



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON D.C. 20460

December 13, 2004

OFFICE OF THE ADMINISTRATOR  
SCIENCE ADVISORY BOARD

**Memorandum**

**SUBJECT:** CASAC Ambient Air Monitoring and Methods (AAMM) Subcommittee  
Advisory Meeting on Implementation Aspects of EPA's Final Draft National  
Ambient Air Monitoring Strategy (NAAMS) Memorandum of Determinations

**FROM:** Fred Butterfield  
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**TO:** Vanessa Vu, Ph.D.  
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**VIA:** Daniel Fort  
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EPA's Office of Air Quality Planning and Standards (OAQPS) has requested that the Clean Air Scientific Advisory Committee (CASAC) conduct an *advisory meeting* to provide additional advice and recommendations on implementation aspects of the Agency's Final Draft National Ambient Air Monitoring Strategy (NAAMS) document.

This memorandum addresses the set of determinations that were necessary for the Clean Air Scientific Advisory Committee (CASAC) Ambient Air Monitoring and Methods (AAMM) Subcommittee (Subcommittee) to conduct an advisory meeting to provide additional advice and recommendations on implementation aspects of the Agency's Final Draft National Ambient Air Monitoring Strategy (NAAMS or Strategy) document. This memorandum provides background information on the subject CASAC activity, and addresses the following determinations:

- (1) The type of review body that will be used to conduct the review, the name of the Subcommittee, and identification of the Subcommittee Chair;
- (2) The charge developed for the Subcommittee;
- (3) The types of expertise needed to address the charge;

- (4) Financial conflict of interest considerations, including identification of parties who are potentially interested in or may be affected by the topic to be reviewed;
- (5) How regulations concerning “appearance of a lack of impartiality,” pursuant to 5 C.F.R. § 2635.502 apply to members of the Subcommittee; and
- (6) How individuals were selected for the Subcommittee.

## **DETERMINATIONS:**

- (1) The type of review body that will be used to conduct the review, the name of the Subcommittee, and identification of the Subcommittee Chair.

The Science Advisory Board (SAB) Staff Office determined that the CASAC AAMM Subcommittee was the appropriate advisory body to conduct this advisory on implementation aspects of EPA’s Final Draft NAAMS document, on the basis of the Subcommittee’s expertise.

A detailed description of the formation process for the CASAC AAMM Subcommittee, include the Subcommittee’s scientific and technical expertise, is found in the SAB Staff Office memorandum dated July 16, 2004, entitled, “CASAC Ambient Air Monitoring and Methods (AAMM) Subcommittee ‘Coarse Particulate Matter (PMc) Methods Evaluation’ Meeting Memorandum of Determinations.” The SAB Staff Office announced the formation of the CASAC AAMM Subcommittee in a notice published in the *Federal Register* (69 FR 19180) on April 12, 2004. This Subcommittee is chaired by the former Chair of the CASAC, Dr. Philip Hopke of Clarkson University.

- (2) The charge developed for the Subcommittee.

The charge questions for the CASAC AAMM Subcommittee for this advisory meeting are contained in the OAQPS memorandum dated November 19, 2004, entitled, “Proposed Charge Questions for the CASAC’s Advisory Meeting on the National Ambient Air Monitoring Strategy (NAAMS) Implementation” which is attached to this memorandum.

- (3) The types of expertise needed to address the charge.

The expertise needed to address the charge questions for this advisory meeting is represented by the members of the CASAC AAMM Subcommittee. A detailed description of the Subcommittee’s scientific and technical expertise is found in the SAB Staff Office memorandum dated July 16, 2004, entitled, “CASAC Ambient Air Monitoring and Methods (AAMM) Subcommittee ‘Coarse Particulate Matter (PMc) Methods Evaluation’ Meeting Memorandum of Determinations.” This expertise includes: atmospheric sciences and air quality simulation modeling; human health effects and exposure assessment; air quality measurement science; ecological risk assessment; and State, local agency or Tribal experience.

