

August 1, 2012

Illinois Pollution Control Board  
c/o John Therriault  
Assistant Clerk of the Board  
James R. Thompson Center  
100 W. Randolph  
Suite 11-500  
Chicago, Illinois 60601

PCB# 1918

**Re: Docket No. PCB 2012-126**

Dear Members of the Illinois Pollution Control Board:

As health professionals living and working in Illinois, we support the Multi-Pollutant Standard (MPS) adopted by the Illinois Pollution Control Board in 2006. By controlling power plant emissions of sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and mercury, the MPS helps protect the air we breathe, the local fish we eat, and the wildlife and natural spaces we love from harmful pollution. We are concerned by the present effort to weaken the MPS before the Illinois Pollution Control Board. We urge you to vote against any action eroding MPS standards.

Nationally, coal-fired power plants are the largest sources of SO<sub>2</sub> and mercury emissions, and are among the largest single source emitters of NO<sub>x</sub>. Emissions of these air pollutants impact human and ecosystem health in a number of ways. Exposure to mercury, a potent neurotoxin, can result in developmental delays (e.g. speech, motor, and memory skills) in children, and cause nervous system damage in adults. High levels of SO<sub>2</sub> and NO<sub>x</sub> can exacerbate respiratory symptoms in at-risk individuals (including children and the elderly), including asthma and COPD attacks. Wildlife and plant species are also impacted by the toxic effects of these pollutants, (e.g. reproductive impacts of mercury to wildlife, SO<sub>2</sub>-derived acid rain damage to foliage).

In addition to the health impacts of directly regulated chemicals, SO<sub>2</sub> and NO<sub>x</sub> are also precursors to other harmful pollutants such as fine particulate matter and ground-level ozone. Fine particulate matter (PM<sub>2.5</sub>) is a complex mixture of solid and liquid particles, and a very large proportion of measured PM<sub>2.5</sub> results from the chemical transformation of SO<sub>2</sub> and various NO<sub>x</sub> molecules in the atmosphere. Numerous scientific studies and authoritative panels have identified PM<sub>2.5</sub> as harmful to human health, with causal linkages found between short- and long-term exposures and premature mortality and cardiovascular effects. According to a 2010 report by the National Research Council, in 2005 alone, the annual health and related damages from particulate, NO<sub>x</sub>, and SO<sub>2</sub> cost the public \$62 billion (2007 USD). The vast majority (\$53 billion) of these costs were due to health damages associated with the transformation of SO<sub>2</sub> into PM<sub>2.5</sub>.

As it stands, the MPS is designed to require substantial reductions in the emission rates of SO<sub>2</sub>, NO<sub>x</sub>, and mercury. These reductions will allow for substantial gains in the public health of our state and surrounding regions, particularly for vulnerable populations. By maintaining the present MPS emission rate requirements for each of the pollutants, you will ensure that the health improvements behind the spirit of the law remain intact, and that the public does not bear the costs of polluter non-compliance. We applaud you for your decision to put the MPS in place six years ago, and we ask that you continue to show your support for this standard by voting against any effort to weaken its protective power.

Sincerely,

**Paul Brandt-Rauf**, DrPH, MD, ScD

**Susan Buchanan**, MD, MPH

Director

Great Lakes Center for Children's Environmental Health

University of Illinois at Chicago School of Public Health

**Robert Cohen**, MD, FCCP

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