



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON D.C. 20460

OFFICE OF THE ADMINISTRATOR  
SCIENCE ADVISORY BOARD

January 14, 2015

**MEMORANDIUM**

**SUBJECT:** Formation of the Chemical Assessment Advisory Committee (CAAC)  
Augmented for the Review of the EPA's Draft IRIS Benzo[a]pyrene  
Assessment

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**TO:** Christopher S. Zarba  
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EPA Science Advisory Board Staff Office (1400R)

The National Center for Environmental Assessment (NCEA) in the EPA's Office of Research and Development (ORD) develops toxicological reviews/health assessments for various chemicals for EPA's Integrated Risk Information System (IRIS). NCEA developed a draft IRIS toxicological review of Benzo[a]pyrene and released an external review draft in September 2014. NCEA has asked the Science Advisory Board (SAB) to peer review the 2014 draft assessment for benzo[a]pyrene.

This memorandum addresses the set of determinations that were used in augmenting the CAAC for the Benzo[a]pyrene Review 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 loss of impartiality" pursuant to 5 C.F.R.

§ 2635.502 apply to members of the Panel;

5. Other considerations that might affect the objectivity of 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.

The Chemical Assessment Advisory Committee (CAAC), a standing committee of the SAB, will be augmented by subject matter experts to conduct a peer review of EPA's *Toxicological Review of Benzo[a]pyrene* (External Review Draft - September 2014). The CAAC Augmented for the Benzo[a]pyrene Review will provide independent advice to the EPA Administrator through the chartered SAB.

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

On January 28, 2014, the EPA SAB Staff Office announced in a Federal Register Notice (Volume 79, Number 18, Pages 4465-4466) that it was augmenting the CAAC with additional experts to review and provide independent expert advice through the Chartered SAB on the EPA's *Toxicological Review of Benzo[a]pyrene* (External Review Draft - September 2014). To augment the CAAC, the SAB Staff Office sought public nomination of nationally and internationally recognized scientists in one or more of the following areas, with a particular focus on benzo[a]pyrene: toxicology of benzo[a]pyrene; epidemiology with expertise in PAHs and benzo[a]pyrene, developmental toxicity, neurotoxicity, reproductive toxicity (both male and female), immunotoxicity, genotoxicity, cancer biology, dermal toxicity and carcinogenicity, including toxicokinetic considerations (e.g., dose metrics, extrapolation from animals to humans), and quantitative risk assessment.

3. Financial conflict of interest consideration, including identification of parties who are potentially interested in or may be affected by the topic reviewed.
  - (a) Identification of parties (or class of parties) whose financial interests may be affected by the matter to be reviewed: The principal interested and affected parties as a class for this topic are organizations or industry sectors that may be affected by policies or regulations developed on the basis of EPA's *Toxicological Review of Benzo[a]pyrene*. These industry sectors include those involved in the manufacture, use and distribution of benzo[a]pyrene-containing products (e.g., coal tar products), as well as activities (e.g. petroleum refining) associated with the storage, release and disposal of benzo[a]pyrene containing waste.
  - (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 financial conflict of interest; however, the general provisions in the appearance of impartiality guidelines still apply and need to be considered.

- (i) Does the general charge to the CAAC Benzo[a]pyrene Review 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 CAAC Benzo[a]pyrene Review 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 informed by the IRIS Benzo[a]pyrene health assessment that may impact the manufacture and distribution of benzo[a]pyrene containing products, and the release or disposal of benzo[a]pyrene containing waste.

- (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 SAB Staff Office has determined that the *CAAC Benzo[a]pyrene Review Panel members will be participating personally in the matter*. Panel members will be providing the agency with advice and recommendations through the chartered SAB on the agency’s draft *IRIS Toxicological Review of Benzo[a]pyrene* and such advice is expected to directly influence the agency’s final assessment. *Therefore, participation in this review also will be substantial.*
- (iii) Will there be a direct and predictable effect on panel members’ financial interests? 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 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)(ii)]. The ethics regulations include an exemption allowing special government employees (SGEs) serving on federal advisory committees to participate in any particular matter of general applicability where the disqualifying financial interest arises from their non-Federal employment or non-Federal prospective employment, provided that the matter will not have a special or distinct effect on the employee or employer other than as part of a class [5 C.F.R. § 2640.203(g)]. (This exemption does not include the interests of an SGE arising from the ownership of

stock in his employer or prospective employer.)

CAAC members and prospective panelists were asked to submit EPA 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 CAAC Benzo[a]pyrene Review Panel members from their participation on the Panel.*

4. How regulations concerning “appearance of a loss 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. § 2635.502(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 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 has 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.”

Prospective panel members were evaluated against the 5 C.F.R. 2635(a)(2) general requirements for considering an appearance of a loss of impartiality. This evaluation included information provided on the EPA Form 3110-48 confidential financial disclosure forms. *The SAB Staff Office has determined that the matter to be considered by the CAAC Benzo[a]pyrene Review 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 SAB 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 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 SAB staff.

As part of a determination that panel members 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 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 the members selected for the CAAC Benzo[a]pyrene Review 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 September 11, 2014, the SAB Staff Office posted a list of 72 candidates for the Augmented CAAC, identified based on their expertise and willingness to be considered for the panel. This list was accompanied by a notice inviting public comments on the list of candidates, to be submitted by October 2, 2014. The SAB Staff Office received two set of comments from the public on this list of candidates from the following persons:

- Richard Denison & Lindsay McCormick, Environmental Defense Fund
- Anne P. LeHuray, Pavement Coatings Technology Council

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 each candidate's confidential financial disclosure form (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 loss of impartiality pursuant to 5 C.F.R. § 2635.502; (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 CAAC Augmented for the Benzo[a]pyrene Review are as follows:

CAAC Augmented for the Benzo[a]pyrene Review

- Dr. Elaine Faustman, CHAIR, University of Washington
- Dr. Scott Bartell, University of California-Irvine
- Dr. Ronald Baynes, North Carolina State University
- Dr. Annette Bunge, Colorado School of Mines
- Dr. Scott Burchiel, University of New Mexico
- Dr. Ana Choi, Harvard School of Public Health
- Dr. John DiGiovanni, University of Texas at Austin
- Dr. Joanne English, NSF International
- Dr. William Michael Foster, Duke University Medical Center
- Dr. Chris Gennings, Icahn School of Medicine at Mount Sinai
- Dr. Helen Goeden, Minnesota Department of Health
- Dr. Sean Hays, Summit Toxicology
- Dr. John Kissel, University of Washington
- Dr. Edward Levin, Duke University
- Dr. Abby Li, Exponent Incorporated
- Dr. Maureen Lichtveld, Tulane University
- Dr. Barry McIntyre, National Institute of Environmental Health Sciences
- Dr. Bhagavatula Moorthy, Baylor College of Medicine
- Dr. Miriam Poirier, National Institutes of Health
- Dr. Kenneth Portier, American Cancer Society
- Dr. Kenneth Ramos, University of Arizona
- Dr. Stephen M. Roberts, University of Florida
- Dr. Richard Schlesinger, Pace University
- Dr. Leslie Stayner, University of Illinois
- Dr. Alan Stern, New Jersey Department of Environmental Protection
- Dr. Charles Vorhees, Cincinnati Children's Research Foundation/University of Cincinnati
- Dr. Christi Walter, University of Texas at San Antonio

Concurred,

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/s/  
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1/14/2015  
Date