Health Group Weighs in on Public Health Impact of Regulating Mercury Emissions

By ACSH Staff — September 9, 2005

September 2005 -- New York, New York. The regulation of mercury emissions from coal-fired electric power plants is not likely to have a significant impact on public health, according to a new report by scientists associated with the American Council on Science and Health (ACSH), a non-profit public health organization.

The report, Regulating Mercury Emissions from Power Plants: Will It Protect Our Health? [1], comes just as the Senate is poised to vote on the Leahy-Collins resolution that would repeal the Bush Administration's controversial EPA rule on mercury emissions.

Earlier this year, the EPA promulgated regulations to limit mercury emissions from all coal-burning electric power plants in the US using a "cap-and-trade" approach, the same method employed to successfully reduce acid rain-causing emissions.

ACSH's report, based on a comprehensive peer-reviewed paper by Dr. Gail Charnley, finds that the reduction of mercury emissions from power plants, regardless of which of the considered approaches is used, is not likely to have an impact on the health of Americans. ACSH's conclusions are based on the following:

Mercury emissions are generally transported globally, making it difficult to determine the origin of mercury deposited in a particular locale. Most estimates indicate that anywhere from 20-80 percent of the mercury deposited domestically comes from non-US industrial sources, mainly from Asia. Further, very little of the emitted mercury gets deposited on the ground or in water, and only a fraction of that is converted to methylmercury -- the mercury compound of primary public health concern -- in a process that occurs naturally in microorganisms. The compound can then enter the aquatic food chain and accumulate in fish and other sea life. The consumption of fish is the primary means by which people are exposed to methylmercury. Methylmercury itself is not emitted from power plants.

Using values determined by the CDC, ACSH's report shows that the current levels of blood mercury in American women and children rarely exceed the EPA's recommended limits. The report also explains the safety margins built into EPA guidelines, which make the limits protective of even the most sensitive populations. Most importantly, while noting that methylmercury at high exposures is a neurotoxin, ACSH's report presents the evidence that current levels of methylmercury in fish have not been shown to cause harm to US fish consumers and are unlikely to do so.

Lastly, the report analyzes data from several studies indicating that even as mercury emissions have increased worldwide, the levels of mercury in fish have not really changed. In fact, several
studies have found no difference in mercury concentrations between fish caught in the early 1900s and fish caught in the late twentieth century.

"While methylmercury, at high levels of exposure, is indeed a potent neurotoxin, the amount American consumers ingest from eating fish does not pose a danger to health, even among children and pregnant women," says ACSH Medical Director Dr. Gilbert Ross. "The measures currently in effect are sufficiently protective, and those proposed to replace them are wasteful and will add nothing to benefit anyone's health."

The deadline for the Senate vote to send the "cap-and-trade" rule back to the EPA is Monday, although other issues, including the crisis in New Orleans, might delay the vote by several days.

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