



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C. 20460**

**OFFICE OF THE ADMINISTRATOR
SCIENCE ADVISORY BOARD**

August 30, 2021

MEMORANDUM

SUBJECT: Formation of the 2021 Clean Air Scientific Advisory Committee (CASAC) Particulate Matter (PM) Panel

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The Clean Air Scientific Advisory Committee (CASAC or Committee), which is comprised of seven members appointed by the EPA Administrator, was established under section 109(d)(2) of the Clean Air Act (CAA or Act) (42 U.S.C. 7409) as an independent scientific advisory committee. The CASAC provides advice, information and recommendations on the scientific and technical aspects of air quality criteria and National Ambient Air Quality Standards (NAAQS) under sections 108 and 109 of the Act. The CASAC is a Federal advisory committee chartered under the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C., App. Section 109(d)(1) of the CAA requires that the Agency carry out a periodic review and revision, where appropriate, of the air quality criteria and the NAAQS for “criteria” air pollutants, including particulate matter (PM).

This memorandum addresses the set of determinations that were used in forming the 2021 CASAC PM Panel including:

1. The type of review body that will be used to conduct the review, and the nature of the review;
2. The types of expertise needed to address the general charge;
3. Financial conflict of interest considerations, including identification of parties who are potentially interested in or may be affected by the topic to be reviewed;

4. How regulations concerning “appearance of a lack of impartiality,” pursuant to 5 C.F.R. § 2635.502 apply to members of the panel; and
5. Other considerations that might affect the objectivity if members of the panel; and
6. How individuals were selected for the panel.

DETERMINATIONS:

1. The type of review body that will be used to conduct the review, and the nature of this review.

An ad hoc expert panel of the CASAC will provide independent advice through the chartered CASAC on EPA’s updates to the science assessment and policy assessments that will support the Agency's reconsideration of the December 2020 decision to retain the NAAQS for PM.

2. The types of expertise needed to address the general charge.

On June 25, 2021, the EPA SAB Staff Office announced in a Federal Register Notice (86 FR 33703-33704) that it was forming a panel to review and provide independent expert advice through the Chartered CASAC on EPA's updates to the science assessment and policy assessment supporting the agency’s reconsideration of the December 2020 decision to retain the PM NAAQS. To form the panel, the SAB Staff Office sought public nominations of nationally and internationally recognized scientists with demonstrated expertise and research in the field of air pollution related to criteria pollutants, in the following fields, especially with respect to PM: Air quality and climate responses, atmospheric science and chemistry, toxicology, controlled human exposure studies, epidemiology, biostatistics, exposure assessment/modeling, risk assessment/modeling, and visibility impairment.

3. Financial conflict of interest considerations, including identification of parties who are potentially interested in or may be affected by the topic to be reviewed.

(a) Identification of parties (or class of parties) whose financial interests may be affected by the topic to be reviewed: The principal interested and affected parties for this topic are: research institutions; makers of air quality monitoring or emissions control equipment; and various industry sectors (for example, fossil fuel-fired electricity generation) that are significant sources of PM emissions and are affected by the current or any revised NAAQS for PM.

(b) Conflict of interest considerations: For Financial Conflict of Interest (COI) issues, the basic 18 U.S.C. § 208 provision states that: “An employee is prohibited from participating *personally or substantially* in an official capacity in any *particular matter* in which he, to his knowledge, or any person whose interests are imputed to him under this statute has a *financial interest*, if the particular matter will have a direct and predictable effect on that interest [emphasis added].” For a conflict of interest to be present, all elements in the above provision must be present. If an element is missing the issue does not involve a formal conflict of interest; however, the general provisions in the appearance of impartiality guidelines must still apply and need to be considered.

(i) Does the general charge to the panel involve a particular matter? A “particular matter” refers to matters that “...will involve deliberation, decision, or action that is focused upon the interest of specific people, or a discrete and identifiable class of people.” It does not refer to

“...consideration or adoption of broad policy options directed to the interests of a large and diverse group of people.” [5 C.F.R. § 2640.103 (a)(1)]. A particular matter of general applicability means a particular matter that is focused on the interests of a discrete and identifiable class of persons, but does not involve specific parties [5 C.F.R. § 2640.102(m)].

The activity of this CASAC Panel will qualify as a *particular matter of general applicability* because the resulting advice will be part of a deliberation, and under certain circumstances the advice could involve the interests of a discrete and identifiable class of people but does not involve specific parties. That group of people constitutes those who are involved with organizations facing regulatory decisions related to the release of or exposure to PM.

(ii) Will there be personal and substantial participation on the part of the panel members?

Participating personally means direct participation in this review. Participating substantially refers to involvement that is of significance to the matter under consideration. [5 C.F.R. § 2640.103(a)(2)]. For this review, the *CASAC Panel members will be participating personally in the matter*. Panel members will be providing the Agency with advice and recommendations on the Agency’s PM technical analyses, and such advice is expected to directly influence the Agency’s guidance on risk assessment and risk management decisions involving PM.

Therefore, participation in this review will also be substantial.

(iii) Will there be a direct and predictable effect on Panel members’ financial interest?

