

January 10, 2020

Written Statement for the Teleconference of the Executive Committee of the EPA Science Advisory Board, 1/17/20

On behalf of the Union of Concerned Scientists (UCS), I submit this comment to the Environmental Protection Agency (EPA) Science Advisory Board in anticipation of its meeting to discuss four workgroup reports on agency regulations to define the scope of waters federally regulated under the Clean Water Act, its proposed Mercury and Air Toxics Standards (MATS) rule, its Strengthening Transparency in Regulatory Science rule, and its proposed Safer Affordable Fuel-Efficient (SAFE) Vehicles rule. UCS is a science-based nonprofit working for a healthy environment and a safer world. Our organization combines independent scientific research and citizen action to support innovative, practical solutions and secure responsible changes in government policy, corporate practices, and consumer choices.

First, I would like to commend the SAB workgroups on their thorough reviews of all four rules in a short period of time with little support from EPA Administrator Wheeler. The four reports include aspects that demonstrate that the agency has been issuing environmental regulations without sufficient scientific, technical, and economic analysis to justify its decisions. For the WOTUS rule, the SAB found that the proposal “neglects established science” showing the connectivity of waters, including groundwater to wetlands and adjacent water bodies. For the SAFE rule, the SAB found that the economic models used by the EPA to underpin the regulation were inappropriate. For the transparency rule, the SAB found that the restriction of studies from EPA’s consideration would be “inconsistent with the scientific method that requires all credible data be used to understand an issue” in addition to being “cumbersome and impractical.” Finally, the SAB included reference to advances in scientific understanding of the negative effects of mercury pollution that were omitted from EPA’s latest MATS proposed action.

As the SAB further considers these issues, we reiterate the critical importance of its adherence to the best available science and rejection of misleading or damaging diversions. It is essential that the SAB’s final letters communicate the importance of the agency’s use of the best available science as it makes decisions that impact environmental and public health.

EPA’s Transparency Rule Is Beyond Repair

We support the SAB workgroup’s comments that the strengthening transparency rule ignores key considerations and that EPA has not articulated a problem that would be solved with this rule. As the SAB notes, the proposal “could be viewed as a license to politicize” the science that underlies EPA regulations.¹ UCS has jointly submitted comments on this draft report with Earthjustice which urge the SAB to include in its final letter a recommendation that EPA not finalize a rule that has received substantial and well-reasoned pushback from its advisors and the broader scientific community.

EPA’s Proposed Light-duty Vehicle Greenhouse Gas Standards for Model Years 2021-2026

¹ U.S. EPA Science Advisory Board (SAB). 2019. Science Advisory Board (SAB) Consideration of the Scientific and Technical Basis of EPA’s Proposed Rule Titled *Strengthening Transparency in Regulatory Science*, October 16, [https://yosemite.epa.gov/sab/sabproduct.nsf/ea5d9a9b55cc319285256cbd005a472e/8a4dabc3b78f4106852584e100541a03/\\$FILE/Science%20and%20Transparency%20Draft%20Review_10_16_19_.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/ea5d9a9b55cc319285256cbd005a472e/8a4dabc3b78f4106852584e100541a03/$FILE/Science%20and%20Transparency%20Draft%20Review_10_16_19_.pdf), at 1.

UCS concurs with the SAB draft report's broad finding that "there are significant weaknesses in the scientific analysis of the proposed rule" and appreciates the board's effort to strengthen the woefully inadequate science behind the proposal. UCS has jointly submitted to the Board additional comments, together with a number of other organizations, detailing some of the specific data and analytic issues the SAB should consider as part of its assessment and recommendations to the Agency—some of the key issues are summarized briefly below.

UCS concurs with the SAB draft report's finding that the Volpe model utilized by the Agency in its analysis is fundamentally flawed. It does not comport with basic economic theory, yielding, as the SAB notes, "implausible results" which can fundamentally shift not just the magnitude of the impacts assessed but the direction (positive or negative) of those impacts. While the SAB draft report highlights many ways in which the Agency can correct some of the flaws in this model, we submit that the Agency has not provided a thorough explanation for the decision to abandon its long-standing modeling tools (ALPHA and OMEGA) developed specially for this purpose and urge the SAB not just to assess the flaws in the modeling tools selected but to emphasize that EPA must more carefully justify its choice of such tools.

