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UMass Amherst Political Economy Research Institute's Toxic 100 Names the Top Corporate Polluters of Air and Water in the U.S.

New report also examines corporations' environmental justice performance

AMHERST, Mass. – Researchers at the University of Massachusetts Amherst Political Economy Research Institute (PERI) have released updated “Toxic 100” lists of the top corporate air and water polluters in the United States using the most recent data available from the U.S. Environmental Protection Agency. Topping the list of air polluters are Alcoa and Dupont corporations, while Dow Chemical and American Electric Power top the list of water polluters.

The Toxic 100, which is available online at www.toxic100.org, also reports the extent to which air pollution burdens are imposed disproportionately on minority and low-income communities, revealing differences in firms' environmental justice performance. For example, the data reveals that while minorities make up only 36 percent of the U.S. population, they bear 69 percent of the air toxics risk from facilities owned by ExxonMobil.

“The Toxic 100 informs consumers, shareholders, lawmakers and communities which large corporations release the most toxic pollutants into our environment,” said James Boyce, professor of economics at UMass Amherst and co-director of PERI's Corporate Toxics Information Project. “We assess not just how many pounds of pollutants are released, but which are the most toxic. People have a right to know about toxic hazards to which they are exposed. Legislators need to understand the effects of pollution on their constituents.”

The Toxic 100 Air Polluters index is based on 2014 EPA analysis of air releases of hundreds of chemicals from thousands of industrial facilities across the U.S. The rankings take into account not only the quantity of releases and the toxicity of chemicals, but also the number of people exposed and transport factors—such as prevailing winds and the height of smokestacks—in order to characterize the potential chronic human health risk from airborne industrial toxics.

Based on the most recent available data from the EPA, the top five air polluters among large corporations are Alcoa, DuPont, Bayer, General Electric and Exxon Mobil. Since 2010 the Toxic 100 Air Polluters rankings have included large privately held firms, such as number eight Koch Industries, as well as the world's largest publicly traded corporations.

The Toxic 100 Water Polluters index is based on EPA analysis of water releases of hundreds of chemicals from thousands of industrial facilities across the U.S. The rankings take into account the quantity of chemicals released and also the toxicity of the chemicals in order to characterize the potential chronic human health risk from industrial toxics.

Based on the most recent available data from the EPA, the top five water polluters are Dow Chemical, American Electric Power, AES Corporation, Honeywell International

and Southern Company. American Electric Power, AES Corporation and Southern Company are primarily engaged in electrical power generation, while Dow and Honeywell manufacture chemicals.

Eight companies appear in the top 20 of both lists: General Electric, ExxonMobil, LyondellBasell Industries, Koch Industries, BASF, Rio Tinto, Dow Chemical and Eastman Chemical. Of the 32 companies appearing in one or both of the top 20 of either list, 25 are U.S.-owned corporations and seven are foreign-owned.

The data on toxic chemical releases come from the EPA's Toxics Release Inventory (TRI). The TRI is widely cited in press accounts that identify the top polluters in various localities. But reports based on TRI data alone have three limitations. First, raw TRI data is reported in total pounds of chemicals, without taking into account differences in toxicity, and pound-for-pound, some chemicals are more than one billion times more hazardous than others. Second, TRI data does not consider the numbers of people affected by toxic releases, such as the difference between facilities upwind from densely-populated urban areas and those located far from population centers. Finally, TRI data is reported on a facility-by-facility basis, without combining plants owned by one company to get an overall picture of corporate performance.

The Toxic 100 tackles these problems using the EPA's 2014 Risk-Screening Environmental Indicators (RSEI). In addition to TRI data, the EPA's RSEI includes toxicity weights for both air and water releases. For airborne industrial toxic pollution, the RSEI additionally includes air transport modeling and population exposure to provide the RSEI Score, a comprehensive picture of chronic human health risk. For water pollution, the Toxic 100 rankings are based on the RSEI Hazard, which is total pounds released weighted by chemical toxicity.

PERI adds up facility-by-facility RSEI data published by the EPA to rank companies.

When accessing the Toxic 100 lists online, users can view the details behind each company's RSEI rankings, including the names and locations of individual facilities owned by the corporation and the toxic chemicals emitted by those facilities. The web edition also provides a searchable database with toxic release information for all firms operating in the U.S., regardless of size or ownership.

"In making this information available, we are building on the achievements of the right-to-know movement," explains Michael Ash, professor of economics at UMass Amherst and co-director of the Corporate Toxics Information Project. "Our goal is to engender public participation in environmental decision-making, and to help residents translate the right to know into the right to a clean environment."

The complete Toxic 100 lists and their accompanying report can be found online [here](#).

Contact: Kim Weinstein, 703/229-2146, kweinstein@peri.umass.edu
Jared Sharpe, 413/545-3809, jsharpe@admin.umass.edu