A direct effect on a participant’s financial interest exists if “...a close causal link exists between any decision or action to be taken in the matter and any expected effect of the matter on the financial interest. ...A particular matter does not have a direct effect ...if the chain of causation is attenuated or is contingent upon the occurrence of events that are speculative or that are independent of, and unrelated to, the matter. A particular matter that has an effect on a financial interest only as a consequence of its effects on the general economy is not considered to have a direct effect.” [5 C.F.R. § 2640.103(a)(i)] A predictable effect exists if, “...there is an actual, as opposed to speculative, possibility that the matter will affect the financial interest.” [5 C.F.R. § 2640.103(a)(ii)]. CASAC members and prospective panelists were asked to submit Form 3110-48, a Confidential Financial Disclosure for Special Government Employees, so that the SAB Staff Office could make this determination. *The SAB Staff Office has determined that there will be no direct and predictable effect on the financial interests of the CASAC Panel members.*

4. How regulations concerning “appearance of a lack of impartiality” pursuant to 5 C.F.R. § 2635.502, apply to members of the Panel

The Code of Federal Regulations at 5 C.F.R. 2635(a)(2) describes general requirements for considering an appearance of a loss of impartiality for employees of the Executive Branch (including Special Government Employees) participating in a *particular matter involving specific parties*.

The SAB Staff Office has determined that the matter to be considered by the panel is not a particular matter involving specific parties; i.e., this matter does not involve “any judicial or other proceeding, application, request for a ruling or other determination, contract, claim, controversy, investigation, charge, accusation, arrest or other particular matter involving a specific party or parties in which the United States is a party or has a direct and substantial interest” [5 C.F.R. 2637.102(a)(7)].

5. Other considerations that might affect the objectivity of members of the panel.

Members of CASAC panels must be scientific and technical experts who are objective and open-minded, able to engage in deliberative discussions with scientists who may have disparate perspectives. To evaluate candidates, the SAB Staff Office considers information (if any) provided by the public in response to the invitation for public comment on the candidates, information provided by candidates (including on the EPA Form 3110-48), and information independently gathered by the SAB Staff Office.

As part of a determination that members of committees and panels are objective and open-minded on the topic of the review, and consistent with the agency's Peer Review Policy, the SAB Staff Office considers previous involvement in the matter before the committee or panel. This evaluation includes responses provided by candidates to the following supplemental questions:

- a. Do you know of any reason that you might be unable to provide impartial advice on the matter to come before the panel/committee/subcommittee or any reason that your impartiality in the matter might be questioned?
- b. Have you had any current or previous involvement with the review document(s) under consideration including authorship, collaboration with the authors, or previous peer review functions? If so, please identify and describe that involvement.
- c. Have you served on previous advisory panels, committees or subcommittees that have addressed the topic under consideration? If so, please identify those activities.
- d. Have you made any public statements (written or oral) on the issue that would indicate to an observer that you have taken a position on the issue under consideration? If so, please identify those statements.

The SAB Staff Office has determined that there is no reason to believe that members of the selected for the 2021 CASAC PM Panel would not be objective and open-minded and able to engage in deliberative discussions with scientists who may have disparate points of view on the matter before the panel.

6. How individuals were selected for the Panel

On July 29, 2021 the SAB Staff Office posted a list of 75 candidates for the Panel, identified based on their expertise and willingness to be considered for the panel. This list was accompanied by a notice inviting public comments on a list of candidates to be submitted by August 19, 2021. The SAB Staff Office received 17 comments from the public on this list of candidates.

The SAB Staff Office Director makes the final decision about who serves on the Panel based on all of the relevant information, including a review of candidates confidential financial disclosure for (EPA-Form 3110-48), the responses to the questions above, public comments, and information independently gathered by SAB Staff.

For the SAB Staff Office, a balanced committee or panel is characterized by candidates who possess the necessary domains of scientific knowledge, relevant perspectives (which, among other factors, can be influenced by work history and affiliation), and the collective breadth of experience to adequately address the general charge. Specific criteria to be used in evaluating an individual panel member include: (a) scientific and/or technical expertise, knowledge, and experience; (b) availability and

willingness to serve; (c) absence of financial conflicts of interest; (d) absence of an appearance of a lack of impartiality; (e) skills working on advisory committees and panels (including objectivity and open-mindedness); and (f) for the committee as a whole, diversity of scientific expertise and viewpoints.

On the basis of the above-specified criteria, the members of the 2021 CASAC PM Panel are as follows:

2021 CASAC PM Panel Members

Dr. Elizabeth A. (Lianne) Sheppard, University of Washington (WA), Chair

Dr. Peter Adams, Carnegie Mellon University (PA)

Mr. George Allen, Northeast States for Coordinated Air Use Management (NESCAUM) (MA)

Dr. John R. Balmes, University of California, San Francisco (CA)

Dr. Michelle Bell, Yale University School of the Environment (CT)

Dr. James Boylan, Georgia Department of Natural Resources (GA)

Dr. Judith C. Chow, Desert Research Institute (NV)

Dr. Jane Clougherty, Drexel University (PA)

Dr. Deborah Cory-Slechta, University of Rochester (NY)

Dr. Mark W. Frampton, University of Rochester Medical Center (NY)

Dr. Christina H. Fuller, Georgia State University School of Public Health (GA)

Dr. Terry Gordon, New York University (NY)

Dr. Michael T. Kleinman, University of California, Irvine (CA)

Dr. Stephanie Lovinsky-Desir, Columbia University (NY)

Dr. Jennifer Peel, Colorado State University (CO)

Dr. Alexandra Ponette-González, University of North Texas (TX)

Dr. David Rich, University of Rochester Medical Center (NY)

Dr. Jeremy Sarnat, Emory University (GA)

Dr. Neeta Thakur, University of California at San Francisco (CA)

Dr. Barbara Turpin, University of North Carolina at Chapel Hill (NC)

Dr. Marc Weisskopf, Harvard T.H. Chan School of Public Health (MA)

Dr. Corwin (Cory) Zigler, University of Texas at Austin (TX)

Concurred,

Thomas H. Brennan
Director and Deputy Ethics Official
EPA Science Advisory Board Staff Office (1400R)

August 30, 2021

Date