(4) 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 who are potentially interested in or may be affected by the topic to be reviewed: Potentially-interested parties for this project are those individuals who, or organizations which, follow the policies or decisions relating to the Nation's regulatory-based ambient air-monitoring networks, and improvements thereto, including: (1) the regulated community; (2) State, local, and Tribal agencies; (3) research universities; (4) public interest groups; (5) those interested in reconfiguration of ambient air-monitoring networks; and (6) EPA. Potentially-affected parties are those who are impacted by policies or decisions relating to the Nation's regulatory-based ambient air-monitoring networks, including the members of the public.

(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 and 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 charge involve a particular matter? A "particular matter" refers to matters that "...will involve deliberation, decision, or action that is focused upon the interests 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 Director of the Science Advisory Board Staff Office, in consultation with the SAB Ethics and Federal Advisory Committee Act (FACA) Policy Officer, has determined that the activity of the CASAC AAMM Subcommittee in addressing the charge for its advisory meeting on "Implementation Aspects of the Agency's Final Draft NAAMS Document" does qualify as a particular matter because of the nature of the advice that will be provided as a result of the Subcommittee's deliberation. This advice will be considered in the course of the Agency's implementation of the National Ambient Air Monitoring Strategy, from which revised monitoring regulations will be proposed, and therefore will likely result in the reallocation of existing funding resources for the Nation's ambient air-monitoring networks in accordance with the recommendations of the Final Draft NAAMS document. In addition, although this advisory meeting does not focus on the interests of specific people (*i.e.*, it is not a "specific party matter"), the Special Government Employees (SGEs) who serve on the CASAC AAMM Subcommittee for this advisory meeting on "Implementation Aspects of the Agency's Final Draft NAAMS Document" are part of a group of people who could represent organizations that in the future might be regulated by EPA or seek grant or contract funding for projects in research areas identified by the Subcommittee. Furthermore, others who may ultimately receive funding and

other benefits from the implementation of this Final Draft Strategy would include: (1) State, local and Tribal agencies, *i.e.*, governments or air program (or air pollution control) agencies; and (2) research universities. *Thus, the matter does involve deliberation that focuses upon the interests of a distinct and identifiable group of people, that is, the community that may be subject to EPA regulations or receive grant or contract funding from the Agency that is directly applicable and related to the topics under review, consultation or advice by the Subcommittee. Therefore, the work of the advisory panel should be considered as a particular matter of general applicability.*

(ii) Will there be personal and substantial participation on the part of Subcommittee members? Participating personally means direct participation in this consultation. Participating substantially refers to involvement that is of significance to the matter under consideration. [5 C.F.R. § 2640.103(a)(2)]. For this advisory meeting, the SAB Staff Office has determined that *the members of the CASAC AAMM Subcommittee will be participating personally in the matter.* Subcommittee members will be providing the Agency with advice and recommendations that OAQPS has requested, to include: (1) an assessment of the appropriate and adequate balance of budgetary resources; (2) suggestions for addressing the integration and communication needs of the broader research and agency user community with respect to system design input and other feedback; (3) the relative strengths and weaknesses of harmonizing rural- and urban-based PM<sub>2.5</sub> chemical speciation networks; and (4) their judgments regarding the scientific acceptability of generating air quality surfaces through modeled observations and/or integrated predictive or observational fields? *Therefore, participation in this advisory will also be substantial.*

(iii) Will there be a direct and predictable effect on CASAC AAMM Subcommittee 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 a speculative, possibility that the matter will affect the financial interest." [5 C.F.R. § 2640.103(a)(ii)]

Each CASAC AAMM Subcommittee member could conceivably have financial links to the Agency in the form of existing or pending grants, cooperative agreements, contracts, or other funding. Furthermore, many of these individuals could submit proposals for such grants, cooperative agreements, contracts or other funding in the future.