In its draft report, the SAB has largely omitted discussion of the technology costs assumed by the Agency, claiming that an analysis of such review may be "beyond the scope" of review. While there may be limitations to the SAB's ability to dissect the costs associated with each and every technology, it is certainly within the purview for the SAB to examine many of the errors in compliance costs associated with flaws in models used. For example, detailed comments by UCS and others which noted that the Volpe model does not apply technologies based on cost-effectiveness, as it does with the Agency's own OMEGA model.² As a result, the compliance costs are artificially inflated by a model that is based on a faulty algorithm which abides neither by industry practice nor common sense. These concerns were raised by EPA technical staff³ and ignored in the proposal—the SAB should clarify in its report an evaluation of these complaints, recommend remedies to the Agency, and request review of any revisions to the model(s), given their primary consequence to the evaluation of any proposal.

Finally, the SAB provided a significant discussion of "willingness to pay" in its draft report, but UCS believes that the report misrepresents the Agency's prior assessment of consumers' willingness to pay and that the SAB should consider the historical evidence for any assumption of a manufacturer's willingness to deploy technology in response to any assumed willingness to pay in its discussion. In contrast to the SAB's statement that manufacturers assumed consumers would be willing to pay for fuel efficiency technologies which have a payback time of 3 years, the TAR analysis from EPA assumed no technology deployed with such payback, and NHTSA's analysis assumed technology deployment with just a 1-year payback in absence of regulation, both of which are substantially lower than the 2018 NPRM value of 2.5 years. SAB's discussion of this change and its effect on the baseline assumptions should be amended, and it would be prudent to press the Agency for its rationale for such a change given the historical evidence. While the SAB reflects on the experimental evidence of consumers' willingness to pay, missing from the discussion is any assessment of manufacturers' deployment in response to such willingness, perceived or actual. The record is quite clear that, absent regulation, manufacturers have not applied the numerous technological advances in vehicle technology, but rather to increases in performance (including improvements to safety and acceleration, or increased cargo capacity).⁴ The SAB should clarify that the Agency's new assumption that manufacturers will reduce greenhouse gas emissions and improve fuel

² Union of Concerned Scientists. 2018. "UCS MY2021-2026 NPRM Technical Appendix," Docket ID No. EPA-HQ-OAR-2018-0283-5840, at 32.

³ Charmley, William. 2018. E-mail to Chandana Achanta, June 18, 2018. Docket ID No. EPA-HQ-OAR-2018-0283-0453, attachment 2 ("EPA Further Review of CAFE Model & Inputs, June 18, 2018").

⁴ 77 *Federal Register* 62843-44 (2012).

economy absent regulatory pressure is both novel and unsupported by the historical record, skewing the results of EPA's cost-benefit analysis.

The SAB's draft report underscores the degree to which EPA's proposed rule ignores evidence and relies on novel and unjustifiable rationale to roll back the nation's strongest climate policy. It is paramount that SAB urge EPA to ensure that any new analytical approaches deployed in any final action are based on established, rigorous science and have been subject to public comment and expert review.

EPA's Proposed Action Relating to the Mercury and Air Toxics Standards Demands Attention

UCS appreciates the SAB's decision to look critically at this proposed action by EPA, which threatens to have a significant negative effect on public health, both directly and by establishing damaging precedent. It is imperative that the SAB elevate the best available science in its recommendations to EPA on the proposed action. The SAB must also avoid introducing uncertainty on issues reflecting long-standing best practice.

There have been significant advances in research, understanding, and quantification of the damaging effects of mercury pollution since the EPA's 2011 analysis was conducted, upon which the agency's proposed action still relies. The SAB rightly introduces critically important research published since that time; the SAB should be sure to reflect that best available science in its recommendations to EPA.

