



PO Box 218
Riderwood, MD 21139-0218
www.progressiveregulation.org

January 3, 2005

Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: Proposed National Emissions Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources, Electric Utility Steam Generating Units: Notice of Data Availability, 69 Fed. Reg. 69865 (December 1, 2004).

Docket ID: OAR 2002-0056

The Center for Progressive Regulation (CPR) submits the following comments, including attachments, regarding EPA's above-referenced Notice of Data Availability (NODA) with respect to its proposed Clean Air Mercury Rule (CAMR) (published January 30, 2004 and supplemented March 16, 2004). The attachments are comprised of three articles, authored by CPR Member Scholars: Lisa Heinzerling and Rena I. Steinzor, *A Perfect Storm: Mercury and the Bush Administration*, 34 ENVIRONMENTAL LAW REPORTER 10297 (2004); Lisa Heinzerling and Rena I. Steinzor, *A Perfect Storm: Mercury and the Bush Administration, Part II*, 34 ENVIRONMENTAL LAW REPORTER 10485 (2004); and Catherine A. O'Neill, *Mercury, Risk, and Justice*, 34 ENVIRONMENTAL LAW REPORTER 11070 (2004).

The Center for Progressive Regulation is a nonprofit research and educational organization of academics specializing in the legal, economic, and scientific issues that surround federal regulation. CPR is committed to informing the public about scholarship that envisions government as an arena where members of society choose and preserve their collective values. CPR rejects the idea that government's only function is to increase the economic efficiency of private markets.

Although CPR believes that there are numerous issues that must be addressed with respect to Part II of EPA's NODA, "Electric Utility Sector Modeling and Hg Speciation,"

the comments that follow focus more narrowly on Part III, “EPA’s Proposed Revised Benefits Assessment.”

I. EPA’s Proposed Revised Benefits Assessment

At the most fundamental level, EPA’s proposed revised benefits assessment appears to suffer from the same flaw that undermined its initial benefits assessment for the CAMR: while EPA proposes to account for the costs and benefits of the Maximum Achievable Control Technology (MACT) and cap-and-trade alternatives *as proposed* by EPA in its January 30, 2004 proposed rule, EPA fails to consider whether a more protective rule might produce an even more favorable accounting of costs and benefits. As Professors Heinzerling and Steinzor document, this failure stands in stark contrast to the current practice of the Office of Management and Budget’s Office of Information and Regulatory Affairs in implementing Executive Order 12866.ⁱ Moreover, as numerous commenters have pointed out, EPA’s proposed approaches rest on dubious scientific and legal footing; a legally defensible rule would in fact require much more stringent reductions in mercury emissions from coal-fired utilities. Against this backdrop, EPA’s failure to consider the costs and benefits of a more stringent rule is particularly egregious.

Second, as EPA now concedes, it cannot accurately assess the benefits of mercury emissions regulation without considering the independent benefits of reducing the adverse effects of mercury contamination.ⁱⁱ However, in order to produce an accurate accounting, EPA must not define narrowly the benefits at issue, i.e., EPA cannot consider only a subset of the direct effects on human health (and then only those that are quantifiable or monetizable).ⁱⁱⁱ Instead, EPA must consider broadly the direct and indirect effects on human health and well-being. Included within this broader definition are those effects felt not only by individual humans but also by relevant groups (e.g., adverse impacts on the various Ojibwe and other tribes’ ability to continue important traditional, cultural and religious practices). EPA must also consider the effects on ecological health. CPR thus urges EPA to refer to those tribal and other commenters, e.g., the Forest County Potawatomi Community^{iv} and the Fond du Lac Tribe,^v that have knowledge of and are uniquely positioned to speak to the nature and extent of the adverse effects of mercury contamination.

Finally, EPA does not appear to contemplate any assessment of the distribution of the costs and benefits of the CAMR and more protective alternatives. However, as Professor O’Neill demonstrates, various subpopulations’ different circumstances of exposure mean that the adverse effects of mercury reductions that are delayed and/or diminished will not be distributed equally.^{vi} Rather, the harms will be visited disproportionately on American Indian tribes and their members – especially those in the Great Lakes states, where there is a likelihood of “hot spots” under the EPA’s proposed cap-and-trade approach – and on other communities of color and low-income groups. Indeed, it is clear from the preamble to the proposed CAMR that the EPA is well aware of *who* it is that will be adversely affected by a more lenient rule.^{vii} In order to fulfill its obligations under Executive Order 12898 regarding environmental justice – as well as its obligations under

the federal trust responsibility, treaties, and various other legal doctrines – EPA must assess and address the distributive implications of its proposed rule.

