



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

OFFICE OF THE ADMINISTRATOR  
SCIENCE ADVISORY BOARD

January 14, 2009

**MEMORANDUM**

**SUBJECT:** U.S. EPA Science Advisory Board (SAB) Advisory Committee on EPA's Report on the Environment – Determination of Committee Membership

**FROM:** Thomas M. Armitage, Ph.D. */Signed/*  
Designated Federal Officers  
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**THRU:** Anthony F. Maciorowski, Ph.D. */Signed/*  
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**TO:** Vanessa Vu, Ph.D.  
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This memorandum documents the process and addresses the set of determinations used in forming this Science Advisory Board Committee. It provides background information on the subject SAB activity and addresses:

1. The general charge developed for the Committee;
2. The type of committee that will be used to conduct the review and identification of the types of expertise needed to address the charge;
3. How individuals were placed on the "short list" of candidates for the Committee;
4. Identification of parties who are potentially interested in or may be affected by the topic to be reviewed;
5. Whether the charge involves a particular matter and how conflict of interest regulations apply to members of the panel; and
6. Selection of Committee membership.

## **A. Background**

In May 2008 EPA published its Report on the Environment (ROE 2008). The ROE 2008 presents environmental and human health indicator information to represent the status of and trends in the condition of the Nation's environment. Three chapters in the ROE 2008 provide information on the condition of air, water, and land environments. Two other chapters focus on human health and ecological condition. EPA has stated that it intends to use the Report on the Environment to: 1) inform strategic planning, priority setting, and decision making across the Agency, and 2) provide information to enable the public to assess whether EPA is succeeding in its overall mission to protect human health and the environment. Thus, the environmental indicators in the ROE 2008 were selected to answer broad questions deemed to be of critical importance to EPA's mission.

The SAB reviewed previous drafts of the ROE dated 2003 and 2007. The findings and recommendations of these SAB reviews are available on the SAB website at: <http://www.epa.gov/sab> (see reports EPA-SAB-05-004 and EPA-SAB-08-007). EPA has incorporated many of the SAB comments into the ROE 2008 and expects to modify future editions of the ROE based on the long-term recommendations provided in the SAB review of the draft 2007 ROE. Therefore, EPA's Office of Research and Development has requested that the SAB provide additional advice on how to: 1) incorporate some of the improvements recommended by the SAB, and 2) make the ROE more useful to EPA in informing planning and decision making and providing information to the public.

## **B. Determinations**

### **1) The general charge to the Committee:**

The SAB has been asked to provide advice on: 1) developing a more robust conceptual model supporting the intended purpose of the next version of the Report on the Environment, 2) developing revised indicator criteria for the Report on the Environment, and 3) options for a more systematic treatment of uncertainty in the Report on the Environment.

### **2) Type of committee that will be used to conduct the review, the types of expertise needed to address the charge, and the name of the committee:**

The advisory activity will be conducted by an EPA Science Advisory Board *Ad Hoc* Committee. The SAB Staff Office announced to the public through a *Federal Register* notice on July 23, 2008 that it was soliciting nominations of nationally recognized scientists with expertise in the following areas to serve on the Committee: a) environmental scientists and engineers with knowledge of the sources, fate, and transport of air pollutants and outdoor and indoor air quality indicators; b) aquatic biologists, ecologists, hydrologists, chemists, oceanographers, and microbiologists with expertise in assessing the condition of surface water, ground water, drinking water, wetlands, coastal waters, and/or recreational waters; c) environmental scientists, ecologists, soil scientists, and environmental engineers with expertise in the use of indicators (e.g., land cover, land use, wastes on land, chemicals used on land, and contaminated land) to assess the condition of land; d) health scientists (e.g., in the fields of public health, epidemiology,

medicine, and risk assessment) with expertise in assessing human exposure to environmental pollutants, health risks associated with environmental pollutants, and/or indicators for assessing human health condition; e) ecologists with expertise in the use of indicators to assess the ecological effects of exposure to pollutants and the condition of whole ecosystems; f) statisticians with expertise in analysis of environmental information to determine the status of and trends in environmental condition; and g) decision scientists, social scientists, communication scientists, and environmental economists with expertise in using and/or communicating environmental indicator information and formulating environmental policy. The Committee will provide advice to EPA over the next two years on improvements in the Report on the Environment, and will ultimately review the next version of the Report

### **3) How individuals were placed on the “short list”:**

The SAB Staff Office identified 49 experts to be considered for the Committee. On October 10, 2008 the SAB Staff Office posted a notice on the SAB website inviting public comments on the “short list” of candidates for the Committee. In particular, the notice stated that the Staff Office would welcome any information pertinent to the candidate’s potential service on the Committee, and asked that they be submitted no later than October 31, 2008. The SAB Staff Office received no comments on the “short list” of candidates.

### **4) Identification of parties who are potentially interested in or may be affected by the topic to be reviewed:**

Potentially interested parties may include: 1) federal, state, and local government agencies; 2) non-governmental organizations that focus on environmental policy development; 3) A broad range of academic and industry researchers; or academic, industry, and government sponsored research institutes addressing environmental indicators and national environmental trends.

