

Senate Democratic Policy Committee Hearing

“An Oversight Hearing on the Administration’s Mercury Pollution Rule”

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Good afternoon. It is an honor to speak before you today about the development of EPA’s Clean Air Mercury Rule. My name is Susan West Marmagas and I am the Director of the Environment & Health Program at Physicians for Social Responsibility.

Today I am speaking as a member of, but not representing, the Children’s Health Protection Advisory Committee (CHPAC), a federal advisory committee that advises the Administrator of the Environmental Protection Agency by offering scientific review, guidance and technical assistance on children’s environmental health. As defined by EPA, the CHPAC is

“a body of researchers, academicians, health care providers, environmentalists, children’s advocates, professionals, government employees, and members of the public who advise EPA on regulations, research, and communications issues relevant to children.”¹

The CHPAC is comprised of a broad swath of children’s health experts, all decisions are made by consensus, and every member was appointed or re-appointed by the current administration, myself included.

I would like to provide a short history of the development of the Clean Air Mercury Rule under discussion today. The Clean Air Act Amendments of 1990 required EPA to study the environmental and health effects of hazardous air pollutants (HAP) from coal-fired power plants and to determine whether it should be deemed “appropriate and necessary” to regulate them under the HAP scheme. As a result of settlement agreements after EPA failed to meet its deadlines for completing the determination for mercury, EPA submitted its findings to Congress in 1997 (Mercury Study Report to Congress). In 2000, EPA determined that it was “appropriate and necessary” to designate mercury as a hazardous air pollutant and began the process necessary to regulate it under the “Maximum Achievable Control Technology” (MACT) control standard prescribed under the Clean Air Act. In December 2003, EPA released its proposed MACT standard, but also proposed a de-designation of mercury from power plants as a hazardous air pollutant, thereby allowing EPA to propose to regulate mercury using a “cap-and-trade” approach unprecedented for air toxins. Both proposals were made available for public comment during 2004, attracting over 680,000 comments to the docket (the most comments ever

¹ http://yosemite.epa.gov/ochp/ochpweb.nsf/content/whatwe_advisory.htm

for an air rule). On March 15, 2005 EPA announced its final rule – the de-listing of mercury from power plants from the list of hazardous air pollutants and regulation of mercury using the “cap-and-trade” approach.

Now I would like to turn to the role EPA’s own Children’s Health Protection Advisory Committee took in this rulemaking process because it is indicative of EPA’s lack of response to scientific expertise on this issue. Beginning in January 2004, the CHPAC took up consideration of the proposed mercury from power plant rule. We reviewed the science on the health effects to children from mercury exposure, extensively questioned William Wehrum, General Counsel to EPA’s Office of Air and Radiation, about the EPA’s proposed regulations to control mercury emissions from power plants, and examined the EPA’s proposed preamble to the rule.

In our initial January 26, 2004 letter to Administrator Michael Leavitt, we outlined the significant health implications of low-dose methylmercury exposure for children. Based on our review of the extensive scientific record of toxicological and medical research on this subject, including an authoritative report by the National Research Council of the National Academy of Sciences, the CHPAC determined the following:

- Exposure to methylmercury in the womb can cause adverse developmental and cognitive effects in children, even at low doses that do not result in effects in the mother²;
- Prenatal exposure from maternal consumption of fish can also cause impairments later on in the developing child. Recent epidemiologic studies have found that children exposed to even low levels of mercury before birth experience subtle symptoms of neurologic damage. Specific effects include poor performance on neuro-behavioral tests, particularly on tests of attention, fine motor function, language, visual-spatial abilities (e.g., drawing) and memory.³
- Infants and children have on-going dietary exposures to methylmercury. Children and infants are sensitive to mercury’s effects because their nervous systems continue to develop until about age 20.⁴
- According to CDC’s second *National Report on Human Exposure to Environmental Chemicals*, almost 8 percent of women of child bearing ages (16-49) have levels of mercury that exceed what is considered safe for a fetus.⁵

Since this letter was written, continuing research in this field suggests that the actual number of infants exposed to methylmercury *in utero* at levels exceeding the EPA’s safe

² U.S. EPA, *America’s Children and the Environment*, 2003.

³ Toxicological Effects of Methylmercury. National Academy Press, Washington, DC 2000.
<http://www.nap.edu>.

⁴ U.S. EPA. 1997b. Mercury Study Report to Congress, Volume VII: Characterization of Human and Wildlife Risks from Methylmercury Exposure in the United States. EPA-452/R-97-009.

