

## ISEE Comments on U.S. EPA revision of Air Quality Standards for PM<sub>2.5</sub>

In August 2012, upon recommendation of the ISEE Policy Committee, ISEE submitted comments to Lisa P. Jackson, U.S. EPA Administrator, on EPA's proposal to revise the Air Quality Standards for Particle Pollution (Particulate Matter). (Docket ID No. EPA-HQ-OAR-2007-0492).

ISEE urged EPA to set the updated annual PM<sub>2.5</sub> standard considering the WHO guideline value, to maximize protection of public health. Read ISEE's letter below:



Administrator Lisa P. Jackson  
Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Attention Docket ID No. EPA-HQ-OAR-2007-0492

Subject: Comments on EPA's proposal to revise the Air Quality Standards for Particle Pollution (Particulate Matter) EPA-HQ-OAR-2007-0492.

Dear Administrator Jackson,

The International Society for Environmental Epidemiology (ISEE) would like to comment on the EPA's proposal to reduce the annual standard for PM<sub>2.5</sub> and appreciates the opportunity to do so. As the professional society whose members generated a substantial part of the scientific evidence on the health effects of particles, we have considerable expertise in this field. We would like to commend EPA for the excellent summaries of the scientific literature in your Integrated Science Assessment that was part of this rulemaking. We believe it captures well the state of the knowledge at the time of its closure, and that subsequent research only strengthens the evidence for serious health effects of PM<sub>2.5</sub> at low concentrations in the air. We would also like to commend EPA for its leadership role in the worldwide effort to reduce population's exposure to particulate matter and associated burden of disease. The USA NAAQS for particulate matter are an important international example and inspiration for other countries. ISEE realizes that current levels of particulate matter in the USA are markedly lower than in many countries around the world. By achieving these lower levels, a substantial number of premature deaths and

burden of disease has been avoided annually in the US population by past environmental policies.

In the proposed rule, EPA proposes to lower the annual PM<sub>2.5</sub> standard from 15.0 to within a range of 12.0 to 13.0 µg/m<sup>3</sup>. ISEE generally supports a lowering of the standard and considers this action to be a benefit to public health. Given current scientific evidence, a continued reduction of avoidable premature death and burden of disease from PM<sub>2.5</sub> exposure in the population can be attained this way.

ISEE notes, however, that the proposed lowered levels for the annual PM<sub>2.5</sub> standard under consideration by EPA are still higher than the WHO Air Quality Guideline for PM<sub>2.5</sub> set at 10 µg/m<sup>3</sup> in 2005. WHO noted in its assessment that "adverse effects on health cannot be entirely ruled out even below that level." Since then, an increasing amount of scientific evidence has accumulated, further documenting negative health effects below annual levels of 10 µg/m<sup>3</sup>.

ISEE agrees with your proposal "... to conclude that the current primary PM<sub>2.5</sub> standards are not requisite to protect public health with an adequate margin of safety." ISEE, however, does not agree with your proposed conclusion "... that the proposed revisions are warranted to provide the appropriate degree of increased public health protection." Based on the earlier (2005) WHO assessment and PM<sub>2.5</sub> guideline, and the scientific evidence accumulated since then, ISEE concludes that the proposed lowering of the annual PM<sub>2.5</sub> standard to a value in the range of 12.0 to 13.0 µg/m<sup>3</sup> cannot protect public health with an adequate margin of safety, as required by the Clean Air Act. Also EPA's own Regulatory Impact Assessment indicates that a substantial number of early death and other adverse health effect attributable to PM<sub>2.5</sub> exposure will remain in the US population at the proposed standard level. Moreover, ISEE notes the outcomes of the cost-benefit considerations of EPA's own RIA, indicating that a standard with an annual value of 11 µg/m<sup>3</sup> PM<sub>2.5</sub> would have better cost-benefit ratio than the value of 12 or 13 µg/m<sup>3</sup>. Any value below 12 µg/m<sup>3</sup> would be more in line with the WHO guideline at 10 µg/m<sup>3</sup> than the proposed 12-13 µg/m<sup>3</sup>.

Based on the available scientific evidence, ISEE urges EPA to set the updated annual PM<sub>2.5</sub> standard considering the WHO guideline value, so as to maximize protection of public health.

Sincerely,

Annette Peters, President

On behalf of the Executive Council of the International Society for Environmental Epidemiology