In 2006 Ash Grove reported to the EPA's Toxic Release Inventory that it emitted 2,582 pounds of mercury. Based on information Ash Grove submitted to EPA in 2007, however, actual emissions may be as much as 3,788 pounds a year. Note that although it emits the greatest amount of mercury (more than double the amount of the next worst polluter), it has the third smallest production capacity of the kilns on the Top 10 Polluting Cement Kiln list.
- Lafarge North America, Inc., shows up on the Top 10 Polluting Cement Kiln list twice, at rank four and rank five with its plants in New York and Michigan. By Lafarge's own calculations the kiln in **Ravena, New York** emits 400 pounds of mercury per year.
- Lehigh's **Union Bridge, Maryland**, plant is located approximately 75 miles northwest of Baltimore. It is the fifth largest cement kiln in the United States, able to produce nearly 2 million tons of clinker annually. The Lehigh cement kiln at Union Bridge reported to TRI in 2006 emitting only 35 pounds of mercury pollution; but the data show that this kiln also has the capacity to emit as much as 1,539 pounds of mercury a year. This is particularly significant given the plant's proximity to the **Chesapeake Bay**.
- The largest concentration of cement manufacturing in the entire country is just outside of the **Dallas/Fort Worth metroplex in Midlothian, Texas**. Citizens of Midlothian are burdened by five plants operated by Holcim, Ash Grove and Texas Industries, all within a 6.5 mile radius of each other. Combined, these plants emit just under 200 pounds of mercury on an annual basis, and thousands of tons of other dangerous toxic air pollutants.
- In the San Francisco Bay Area, Hanson Permanente Cement operates a kiln in **Cupertino, California**. This kiln is located within a major residential area in close proximity to several Cupertino schools. It is also located within five miles of the **San Francisco Bay**, which is currently contaminated with mercury. The Hanson Permanente kiln reported emitting a staggering 494 pounds of mercury pollution in 2006 to the EPA's Toxic Release Inventory. EPA failed to include Hanson Permanente Cement in any of its information requests, leaving open the possibility that its mercury emissions could be even worse.
- The CEMEX kiln in **Davenport, California** is of similar concern. That kiln, located right beside homes and farms along California's coastline and only 40 miles north of the **Monterey Bay Sanctuary**, reported emitting 172 pounds of mercury pollution to the Toxic Release Inventory in 2006. The Davenport kiln is one of those for which EPA refuses to release data gathered in 2007.
- The Lafarge site in **Alpena, Michigan** is a five-kiln plant, and in 2006 was the nation's third largest cement plant. These kilns collectively reported emitting 360 pounds of mercury in 2006. The Alpena

cement plant is of particular concern because it sits on the banks of **Lake Huron** and in close proximity to residential areas of Alpena.

In a clear sign of the limitations of the initial EPA data, the federal agency released no data on one cement industry leader, CEMEX, which has claimed that the information EPA requested — information directly related to the amount of mercury it releases into our air and waters — is confidential business information. All of the data reviewed by the EPA was self-reported by the kiln companies. For a complete discussion of the data sources considered and methodology, see Appendix B of the Earthjustice/EIP report at www.earthjustice.org/cement.

RECOMMENDED ACTIONS

The Earthjustice/EIP report calls for the following steps to be taken:

- EPA must swiftly follow through on its commitments to propose and adopt a mercury standard for cement kilns.
- State regulatory agencies should regularly test cement kiln emissions for mercury.
- Continuous Emissions Monitoring Systems (CEMS) should be installed to measure mercury emissions at every kiln.
- State regulatory agencies should require cement kilns to install mercury pollution control devices.

UNDERSTANDING HEALTH DANGERS FROM MERCURY POLLUTION

The process for making cement often relies on fuels and raw materials that are high in mercury content. While the large quantity of mercury emissions from cement kilns is not widely known, it is hardly surprising. Just over 150 cement kilns operate in the United States and, each year, they “cook” thousands of tons of rock — primarily limestone — at more than 2,600 degrees Fahrenheit. To fuel this cooking process, cement kilns burn primarily coal. Both the rock and the coal contain mercury, a highly volatile metal that evaporates at room temperature. Virtually all the mercury in the coal and limestone is vaporized in the cement production process, and the vast majority of that mercury enters our air through the kilns’ smokestacks.

Mercury is a dangerous neurotoxin, interfering with the brain and nervous system. Exposure to mercury can be particularly hazardous for pregnant women and small children. During the first several years of life, a child’s brain is still developing and rapidly absorbing nutrients. Prenatal and infant mercury exposure can cause mental retardation, cerebral palsy, deafness and blindness. Even in low doses, mercury may affect a child’s development, delaying walking and talking, shortening attention span and causing learning disabilities. The National Academy of Sciences’ National Research Council estimated in a 2000 report that approximately 60,000 children per year may be born in the US with neurological problems due to *in utero* exposure to methylmercury. Mercury poses a threat to adult men, as well as women and children. In adults, mercury poisoning can adversely affect fertility and blood pressure regulation and can cause memory loss, tremors, vision loss and numbness of the fingers and toes.

ABOUT EARTHJUSTICE AND EIP

Earthjustice (www.earthjustice.org) is a non-profit public interest law firm dedicated to protecting the magnificent places, natural resources, and wildlife of this earth, and to defending the right of all people to a healthy environment. Earthjustice brings about far-reaching change by enforcing and strengthening environmental laws on behalf of hundreds of organizations, coalitions and communities.

The Environmental Integrity Project (www.environmentalintegrity.org) is a nonpartisan and nonprofit organization established in March 2002 to advocate for more effective enforcement of environmental laws. EIP was founded by Eric Schaeffer, who was director of the U.S. Environmental Protection

Agency's Office of Regulatory Enforcement. He resigned in 2002 after publicly expressing his frustration with efforts of the Bush Administration to weaken enforcement of the Clean Air Act and other laws.

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EDITOR'S NOTE: A streaming audio replay of the July 23, 2008 news event will be available on the Web at www.earthjustice.org/cement as of 6 p.m. EDT on July 23, 2008.