⁵ Schober SE, et.al. Blood mercury levels in US children and women of childbearing age, 1999-2000. *JAMA* 2003;289(13):1667-1674.

reference dose may be much higher when data on maternal cord blood levels are also considered.⁶

Based on the CHPAC's review of the health effects science and the proposed rule, the Committee raised a number of key findings in our first letter⁷ that we would continue to raise unsatisfactorily with the Agency over the next year:

- “This proposed action does not go as far as is feasible to reduce mercury emissions from power plants, and thereby does not sufficiently protect children.”
- “From our understanding, the unique vulnerabilities of children, infants and women of child-bearing age were not adequately considered in the development of the EPA's proposed rules...we strongly recommend that EPA, when finalizing the rule, take into greater consideration the health impacts on children and women of child-bearing age in as practicable a manner as possible given existing information”
- “Should EPA decide to move mercury regulations to Section 111, thereby changing the definition of mercury from power plants as a hazardous air pollutant, we are concerned about the unintended consequences of this re-classification for regulating mercury at the state level.”
- “We recommend that EPA evaluate the possibility that hot spots could result and that the proposed regulation should be written to ensure that existing hot spots are reduced and no new ones created.”
- We seek an integrated analysis from EPA with respect to whether emissions reductions under either of these proposals are the most child-protective, timely and cost effective.” (including available technologies, costs, health implications, economic benefits)
- “We would like EPA to share the results of this integrated analysis with CHPAC for further consideration so that we may better advise EPA on the most child-protective regulatory options.”

In the Agency's response to the CHPAC, Jeffrey Holmstead, EPA's Office of Air and Radiation (OAR) Director, stated that he believed EPA's strategy to be “the most cost effective and environmental beneficial”. He also stated that other cap-and-trade programs have not led to the creation of hot spots, but did not offer conclusive evidence or analysis that EPA had eliminated the risk of methylmercury hot spots in its regulation. Holmstead did not respond to the CHPAC's request for additional modeling or other impact analysis assessing the effect of the rule on children's health, nor did EPA respond to the CHPAC's request for integrated analysis on technology, costs, children's health impacts, or economic benefits. Instead, Director Holmstead concluded that he looked “forward to working with [the CHPAC] in the coming months to address the issues outlined in the letter.”

⁶ Mahaffey KR, Clickner RP, Bodurow CC., Environ Health Perspect. 2004 Apr;112(5):562-70. <http://ehp.niehs.nih.gov/members/2003/6587/6587.html>

⁷ January 26, 2004 from the CHPAC to Administrator Michael Leavitt.

Upon further reiteration of our concerns, and our request for meetings with senior agency leadership, in two subsequent letters in June 2004 and November 2004, we received little additional responsive action from the Agency. A letter from Stephen Page in the Office of Air Quality Planning and Standards within the Office of Air and Radiation stated that “if it is determined that EPA will conduct additional analyses, we will make them available for public comment prior to the finalization of the rule.”

Deputy Assistant Administrator Stephen Johnson met with the CHPAC in October 2004 and solicited our input and advice on upcoming new information to be released by the Agency, namely the Notice of Data Availability. In our response to Johnson’s request, we sent our fourth, and final, letter to the Agency on January 5, 2005. Despite our repeated requests, no integrated impact analysis was ever provided to the CHPAC. In our final letter to the EPA, we reiterated our insistence that they produce additional analysis, particularly as it relates to impacts affecting child health, as well as our recommendation that the Agency “develop a comprehensive health benefits analysis” that utilized a conservative approach and fully incorporated the substantial scientific evidence on transport, chemistry, deposition, bioaccumulation, consumption patterns, dose-response, and local impacts.

Three weeks before the release of the final rule, OAR Director Holmstead agreed to meet with the CHPAC. In the meeting on February 24, 2005, he stated that the Agency did not need to do specific analysis on children’s health because the entire rule is about and for children. He also argued that several other key children’s health concerns, in his opinion, were more important for the Agency to address, namely lead exposures and indoor air exposures to children living in developing countries, and that mercury does not rise to the same level of concern. In response to our concerns about hot spots, Holmstead stated that EPA did not believe that hot spots would result, but that they had not undertaken any new analysis to support this conclusion. When asked about an integrated analysis that included children’s health impacts, Holmstead promised that this analysis would be in the final rule.

In conclusion, the concerns raised by the EPA’s child health advisors were largely dismissed by the Agency in completing its rule-making on mercury emissions from power plants. The agency did not conduct a comprehensive analysis on children’s health impacts, although they did include a health benefits analysis in the final rule that was never made available for public comment prior to finalization of the mercury rule. The Agency never undertook an integrated analysis to assess technologies, costs, health impacts and economic benefits of more stringent reductions. And, in conclusion, as indicated in Mr. Holmstead’s comments to the CHPAC in February 2005, the Agency downplayed or ignored the significant threat of mercury to children’s health even in the face of persistent, evidence-based concerns voiced repeatedly by the leading children’s health experts in the country.

Thank you again for this opportunity. I would like to ask that the four CHPAC letters, EPA’s written replies, the members of the CHPAC, and a summary of the National Research Council findings on methylmercury be included as attachments to my testimony.