### **5) Whether the charge involves a particular matter and how conflict of interest regulations apply to members of the panel:**

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.”

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 a lack of impartiality guidelines” may still apply and need to be considered.

#### **Personal and Substantial Participation:**

Participating personally means participating directly. Participating substantially refers to

involvement that is of significance to the matter [5C.F.R. 2640.103(a)(2)]. For this advisory activity, panel members will be participating personally in the matter through attendance at meetings, teleconferences and other means.

#### Direct and Predictable Effect:

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)].

#### Particular Matter:

A "particular matter" refers to matters that "...will involve deliberations, 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 divers group of people." [5 C.F.R. 2640.103 (a)(1)].

The SAB Report on the Environment Advisory Committee's activity in addressing EPA's Report on the Environment charge does not constitute a particular matter because it does not include matters that involve deliberation, decision or action that is focused upon the interest of specific people, or a discrete and identifiable class of people. The SAB Committee's activity does not include matters which involve formal parties or extend to legislation or policy-making that is narrowly focused upon the interests of a discrete and identifiable class of persons. EPA's Report on the Environment is concerned with reporting a variety of environmental indicators for public information purposes and tracking environmental progress in a number of areas. As such, this is something that is directed to the interests of a large and diverse group of people and is a matter of general applicability. Thus, the criterion for particular matter concerning specific parties is not met and no financial conflict of interest as defined in 18 USC 208 exists.

#### Appearance of a Lack of Impartiality Considerations:

The Code of Federal Regulations [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 who 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 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, 5 C.F.R. 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.”

Candidates were evaluated against the 5 C.F.R. 2635(a)(2) general requirements for considering an appearance of a lack of impartiality. Information used in this evaluation has come from information provided by potential advisory panel members (including, but not limited to, EPA 3110-48 confidential financial disclosure forms) and public comment as well as their responses to the following supplemental questions (included on the EPA 3110-48 confidential financial disclosure form):

1. 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?
2. 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.
3. Have you served on previous advisory panels, committees or subcommittees that have addressed the topic under consideration? If so, please identify those activities.
4. 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.

As a result of a review of all relevant information including financial disclosure, the responses to the four questions above, and public comments, the Deputy Ethics Official of the Science Advisory Board has determined that there are no conflicts of interest or appearances of a lack of impartiality for the members of this panel.

#### **6) Selection of Panel membership:**

The SAB Staff Director makes the decision about who serves on the SAB Report on the Environment Advisory Committee. For the SAB Staff Office, a balanced committee or panel is characterized by inclusion of candidates who possess the necessary domains of knowledge, the relevant scientific perspectives (which, among other factors, can be influenced by work history and affiliation), and the collective breadth of experience to adequately address the charge. Specific criteria to be used in evaluating an individual Panel member include: (a) scientific and/or technical expertise, knowledge, and experience (primary factors); (b) availability and willingness to serve; (c) absence of financial conflicts of interest; (d) absence of an appearance

of a lack of impartiality; and (e) skills working in committees, subcommittees and advisory panels; and, for the Committee as a whole, (f) diversity of, and balance among, scientific expertise, viewpoints, etc. The final Committee was selected from candidates on the “Short List.” The membership of the Committee includes the following individuals:

- Dr. James Sanders, Skidaway Institute of Oceanography (GA) (Chair)
- Dr. David Allen, University of Texas (TX)
- Dr. Henry Anderson, Wisconsin Division of Public Health (WI)
- Dr. John Bailar, The National Academies (DC)
- Dr. Timothy Buckley, The Ohio State University (OH)
- Dr. Ingrid Burke, University of Wyoming (WY)
- Ms. Lauraine Chestnut, Stratus Consulting, Inc. (CO)
- Dr. Aaron Cohen, Health Effects Institute (MA)
- Dr. Loveday Conquest, University of Washington (WA)
- Dr. Natalie Freeman, University of Florida (FL)
- Dr. Jeffrey Griffiths, Tufts University (MA)
- Dr. Charles Hawkins, Utah State University (UT)
- Dr. Lynda Knobloch, Wisconsin Department of Health and Family Services (WI)
- Dr. Allen Legge, Biosphere Solutions (Canada)
- Dr. Helen Suh MacIntosh, Harvard University (MA)
- Dr. Amanda Rodewald, The Ohio State University (OH)
- Dr. Peter Scheff, University of Illinois, Chicago (IL)
- Dr. Mark Schwartz, University of California, Davis (CA)
- Dr. Alan Steinman, Grand Valley State University (MI)
- Dr. Duc Vugia, California Department of Health Services (CA)
- Dr. Kathleen Weathers, Cary Institute of Ecosystem Studies (NY)
- Dr. Judith Weis, Rutgers University (NJ)
- Dr. Steven Weisberg, Southern California Coastal Water Research Project (CA)

Concurred,

*/Signed/*

January 14, 2009

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Vanessa Vu, Ph.D.  
Director  
EPA Science Advisory Board Staff Office (1400F)

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Date