II. EPA’s Estimates of Reductions in Mercury Exposure Associated with the CAMR

Even working within the narrowly framed revised benefits assessment proposed by EPA, numerous issues arise. CPR hereby incorporates by reference the arguments elaborated in the attached articles insofar as they speak to the questions raised by the NODA. In particular, CPR draws EPA’s attention to the discussion and sources cited by Professor O’Neill regarding the biological, chemical, and physical processes relevant to determining mercury exposure for those in the upper Great Lakes. Additionally, CPR would like to address Part III.F of the NODA, “Step 4 of EPA’s Revised Benefits Methodology: Fish Consumption and Human Exposure.” Again, note that by focusing its comments, CPR does not mean to suggest that this is the only step in EPA’s proposed method that warrants critique.

As EPA notes, consumption of fish is the primary pathway for human exposure to methylmercury. As such, two sets of factors become important to determining human exposure: those describing the concentration of methylmercury in fish tissue and those describing fish consumption practices for humans.

Methylmercury Concentration

In the NODA, EPA indicates that it is considering looking to the National Study of Chemical Residues in Lake Fish Tissue (also referred to as the National Fish Tissue Study (NFTS)), given its concern that data from the EPA’s National Listing of Fish Advisories (NLFA), which is collected by state agencies, may be “biased.” Specifically, EPA argues that the fact that states generally collect fish tissue mercury data from (a) “areas of increased angling activity,” and (b) “areas of suspected contamination” means that this data may “overestimate exposure to anglers and their families.” This concern is largely misplaced. First, from a public health perspective, it is entirely appropriate to sample from areas likely to be fished, i.e., “areas of increased angling activity,” in order to determine the methylmercury concentration in species likely to be consumed by humans. To prefer a random sampling method (as undertaken in the NFTS) is to misfocus the relevant inquiry. If the waterbodies sampled are not fished by humans, then humans are not going to be exposed via fish in those waterbodies. The effect, of course, is to dilute the relevant value for mean methylmercury concentration in fish tissue, resulting in an estimate of exposure that is inaccurate and thus scientifically unsound. On a related note, it makes sense to consider, additionally, the concentration in the tissue of fish caught in areas once favored by humans but no longer fished due to advisories warning of contamination. Because humans would fish in these areas *but for* unaddressed contamination, it is reasonable to set environmental standards at levels protective of consumption here. Second, although some states and tribes initially began their data collection efforts with waterbodies that they believed to be contaminated, it should be kept in mind that many states and tribes have been gathering this data for some time, and have now sampled broadly and extensively from the waterbodies within their

respective jurisdictions. In fact, CPR urges the EPA to consult with the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) about data they have gathered that documents methylmercury concentration in the tissue of locally consumed species at levels greater than suggested by state or federal data.^{viii}

Fish Consumption Rates and Practices

EPA states in the NODA that it is seeking information on fish consumption rates by different affected populations, particularly in the eastern half of the United States. CPR refers EPA to the analysis of various groups' fish consumption practices conducted by Professor O'Neill in the attached article and to the fish consumption rates for the various Ojibwe and other Great Lakes tribes cited therein. CPR also refers EPA to the discussion and studies in the report of the National Environmental Justice Advisory Committee, *Fish Consumption and Environmental Justice*.^{ix}

EPA asks specifically whether the fish consumption rates used in the Water Quality Criterion^x or produced in the Peterson, et al., study^{xi} are appropriate for assessing the effects on, *inter alia*, tribal populations. In the first place, CPR emphasizes that the only ones with the knowledge to respond to this question are the affected tribes themselves. Thus, if EPA is to produce an accurate and defensible assessment, it must pose this question directly to the various tribes. Moreover, EPA should honor its commitment to consult with tribes on a government-to-government basis on issues, such as this, that affect tribal rights and resources.

Although CPR defers to tribes' individual responses to the above question, it nevertheless notes that the fish consumption rates used by the Water Quality Criterion (produced by the national CSFII study) and produced by the local Peterson, et al., study are markedly lower – more than an order of magnitude lower – than the fish consumption rate produced by a 1993 GLIFWC survey of tribal spearers (189.6 to 393.8 grams/day in the spring) and the fish consumption rate adopted by the Leech Lake Band, one of the Minnesota Chippewa Tribe members (227 grams/day). These differences and their implications are elaborated in the attached article by Professor O'Neill. Further, a host of other aspects of tribal members' different fish consumption practices (e.g., “acute” consumption in accordance with seasonal or cultural practices; different average meal size; different species consumed) are relevant to an assessment of exposure and must be considered by EPA. Several of these aspects are discussed in the attached article by Professor O'Neill; in addition, CPR refers EPA to discussions by tribal commenters such as the Fond du Lac Tribe.^{xii} As a general matter, in assessing the effects on tribal populations, EPA should eschew data from studies that are national in focus (such as the CFSII study) and/or are non-tribally conducted (such as the Peterson, et al., study), in favor of studies of the relevant tribal population *conducted by* the tribe/the relevant inter-tribal association (or at least suggested by the tribe in consultation). Such a preference would produce more accurate and therefore scientifically defensible results. In this vein, CPR finds EPRI's suggested fish consumption rates^{xiii} particularly ill conceived. EPRI purports to construct “local” fish consumption rates, but does so by weaving together a host of assumptions that simply do not comport with actual local practice,^{xiv} that serve

