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January 16, 2020

Dr. Michael Honeycutt  
Chair, EPA Scientific Advisory Board  
Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

RE: ATS comments on SAB review of EPA's Mercury and Air  
Toxics Standards Rule

Dr. Honeycutt:

On behalf of the ATS Environmental Health Policy Committee, I appreciate the opportunity to comment on the draft letter written by the EPA Science Advisory Board (SAB) regarding the Agency's review of the Mercury Air Toxic final rule, and pending revisions of the final rule. Along with my ATS colleagues in the medical care and environmental health research communities, I share many of the concerns that SAB outlined in its draft letter.

I focus my comments two sections of the draft SAB letter. First, our committee agrees with the following recommendation in the letter:

**“For purposes of this or any future mercury regulation, EPA should instigate a new risk assessment, particularly a net effects risk assessment following the FDA model. It should include all relevant health outcomes for neonates, children and adults. It should focus on consumption of recreationally caught freshwater fish, taking into account all other fish consumption. This would be useful for both regulating limits on toxic chemicals as well as providing advice to consumers on fish consumption.”**

In making this recommendation, SAB has identified EPA's flawed analysis of the risk posed by mercury exposure, and has made appropriate recommendations for a comprehensive risk assessment following the FDA model. Our committee agrees with this recommendation, which is appropriate not only for mercury, but other hazardous pollutants.



Second, I focus the remainder of our committee's comments on the letter's discussion on "**Evidence for Benefits of PM Reductions at Low Concentrations.**" ATS members include many leading investigators on the respiratory and cardiovascular health effects of PM exposure. While we greatly appreciate SAB's noting the health benefits of PM reductions, the SAB discussion and recommendations in the letter understate the flaws in EPA's reconsideration of the MATS rule. Most alarmingly, the Agency has intentionally ignored the co-pollutant reductions in PM emissions, and accompanying health improvements, that would be achieved by reductions in mercury and air toxic emissions. Across both Republican and Democratic Administrations, EPA has recognized and included co-pollution reductions in the cost benefit analysis of NAAQS proposed rules. Ignoring the health benefits of co-pollutant reductions is a significant departure from previous policy, and results in a dramatic underestimation of the health benefits of environmental regulation. Ignoring the benefits of co-pollutant reductions is methodologically unsound, and not in the interest of the health of Americans, especially the health of children, who may suffer irreversible, lifelong health effects of pollution exposures during childhood. We strongly urge EPA to return to honest and accurate cost benefit estimating practices.

The terms "co-benefits" and "primary benefits" have little utility in policy cost benefit analyses. We would therefore recommend that SAB revise its recommendation that attempts to frame PM reductions as a "primary" benefit and methylmercury reductions as a "co-benefit" and instead include a revised recommendation that the analysis for this rule should include an accounting of **all relevant costs and benefits including PM and methylmercury reductions.** Further, EPA continues to float the concept of exposure thresholds for pollutants where no threshold has been described. EPA presented threshold models for discussion in several proposed rules, including for mercury and PM pollution. No exposure threshold level has yet been described for either PM pollution or mercury exposure. Until the Agency is prepared to present scientific rationale for exposure thresholds for PM and mercury, the Agency should refrain from basing cost estimates or regulatory policy based on artificial and scientifically unsupported threshold levels.

On this latter point, we recommend that the SAB letter be revised to clarify that the large body of epidemiological evidence investigating mortality risk associated with long-term PM exposures not only continues to demonstrate health risks at low concentrations, but in fact indicates that there may be an **increased mortality risk on a per unit basis at these lower concentrations.** Two studies were cited in the SAB letter, but many other studies provide similar results at the lowest levels of observed PM concentrations in both the US and Canada (see attached our comments on the PM NAAQS policy assessment). Virtually all of the reductions in PM as a result of the MATS rule would occur at in areas with ambient concentrations above levels observed to be associated with increased mortality risk. The recommendation "if it is decided to include benefits associated with PM<sub>2.5</sub>, the evaluation of low levels of PM<sub>2.5</sub> should be noted" should be revised to: (1) indicate that no evidence of a threshold for PM mortality risk has been identified in any published study, and, (2) only PM reductions below levels observed to be associated with increased mortality risk would merit being specifically noted in the cost benefit analysis.



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We recommend that the SAB letter remove the inclusion of the Cox (2012) article regarding the "hypothesis of hormesis" for PM. The manuscript has no support in the scientific literature. There is no place in a SAB review for unsupported assertions from a single individual that have not been tested in any scientific study. The letter should be revised to focus on published scientific studies and not editorial speculation.

The ATS appreciates the opportunity to comment on EPA's Science Advisory Board review of the MATS pending reconsideration. We hope our comments will be helpful as the board continues its work.

Sincerely,

Mary B. Rice MD  
Chair, ATS Environmental Health Policy Committee  
American Thoracic Society



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