



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C. 20460

OFFICE OF THE ADMINISTRATOR
SCIENCE ADVISORY BOARD

MEMORANDUM

SUBJECT: U.S. EPA Science Advisory Board (SAB) Expert Elicitation Advisory Panel –
Determination of Panel Membership

FROM: Angela Nugent, Ph.D. /s/ 11/18/08
Designated Federal Officers
EPA Science Advisory Board Staff Office (1400F)

THRU: Wanda Bright /s/ 11/18/08
Ethics Assistant
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TO: Vanessa Vu, Ph.D.
Director
EPA Science Advisory Board Staff Office (1400F)

This memorandum documents the process and addresses the set of determinations used in forming this Science Advisory Board Panel. It provides background information on the subject SAB activity and addresses:

1. The general charge developed for the Panel;
2. The type of panel that will be used to conduct the review, the name of the Panel, 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 Panel;
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 Panel membership.

A. Background

EPA's Office of the Science Advisor requested SAB review of an "Expert Elicitation (EE) Task Force White Paper." The White Paper discusses the utility of expert elicitation for EPA regulatory and non-regulatory analyses and decision making, provides recommendations for expert elicitation “good practices,” and describes steps for broader application across EPA. The White Paper provides background explaining the increased interest in this approach and summarizes prior experiences and applications within EPA, throughout the federal government,

and elsewhere. The White Paper defines expert elicitation and considers its advantages and disadvantages as one of many tools to characterize uncertainty. In addition, a number of factors are described that may help determine when expert elicitation is appropriate. The White Paper explains the process for conducting a credible expert elicitation, illustrates approaches for presenting results, and provides recommendations for further development and use of EE within EPA or by outside parties submitting expert elicitation assessments to EPA for consideration.

B. Determinations

1) The general charge to the Panel:

The SAB has been asked to provide advice regarding the White Paper's characterization of the potential usefulness of expert elicitation, how to strengthen the scientific basis for its use, the implications for possible implementation of expert elicitation at EPA, and the effectiveness of the White Paper for educating the public and engaging stakeholders about the use of expert elicitation at EPA.

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

The advisory activity will be conducted by an EPA Science Advisory Board *Ad Hoc* Panel. The SAB Staff Office announced to the public through a *Federal Register* notice on June 28, 2007 (72 FR 35463-35465) that it was soliciting nominations of nationally and internationally recognized non-EPA scientists for this panel and three other related panels (to address the characterization of uncertainty in the estimated benefits of reduced PM-mortality using expert elicitation, a report on hierarchy of methods for characterizing uncertainty, and a draft "Influence Analysis Report"). It solicited nominations of experts with expertise and experience related to uncertainty analysis or expert elicitation in the following fields: statistics, mathematics, biostatistics, cognitive psychology, decision analysis, environmental economics, human health sciences, ecological science, epidemiology, policy analysis, risk assessment, and risk communication. The name of the panel is the "SAB Expert Elicitation Advisory Panel."

3) How individuals were placed on the "short list":

The SAB Staff Office identified 35 experts to be considered for the SAB Expert Elicitation Advisory Panel and the three additional panels referenced in section 2 above. On March 26, 2008, the SAB Staff Office posted a notice on the SAB Web site inviting public comments on the "short list" of 35 candidates. The notice stated that the Staff Office would welcome any relevant information, analysis or other documentation for consideration in selecting experts for the panel and requested comments by April 16, 2008. The SAB Staff Office received comments from two individuals (see attachment for the list of commenters).

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 interested in uncertainty analysis and expert elicitation; and 4) EPA external stakeholders potentially affected by uncertainty analysis or expert elicitation that may be used in technical documents supporting EPA regulations.

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 Expert Elicitation Advisory Panel's activity in addressing EPA’s 2007 Expert Elicitation White Paper 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 Panel’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. The SAB Expert Elicitation Advisory Panel will be concerned with a white paper exploring potential use of a methodology that could be used in a wide range of scientific applications. 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 questions:

- a) Have you had any previous involvement with EPA's Expert Elicitation White Paper including authorship, collaboration with authors on this white paper, or previous peer review functions related to this white paper? If so, please identify that involvement.
- b) Have you served on previous advisory panels or committees that addressed EPA's White Paper? If so, please identify those activities.
- c) Have you made any public statements (written or oral) or taken a position on the subject of EPA's use of expert elicitation? If so, please identify those statements.
- d) Do you know of any reason that you might be unable to provide impartial advice on EPA's Expert Elicitation White Paper or any reason that your impartiality in the matter might be questioned?

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 Expert Elicitation Advisory Panel. 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 Panel as a whole, (f) diversity of, and balance among, scientific expertise, viewpoints, etc. The final panel was selected from candidates on the "Short List" and appointed members of the SAB. The membership of the Panel includes the following individuals:

CHAIR

Dr. James K. Hammitt, Professor, Center for Risk Analysis, Harvard University, Boston, MA

MEMBERS

Dr. William Louis Ascher, Donald C. McKenna Professor of Government and Economics, Claremont McKenna College, Claremont, CA

Dr John Bailar, Scholar in Residence, The National Academies, Washington, DC, USA

Dr. Mark Borsuk, Assistant Professor, Engineering Sciences, Thayer School of Engineering, Dartmouth College, Hanover, NH, USA

Dr. Wändi Bruine de Bruin, Research Fellow, Department of Social & Decision Sciences, Carnegie Mellon University, Pittsburgh, PA

Dr Roger Cooke, Professor of Mathematics at Delft University of Technology and Chauncey Starr Senior Fellow for Risk Analysis at Resources for the Future, Resources for the Future, Washington, DC, USA

Dr. John Evans, Senior Lecturer on Environmental Science, Harvard University, Portsmouth, NH

Dr. Scott Ferson, Senior Scientist, Applied Biomathematics, Setauket , New York

Dr. Paul Fischbeck, Associate Professor, Engineering and Public Policy and Social and Decision Sciences, Carnegie Mellon University, Pittsburgh, PA

Dr. H. Christopher Frey, Professor, Department of Civil, Construction and Environmental Engineering, College of Engineering, North Carolina State University, Raleigh, NC, USA

Dr. Max Henrion, CEO and Associate Professor, Lumina Decision Systems, Inc., Los Gatos, CA, USA

Dr. Alan J. Krupnick, Senior Fellow and Director, Quality of the Environment Division, Resources for the Future, Washington, DC

Dr. Mitchell J. Small, The H. John Heinz III Professor of Environmental Engineering, Department of Civil and Public Policy, Carnegie Mellon University, Pittsburgh, PA

Dr Katherine Walker, Independent Consultant, Independent Consultant, CH -1219 Chatelaine, AK, Switzerland

Dr. Thomas S. Wallsten, Professor and Chair, Department of Psychology , University of Maryland, College Park, MD

Concurred,

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

___11/18/08___
Date

Attachment

List of Commenters on “short list” candidates for the SAB Expert Elicitation Advisory Panel:

1. Mr. Harvey Richmond, U.S. EPA
2. Ms. Lisa Conner, U.S. EPA