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a project of Frontiers of Freedom

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U.S. Senator Malcolm Wallop (ret.), Chairman

Environmental Protection Agency
EPA Docket Center (EPA/DC)
Air and Radiation Docket and Information Center, 6102T
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Attention Docket ID No. OAR-2002-0056

April 26, 2004

Re: Comments of the Center for Science and Public Policy

Dear Sirs:

The Center for Science and Public Policy (“Center”) submits these comments with respect to the proposed “National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units” published at 69 Fed. Reg. 4652 (Jan. 30, 2004) (“hereafter “Mercury NOPR”). The Center is a project of the Frontiers of Freedom Institute, a non-profit organization. The Center draws upon the most current scientific literature and knowledgeable scientists to help lawmakers, policy makers, and the media distinguish between scientific findings that appear agenda-driven and engineered to produce certain results, and those based on acceptable science principles and techniques.

The Mercury NOPR proposes alternative methods of regulation of mercury from electric generating stations. Each of these alternatives will have the effect of requiring the electric utility industry to install highly expensive new controls for the purpose of reducing mercury emissions from coal and oil-fired powerplants. The Center does not comment on whether any of these proposals are preferable from a regulatory standpoint versus the others. Instead, the purpose of the Center’s comments is to demonstrate that, from a scientific standpoint, there is questionable basis to regulate mercury emissions from powerplants at all. Science shows that powerplant mercury controls will not produce any measurable health and welfare impact.

Much of the public debate concerning possible mercury regulation seems to assume that the need to regulate mercury emissions from powerplants has already been determined and is now a closed issue. That is not the case, as a brief review of the history of the issue will show.

Section 112(n) of the 1990 Clean Air Act (CAA) Amendments directed EPA to study the reasonably anticipated public health hazards caused by Hazardous Air Pollutant (HAP) emissions from electric utility steam generating units and to promulgate control standards for utilities only if

the study showed that such standards were “appropriate and necessary.” Section 112(n) was based on the House version of the CAA Amendments and was adopted in conference in preference to the Senate provision. Rep. Oxley, one of the House conferees, explained to the House that the conferees did not want EPA to regulate utility HAP emissions unless a comprehensive study showed there was a sound scientific basis to do so:

As we all know, the utility industry has been singled out for regulation under the acid rain provisions. The utility industry may also face additional controls for NO [x] emissions for ozone control, and revised PM-10 controls. All of these programs will result in substantial reductions in emissions of conventional and potentially hazardous air pollutants. Even without all of these reductions in air pollution, the health risks from emissions of hazardous air pollutants from powerplants are vanishingly small, as EPA has repeatedly recognized.

Under the existing section 112 of the Clean Air Act, EPA has addressed the question whether additional regulation of powerplants is necessary to control air toxic emissions to protect the public health. EPA, thus far, has studied several substances for which emissions data and some indicator of toxicity exist: arsenic, beryllium, cadmium, hexavalent chromium, formaldehyde, and radionuclides. EPA found that additional regulation of emissions of these substances from powerplants was unnecessary. For some other substances listed in S. 1630, such as mercury and other volatile substances, little scientific evidence exists about either emissions rates or effects on public health or welfare. Under the conference agreement adopting the approach that the House included in its bill, these and other scientific issues will be examined, and regulations will be imposed only if warranted by the scientific evidence.

1990 CAA Leg. Hist. 1177 (Oct. 26, 1990) (Statement of Rep. Oxley).

Thus, CAA §112(n) was intended to allow EPA to regulate HAP emissions from utilities only if a scientific study “clearly establish[es] that emissions of any pollutant, or aggregate of pollutants, from such units cause a significant risk of serious adverse effects on the public health.” *Id.* To make clear that EPA could regulate utility HAP emissions only if a scientific study demonstrated that these emissions caused a significant risk to public health, §112(c)(6), which allows EPA to promulgate MACT standards for sources of seven specific pollutants including mercury, was revised to specifically exempt utilities. *Id.*

Representative Oxley also described the differences between the Senate and House versions of §112(n):

With respect to air toxics generally, the Senate and House bills included provisions that differed substantially with respect to scientific studies, timing, and regulatory requirements. The House

provision required that the EPA Administrator perform a 3-year study of the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units and report the results of that study to the Congress.

On the other hand, the Senate provision was the result of a complex, and ultimately unsatisfactory, set of negotiations. Unlike the House provision, scientific studies were not to serve as the basis for regulation, but simply were to be included in the docket of the regulatory process leading to regulations. Under the Senate provision, regulations for the control of particulates and mercury would have had to be promulgated no sooner or later than 5 years after enactment.

Rather than accept the Senate provision, the conference favored an approach that adopted the basic House provision. The provision did contain two constructive elements found in the Senate provision; a direction to the National Institute of Environmental Health Sciences to conduct a study on a mercury threshold below which adverse effects on human health are not expected to occur and the requirement that EPA study mercury emissions from all sources. The conferees agreed to the House provisions because of the logic of basing any decision to regulate on the results of scientific study and because of the emission reductions that will be achieved and the extremely high costs that electric utilities will face under other provisions of the new Clean Air Act amendments.

Id.