In determining whether a member's participation has a direct and predictable effect on their financial interest, the SAB Staff Office has evaluated the process for awarding grants and whether it could directly tie a person's actions in this review to financial gain. In evaluating this factor, the requirement is that a person's actions in participating in the matter must have a "close causal link" to their financial interest. Further, the link must be predictable, that is actual and not "speculative." In the case of members of the CASAC AAMM Subcommittee, the "chain of causation" is attenuated and contingent upon the occurrence of events that are speculative. Thus, while Subcommittee members may, in the course of this consultation, provide OAQPS with advice and recommendations as delineated in part (ii) above, provision of this advice would

have no direct correlation with an individual Subcommittee member's receipt of current or future grants, cooperative agreements, contracts, or other funding from the Agency.

Moreover, selection of grant recipients follows a complex two-stage process in which independent reviewers judge the scientific quality of a proposal and then Agency representatives judge the relevance of the proposal to answering major scientific questions within the subject area. Thus, actual selection of grant recipients is mediated by a chain of events that attenuates any direct linking of a grant to a panel member's participation in this or subsequent CASAC AAMM Subcommittee reviews, consultations, advisories or other activities. Therefore, any effects from participating in this advisory meeting would not be direct, nor would they be predictable. *Accordingly, no conflict-of-interest as defined by 18 U.S.C. § 208 exists in association with grant holding by members of the CASAC AAMM Subcommittee.*

Furthermore, because the procedures for awarding grants, cooperative agreements, contracts, or other funding differ, each specific situation has been evaluated to determine if a direct and predictable effect exists between a Subcommittee member's participation and their financial interest. Finally, matters in which CASAC AAMM Subcommittee members have grants, cooperative agreements, contracts or other funding from the Agency that are for work that fits conceptually or specifically within the expected work of this Subcommittee have been evaluated under the requirements for considering "appearance of impartiality" under 5 C.F.R. § 2635.502, as discussed below in Section (5).

*As a result of a review of the Agency's Confidential Financial Disclosure Form (EPA Form 3110-48) provided by each CASAC AAMM Subcommittee member, the SAB Staff Office Director, in consultation with SAB Ethics and FACA Policy Officer, has determined that there is no financial conflict-of-interest presented for any of the members of the CASAC AAMM Subcommittee. In addition, the Subcommittee's advice on the particular matter under review will not have a direct effect on the financial interest of any CASAC AAMM Subcommittee member.*

- (5) How regulations concerning "appearance of a lack of impartiality," pursuant to 5 C.F.R. § 2635.502, apply to members of the Subcommittee.

The Code of Federal Regulations at 5 C.F.R. § 2635.502(a) states that: "Where an employee knows that a particular matter involving specific parties is likely to have a direct and predictable effect on the financial interest of a member of his household, or knows that a person with whom he has a covered relationship is or represents a party to such matter, and where the person determines that the circumstances would cause a reasonable party to such matter, and where the person determines that the circumstances would cause a reasonable person with knowledge of the relevant facts to question his impartiality in the matter, the employee should not participate in the matter unless he has informed the agency designee of the appearance problem and received authorization from the agency designee." Further, § 2635.502(a)(2) states that, "An employee who is concerned that circumstances other than those specifically described in this section would raise a question regarding his impartiality should use the process described in this section to determine whether he should or should not participate in a particular matter."

As noted above in Section (4)(b)(i), the CASAC AAMM Subcommittee's activity in addressing the charge for this advisory meeting on "Implementation Aspects of the Agency's

Final Draft NAAMS Document” qualifies as a *particular matter* because the advice that will be provided will result from the Subcommittee’s deliberation; and, furthermore, that the matter will involve deliberation that focuses upon the interests of a *distinct and identifiable group of people but does not involve specific parties*. Consequently, as noted above, the advisory meeting should be considered as a *particular matter of general applicability*. However, as also noted above in Section (4)(b)(iii), the chain of events for a grant is attenuated by certain factors that do not constitute a conflict of interest, as defined by 18 U.S.C. § 208. Accordingly, since there are no direct and predictable effects, *the criterion for “appearance of impartiality” at 5 C.F.R. § 2635.502(a) is not met for members of the CASAC AAMM Subcommittee*. EPA grant, cooperative agreement, contracts or other funding may present a different situation, and each Subcommittee member was evaluated to determine whether his or her financial interest in existing grants, cooperative agreements, contracts or other funding constitutes an “appearance of impartiality.”

