Dec 13th, 2011

President Barack Obama
The White House
1600 Pennsylvania Avenue
Washington, D.C. 20500

Cc:
The Honorable Lisa P. Jackson
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: Broad Scientific Consensus in support for Mercury and Air Toxics Standards

Dear President Obama,

We, the undersigned physicians and scientists studying mercury in our biological and physical environment, write to affirm our belief that the Mercury and Air Toxics Standards (MATS) will protect the health of thousands of Americans each year.

We assert that it is well-documented that mercury and other air toxics cause serious human, wildlife and ecosystem health effects. During Congressional hearings the claim was made that there is no science to back up the health benefits that the U.S. Environmental Protection Agency (EPA) expects to achieve by requiring decreases of air toxics emitted from power plants. As mercury scientists and physicians, we strongly refute such statements.

Industrial emissions, especially from coal-fired power plants, are the leading source of atmospheric mercury in the U.S. Mercury from power plants can be as much as 95% reactive oxidized mercury which is rapidly deposited on to local soils and surface waters. It is established now that mercury that has recently been deposited from the atmosphere more readily accumulates in fish than other possible sources. The neurological development, particularly brain maturation, of fetus and young children are severely affected by methylmercury, the form of mercury that collects and concentrates in aquatic food chains.

EPA Science Advisory Board's findings of health benefits from decreasing methylmercury exposure due to our domestic air pollution as mentioned in the Mercury Risk Assessment report are based on a strong scientific record. Thus, we believe that there should be no change in the MATS. We also note that while the neurotoxicity of methylmercury to the young has been widely acknowledged, the effects on children and adults through exposure to all other forms of mercury have not been effectively publicized. Appended to this letter is a short list of published studies that show health effects of all forms of mercury.

Mercury has no biologically beneficial function; indeed, each atom that ends up in the body can be toxic to all types of cells. Mercury is such a potent toxin because it bonds very strongly to functionally important sites of proteins including enzymes, antibodies and nerve growth-cones that keep cells alive, "intelligent" and safe. Target enzymes, organs, or metabolic pathways vulnerable to mercury poisoning may change from cell to cell, person to person and in the same individual over time. Regardless, minimizing all mercury exposure is essential to improving human, wildlife and ecosystem health because ***exposure to mercury in <u>any</u> form places a heavy burden on the biochemical machinery within cells of all living organisms.***

Some of us study effect of mercury compounds on individual enzymes, cells and/or organs, and some of us study how mercury cycles through our waters, soils or atmosphere. We also represent physicians who actually treat patients, including children, with chronic pulmonary, cardiovascular, and neurological diseases caused by air pollution. We work each day to understand environmental hazards and protect the public health. We ask that you protect the Mercury and Air Toxics Standards. Doing so will improve public health and lower health care costs for all.

Sincerely,

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Janina Benoit, Ph.D.
**Mercury methylation biochemist**
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**Mercury aquatic food web ecologist**
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**Mercury and wildlife health expert**
Executive Director and Chief Scientist, Biodiversity Research Institute

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**Mercury oceanographer and biogeochemist**
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**Mercury microbiologist**
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Peter Wilk, M. D.
Executive Director
**Physicians for Social Responsibility**

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