chiefly to underestimate exposure (e.g., EPRI assumes a fish methylmercury concentration of 0.12 mg/kg methylmercury), and that work backward from NHANES data on blood mercury levels to fabricate likely consumption rates for each state – a highly questionable method in the face of numerous empirical studies documenting actual local consumption rates.

Finally, CPR notes that EPA needs to account for the fact that the tribal consumption rates described in the Peterson, et al., study may reflect current consumption levels that are artificially low. As the Peterson study itself notes,^{xv} some tribal members may have already altered their fishing and fish consumption practices to some degree in view of the fish consumption advisories issued by the states and the tribes. To the extent this is the case, the fish consumption rate that is generated by a survey such as that conducted by Peterson does not reflect what tribal members *would* consume, were the fish not contaminated with mercury. Patrick West, et al., termed this the "suppression effect:" that is, the fish consumption rate revealed by surveys in these instances reflects a "suppressed" rate of consumption.^{xvi} This point applies with particular force to tribes, who have treaty guarantees to a certain level of consumption. Even if tribal members have had to forego fish recently because fish have been allowed to become contaminated, they are entitled not to do so; thus environmental standards should be set to protect consumption at the higher, treaty-guaranteed level of consumption, not the lower, suppressed level of consumption. Again, tribes will be uniquely positioned to be able to identify and account for suppression effects for their populations; as such, tribally conducted studies or tribally interpreted data are to be preferred.

CPR urges EPA to give careful consideration to these comments and to the points elaborated at greater length in each of the attached articles.

Respectfully submitted,

Catherine A. O'Neill
Member Scholar, Center for Progressive Regulation and
Associate Professor, Seattle University School of Law
900 Broadway
Seattle, WA 98122
oneillc@seattleu.edu

ⁱ Lisa Heinzerling and Rena I. Steinzor, *A Perfect Storm: Mercury and the Bush Administration, Part II*, 34 ENVTL. L. REP. 10485, 10485-86 (2004).

ⁱⁱ *Id.*

ⁱⁱⁱ *See*, FRANK ACKERMAN & LISA HEINZERLING, PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING (2004).

^{iv} Forest County Potawatomi Community, Comments, OAR 2002-0056-2829.

^v Fond du Lac Tribe, Comments to be submitted to CAMR NODA, Docket OAR 2002-0056.

^{vi} Catherine A. O'Neill, *Mercury, Risk, and Justice*, 34 ENVTL. L. REP. 11070, 11075-79, 11087-106 (2004).

^{vii} *Id.* at 11107.

^{viii} Telephone conference with Neil Kmiecik, Biological Services Director, Ann McCammon Soltis, Policy Analyst, and Adam DeWeese, Environmental Biologist, Great Lakes Indian Fish and Wildlife Commission, Sept. 30, 2004.

^{ix} NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL, FISH CONSUMPTION AND ENVIRONMENTAL JUSTICE 21-61, TABLE 1 (2002).

^x 69 Fed. Reg. 69877, n.46, Dec. 1, 2004, *citing* Water Quality Criterion, 69 Fed. Reg. 1345, Jan. 8, 2001.

^{xi} 69 Fed. Reg. 69877, n.44, Dec. 1, 2004, *citing* Dan E. Peterson, et al, *Fish Consumption Patterns and Blood Mercury Levels in Wisconsin Chippewa Indians*, 49 ENVL. HEALTH 53 (1994).

^{xii} Fond du Lac Tribe, *supra* note v.

^{xiii} EPRI, Comments, OAR 2002-0056-2578.

^{xiv} *See, e.g.*, Fond du Lac Tribe, *supra* note 5.

^{xv} Peterson, et al., *supra* note x at 56.

^{xvi} Patrick West, et al., *Michigan Sports Anglers Fish Consumption Survey: Supplement I, Non-Response Bias and Consumption Suppression Effect Adjustments* (School of Natural Resources, University of Michigan, Ann Arbor; Natural Resources Sociology Research Lab, Technical Report No. 2 (1989)).