Even though circumstances for some specific members of the Subcommittee may raise neither formal conflict-of-interest nor formal appearance concerns, each member was evaluated against the 5 C.F.R. § 2635(a)(2) general requirements to ensure that lack of an appearance of impartiality issues do not preclude their participation. To further ascertain whether there was any potentially disqualifying involvement with the topic of the CASAC AAMM Subcommittee’s consultative meeting which might indicate the appearance of a lack of impartiality, the following five (5) questions were posed to all members of the CASAC AAMM Subcommittee with respect to the specific written meeting materials for this advisory on “Implementation Aspects of the Agency’s Final Draft NAAMS Document”:

(a) Do you know of any reason that you might be unable to provide impartial advice on the matter to come before the Subcommittee or any reason that your impartiality in the matter might be questioned?

(b) Have you had any 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? If so, please identify those statements.

(e) Have you made any public statements that would indicate to an observer that you have taken a position on the issue under consideration? If so, please identify those statements.

*As a result of a review of the EPA Form 3110-48 and the responses to the above (5) questions provided by each prospective CASAC AAMM Subcommittee member, the CASAC DFO, the Director of the SAB Staff Office, in consultation with SAB Ethics and FACA Policy Officer, has determined that there is no appearance of a lack of impartiality on the part of the members of the CASAC AAMM Subcommittee.*

(6) How individuals were selected for the Subcommittee.

Based on the evaluation described above, the following CASAC AAMM Subcommittee members were selected to participate in this advisory meeting on “Implementation Aspects of the Agency’s Final Draft NAAMS Document”:

CASAC AAMM Subcommittee Members:

1. Dr. Philip Hopke, Clarkson University (NY) – Chair [also a CASAC member]
2. Dr. Ellis Cowling, North Carolina State University (NC) [also a CASAC member]
3. Mr. Richard Poirot, Department of Environmental Conservation, Vermont Agency of Natural Resources (VT) [also a CASAC member]
4. Mr. George Allen, Northeast States for Coordinated Air Use Management (MA)
5. Dr. Judith Chow, Desert Research Institute (NV)
6. Mr. Bart Croes, California Air Resources Board (CA)
7. Dr. Kenneth Demerjian, SUNY Albany (NY)
8. Dr. Delbert J. Eatough, Brigham Young University (UT)
9. Mr. Eric Edgerton, Atmospheric Research & Analysis (NC)
10. Mr. Henry D. (Dirk) Felton, New York State Department of Environmental Conservation (NY)
11. Dr. Rudolf Husar, Washington University, St. Louis (MO)
12. Dr. Kazuhiko Ito, NYU School of Medicine (NY)
13. Dr. Donna Kenski, Lake Michigan Air Directors Consortium (IL)
14. Dr. Thomas Lumley, University of Washington (WA)
15. Dr. Peter McMurry, University of Minnesota (MN)
16. Dr. Kim Prather, University of California, San Diego (CA)
17. Dr. Armistead (Ted) Russell, Georgia Institute of Technology (GA)
18. Dr. Jay Turner, Washington University, St. Louis (MO)
19. Dr. Warren White, University of California, Davis (CA)
20. Dr. Yousheng Zeng, Providence Engineering & Environmental Group LLC (LA)

Concurred:

*December 13, 2004*

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Director  
EPA Science Advisory Board Staff Office (1400F)

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Date

Attachment