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Mercury-Based Chlorine Production Exact's Hidden Costs on Society

Outdated Technology Seriously Damages Americans' Health and Economic Productivity

Washington, D.C., May 5, 2009 – Lowered IQ due to mercury pollution from outdated mercury-cell chlorine factories has cost the American economy millions of dollars in lost wages annually, according to a new Oceana report released today. This study reflects the first attempt to place a dollar value on the public health and economic costs of this industry's contribution to mercury pollution.

These factories, called chlor-alkali plants, produce chlorine and caustic soda with technology that causes mercury pollution of our air, water and food. This industry contributes to fish contamination which is the source of most human exposure to mercury. Frequent consumption of high mercury fish has been linked to a lower IQ in young children and heart disease in adults among other ailments.

"Using mercury to make chlorine doesn't make ecological or economic sense," said Simon Mahan, co-author and Pollution Campaign Analyst for Oceana. "Eliminating mercury pollution from chlor-alkali factories would reduce threats to our health and environment and benefit our economy," he added.

In the year 2000 alone the U.S. chlor-alkali industry emitted more than 12,000 pounds of mercury into the air, damaging public health and resulting in roughly \$24 million in lost economic productivity, according to the Oceana analysis released today entitled *Hidden Costs: Reduced IQ from Chlor-Alkali Plants Harms the Economy*.

The four chlor-alkali plants that still use mercury polluting technology include Olin Corporation facilities in Charleston, TN and Augusta, GA; a PPG Industries facility in Natrium, WV; and an Ashta Chemicals facility in Ashtabula, OH. In 2006, these four plants alone released more than 2,000 pounds of mercury into the air, resulting in an estimated loss of \$3.8 million in economic productivity that year (range \$1.5 million – \$17.8 million). Each of the "Foul Four" plants has individually cost society an estimated \$17 - \$24 million during the most recent decade for which data were available.

These cost estimates only include the lost economic potential from IQ declines due to mercury pollution. They do not include additional health-related costs associated with mercury exposure or other environmental costs due to environmental contamination. Thus, the total true costs are likely much higher than Oceana's conservative estimates.

Cleaner, energy-efficient membrane cell technology for the production of chlorine and caustic soda has been available since the 1970s. In fact, nearly 95 percent of current chlorine production in the U.S. now uses mercury-free technology.

Oceana has previously estimated that most of the costs of switching from mercury-based technology to membrane cell technology could be recovered within 5 years, allowing these companies to compete more effectively, conserve energy, prevent further mercury pollution and potentially save jobs. When added to the industry's costs of pollution control and wasted energy, the health-based costs to society estimated here tip the economic scales strongly in favor of conversion to mercury-free technology.

"We have heard a lot about the economic burden of switching to mercury-free technology from these companies" said co-author Dr. Kimberly Warner, Marine Pollution Scientist for Oceana. "But these hidden and damaging costs to children and society must be accounted for and reduced," she added.

To address this costly burden to the companies and the public, Oceana recommends that:

- Mercury-based chlor-alkali production facilities should immediately upgrade to mercury-free technology
- Mercury-based chlorine production should be prohibited by law to ensure that the conversion to mercury-free technology occurs faster
- The hidden costs of mercury pollution from chlor-alkali facilities, including damage to public health and the environment, must be addressed when quantifying the "economic burden" of switching to mercury-free technology
- Additional studies of the harm associated with mercury pollution must consider health and environmental costs, in addition to the costs due to inefficiencies of mercury use

These harmful mercury releases would be alleviated by *The Mercury Pollution Reduction Act of 2009*, a federal bill which now has 17 co-sponsors in the U.S. House of Representatives. This legislation, originally introduced in 2006 by then Senator Obama, would require a phase out of mercury-based technology for producing chlorine within two years.

For more information about mercury contamination and the hidden costs it exacts on America's health and economy, please visit www.oceana.org/mercury.

Oceana campaigns to protect and restore the world's oceans. Our team of marine scientists, economists, lawyers and advocates win specific and concrete policy changes to reduce pollution and to prevent the irreversible collapse of fish populations, marine mammals and other sea life. Global in scope and dedicated to conservation, Oceana has campaigners based in North America, Europe and South America. More than 300,000 members and e-activists in over 150 countries have already joined Oceana. For more information, please visit www.Oceana.org.