

Public Hearing - EPA's MATS: Proposed Reaffirmation of the Appropriate and Necessary Finding, February 24, 2022, Docket ID No. EPA-HQ-OAR-2018-0794

Testimony of Alan H. Lockwood, MD, FAAN, FAAN, Emeritus Professor of Neurology, University at Buffalo Physicians for Social Responsibility and Ohio Clinicians for Climate Action

Thank you for the opportunity to testify about this important initiative.

My name is Alan Lockwood. I am a board-certified neurologist and am an emeritus professor of neurology at the University at Buffalo. I live in Oberlin Ohio.

As a neurologist I am all too aware of the devastating impact that mercury has on the developing nervous system as well as other critical organs. Accordingly, Physicians for Social Responsibility and Ohio Clinicians for Climate Action support the EPA's decision to reaffirm the Mercury Air Toxic Standards for Power Plants rule, or MATS, under the authority of the Clean Air Act.

The Clean Air Act is arguably one of the most effective and important of all public health measures. By curtailing the emission of mercury and other HAPs thousands of lives have been improved or spared due to reductions in leading causes of death due to disease including heart attacks, strokes, cancers, diseases of the respiratory system and others including quite possibly type 2 diabetes mellitus and neuro-degenerative diseases.¹

Mercury is an extraordinarily toxic heavy metal released by burning coal. We in Ohio are particularly vulnerable to mercury emissions because of the large number of coal-fired power plants along the Ohio and Great Miami Rivers and the shore of Lake Erie. Mercury is converted to methylmercury in the environment and enters the food chain where its concentration increases by many orders of magnitude. Methylmercury is easily absorbed in the gut, enters organs freely and crosses the placenta and is concentrated by the fetus. The developing brain is highly sensitive to mercury but other organs are not spared.^{2, 3} Careful epidemiological studies of populations with diets high in mercury show its adverse effects with clarity.⁴ Because of tribal subsistence and cultural fish consumption practices mercury burdens in this vulnerable group are as much as 10 times higher than in the general population.⁵ About a decade ago, when the original MATS rule was adopted, the EPA found that African-American women who were at the 90th percentile among subsistence fishers were expected have children that would suffer an IQ loss of just over 7 points.⁶ That is unacceptable.

There are substantial co-benefits associated with reaffirmation of the MATS rule that are due to reductions in the emission PM_{2.5}, perhaps the most dangerous of all air pollutants, and other air pollutants especially oxides of sulfur, oxides of nitrogen, a precursor to ground-level ozone, and other toxic metals.¹ The value in terms of reduced deaths and lowered disease burdens associated with these co-benefits can and should be included in the cost-benefit analysis required by the reaffirmation of MATS.

Reaffirmation of MATS for power plants will be a positive step in the EPA's mission to protect human health and the environment.

Thank you for your attention.

Reference List

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4. Grandjean P, Weihe P, White RF et al. Cognitive deficit in 7-year-old children with prenatal exposure to methylmercury. *Neurotoxicol Teratol* 1997;19(6):417-428.
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