EPA completed its utility HAPs study and released it to Congress and the public in February 1998. Under the direction of Administrator Carol Browner, in a Federal Register notice dated December 20, 2000, EPA decided that, pursuant to CAA §112(n), regulation of utility HAP emissions, including mercury, is “appropriate and necessary.” Despite the extensive study process, EPA was able to find only that fish consumption is the primary pathway for human and wildlife exposure to mercury and that there is a “plausible link between emissions of mercury from anthropogenic sources (including coal-fired utility units) and methylmercury in fish.” 65 Fed. Reg. 79825. Based on this “plausible link,” EPA found that regulation of mercury emissions from powerplants was “appropriate.” EPA found that regulation of mercury emissions under CAA §112(n) was “necessary” because EPA determined that there was no other mechanism under the CAA to effectively regulate such emissions.

EPA’s “appropriate and necessary” finding, however, was not final agency action. A federal court found that the EPA finding was not ripe for review until after it promulgates regulations. See *Utility Air Regulatory Group, Petitioner v. Environmental Protection Agency*, 2001 U.S. App. LEXIS 18436 (D.C. Cir. 2001). Thus, whether there is a sufficient scientific basis to find that mercury regulation is “appropriate” remains an open issue in the present rulemaking. Indeed, EPA has explicitly reopened in the present rulemaking the issue of whether mercury regulation is “necessary” under CAA §112(n) or whether there are alternative statutory mechanisms to regulate mercury.

Contrary to EPA's December 2000 finding, it is not "appropriate" to regulate mercury emissions from powerplants because there is no firm scientific basis to conclude that utility powerplant emissions endanger the public health or welfare. However, the continued misinformation surrounding debate over mercury regulations is creating a real and serious danger to public health by alarming consumers away from myriad nutritional benefits of fish intake.

We direct your attention to several White Papers that serve as literature reviews supporting our comments herein. Summaries follow, and the full papers can be reviewed at www.scienceandpolicy.org.

EPA Mercury MACT Rulemaking Not Justified by Science. There appears to be no scientific basis to conclude that utility power plant emissions of elemental mercury are significant or endanger the public health or welfare upon grounds of emissions sources, transport and deposition patterns, or toxicity and epidemiological studies. In light of EPA's finding and review of the scientific literature, regulation of emissions of elemental mercury from U.S. power plants more stringent than co-benefits—the amount of mercury concurrently removed by the processes that remove sulfur dioxide (SO₂) and nitrous oxide (NO_x), varied by coal type—seems arbitrary and capricious on the basis of health risks.

Analysis of the Sierra Club's Alarmist Claims About the Health Impacts of Mercury. Alarmists in some government agencies and their drivers among highly-funded special interest environmental groups offer no convincing scientific evidence that Americans face any real mercury-induced health threat from current fish consumption, while their own misinformation may seriously harm public health. Their sensationalized claims in the media are based on little more than questionable research, often non-transparent data sets and highly subjective and sensational interpretations. They appear to discount the most recent research findings, which strongly challenge their claims. Their proposed policy prescriptions for stringent regulation of US coal-powered electricity generating plants would provide no claimed benefits while inflicting enormous societal costs, especially on minorities, the elderly, the poor, women and children. This should be of particular concern to advocates for the health and welfare of women, children and the elderly because the crucial dietary benefits of fish consumption are being needlessly jeopardized.

Misuse of Rainwater Mercury Data In National Wildlife Federation's Cycle of Harm Report. The National Wildlife Federation (NWF) appears to have misinterpreted scientific data and presented both inappropriate and incorrect data analysis in support of arguments presented in their "National Recommendations for Eliminating Mercury Pollution" (pp 7-8 of Cycle of Harm). Also of serious concern, NWF's conclusions seem to start from a preconceived concern with exposures to mercury rather than being based on an impartial scientific evaluation of available measurements, as well as on the state of current scientific knowledge on the natural cycling of mercury in the environment. For these reasons, the NWF's recommendations are not scientifically credible. Owing to its highly public release to the popular media without a proper vetting by the scientific community, the report may lead to unwarranted actions by policy-makers, regulators, and the public. To date, the mercury concentrations measured in rainwater from all over the U.S. are neither unexpected nor at harmful enough levels to warrant the dramatic and extreme conclusions given in NWF's report.

Also, attached are (1) a letter (11-29-2000) to EPA from former EPA RfD/Reference Concentration Work Group co-chairs Dr. Kenneth Poirier and Dr. Michael Dourson alerting EPA that the Faroe Islands studies are not the proper choice for determining a methylmercury RfD; and (2) a published paper in which the same authors [M.L. Dourson et al., *NeuroToxicology* 22 (2001) 677-689] critically examine EPA and NAS for their choice of the Faroe study and the underlining assumptions utilized in the selection of specific uncertainty factors in establishing a methylmercury RfD.

An April 8, 2004 Wall Street Journal editorial "The Mercury Scare" highlighted some of the issues being raised by those that have chosen to politicize the debate (see attachment). The follow-on letters to the editor identify key problems with some of the studies being used to justify mercury controls. For example, one of the studies had confounding effects of PCBs and DDT embedded in the results that rendered it inappropriate for judging the lone effects of exposure to methylmercury.

We further note for the record that the various alarming claims about over 600,000 newborns each year in the United States being at risk of mercury intoxication is based only on an EPA conference presentation by Kathryn Mahaffey in January 2004 and is a troublesome misrepresentation of the actual NHANES data (<http://www.epa.gov/waterscience/fish/forum/2004/agenda.htm>).

In sum, the Center urges EPA to withdraw its rulemaking at the present time. The rulemaking would create severe regulatory constraints on the use of coal for the production of electricity, increasing energy costs throughout the economy without materially improving the public health.

Sincerely,

Robert Ferguson
Executive Director