The SAB must also work to correct—not further muddy—the EPA proposal's attack on long-standing legal, economic, and regulatory precedent on cost-benefit analysis.⁵ As a result of this attack, the proposal as it currently stands could have far-reaching consequences for many other public health protections. Underpinning the EPA's action is a proposed shift in how the agency evaluates the costs and benefits of public health protections, a change which would greatly diminish the categories of benefits that the agency will consider. Formalizing this proposal would be deeply damaging to public health, while tilting the balance firmly in favor of industry. UCS vehemently disagrees with the EPA's approach, and urges the SAB to ensure that its recommendation regarding the consideration of benefits and co-benefits *corrects* the EPA, not confuses the issue further. With its current recommendation to refer to PM_{2.5} as the "primary" benefit, methylmercury exposure as the "co-benefit," and lack of position on whether PM_{2.5} benefits should be included at all, the SAB has erred. The SAB must call for PM_{2.5} to be included as a benefit without distinction, and that all such benefits be directly considered in the EPA's proposed action. The SAB should also recommend that the EPA fully incorporate unquantified effects as opposed to its current arbitrary and inadequate approach.

As an example of UCS's further concerns surrounding some of the treatment of science and resulting recommendations found in the draft document, UCS also recommends that SAB remove discussion of the idea of hormesis for particulate matter pollution in the report. There is a little legitimate scientific evidence of such effects in environmental pollutants, and none with regard to particulate matter. The EPA, with the input of its Clean Air Scientific Advisory Committee, just completed a review of the science on particulate matter and health via the National Ambient Air Quality Standards and did not include any consideration of hormesis.⁶ If such a fringe scientific view is going to be raised in this

⁵ Union of Concerned Scientists. 2019. *Technical comments on the National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review*. Cambridge, MA. Online at www.regulations.gov/document?D=EPA-HQ-OAR-2018-0794-1177.

⁶ U.S. EPA. 2019. *Integrated Science Assessment (ISA) for Particulate Matter (Final Report, 2019)*. Washington, D.C. Online at <https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=347534>

document, the SAB should in its final letter, specify whether this is a consensus opinion or one of a single or minority of its members, given that it diverges from mainstream scientific understanding.

EPA Changes to SAB's Review Process Are Harmful

Administrator Wheeler's December 2019 decision to change the process by which the SAB determines the nature of its review of EPA regulatory actions will give the administrator and chair unprecedented control over the SAB's workload and do so without opportunities for public comment.⁷ These closed door conversations will hamstring the SAB's ability to provide timely independent, critical feedback on EPA's decisions as required under the Environmental Research, Development, and Demonstration Authorization Act (ERDDAA).⁸ This, in addition to the recent trend of providing consultations rather than full consensus reports, are troubling changes to established procedures that have ensured the strength and credibility of the SAB over time.⁹

The Public Counts on the SAB to Actively Hold EPA Accountable

Finally, UCS recommends that the SAB hold public meetings more regularly. The teleconferences scheduled in January 2020 were rescheduled twice this fall, delaying the opportunity for the public to view the draft reports which has meant less time for the agency to incorporate SAB feedback into iterations of these regulatory actions. Public access to information is at the heart of the Federal Advisory Committee Act by which the SAB is governed. According to General Services Administration data, the SAB met fewer times in 2019 in at least two decades.¹⁰ The Board serves an important role in making sure the Administrator has access to strong, objective scientific advice as he endeavors to take on a variety of science-based tasks. The SAB has a long history of serving a critical role to the agency and the public relies on this body to hold the agency accountable. Thus, it is also important that as the SAB membership changes, members are held to continued conflict of interest evaluations and recusals when deemed necessary to ensure objectivity in the advice given to the administrator and the best available science is able to inform the public health protections for which EPA is responsible.

Thank you for the opportunity to submit comments on these critically important draft reports.

Sincerely,

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⁷ Reilly, S. 2019. Wheeler's Science Advisory Board Revamp Plan Sparks Concerns. *E&E News*, December 10. Online at www.eenews.net/greenwire/stories/1061775673/.

⁸ U.S. Congress. 1978. *Environmental Research, Development, and Demonstration Authorization Act*. 1978. Public Law 95-477, 95th Congress, October 18.

⁹ Reed, G. 2019. EPA Might Be Using Its Advisors to Do Away With Protective Science Guidelines, *The Equation (blog)*, July 26. Online at <https://blog.ucsusa.org/genna-reed/epa-might-be-using-its-advisors-to-do-away-with-protective-science-guidelines>.

¹⁰ General Services Administration (GSA). 2020. GSA Federal Advisory Committee Act (FACA) Database. Online at www.facadatabase.gov/FACA/FACAPublicPage.