



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

**OFFICE OF THE ADMINISTRATOR
SCIENCE ADVISORY BOARD**

September 23, 2020

MEMORANDUM

SUBJECT: Formation of the SAB Radiation Advisory Committee (RAC) Augmented with Additional Experts to review Revision 2 of the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) (Draft for Public Comment)

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THRU: Wanda Bright /s/
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TO: Thomas Brennan
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The EPA's Office of Air and Radiation (OAR), on behalf of the Multi-Agency Federal MARSSIM Workgroup, which is composed of the four federal agencies having authority and control of radioactive materials: the U.S. EPA, U.S. Nuclear Regulatory Commission (NRC), U.S. Department of Energy (DOE), and U.S. Department of Defense (DOD), has requested the Science Advisory Board to conduct a peer review on Revision 2 of the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) (Draft for Public Comment). MARSSIM provides information on planning, conducting, evaluating and documenting environmental radiological surveys of surface soil and building surfaces for demonstrating compliance with regulations. MARSSIM, when finalized as Revision 2, will update this multi-agency consensus document.

This memorandum addresses the set of determinations that were necessary to form a SAB panel for providing advice on revisions to MARSSIM, 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 committee or panel;
5. Other considerations that might affect the objectivity of members of the committee or panel; and
6. How individuals were selected for the committee or panel.

DETERMINATIONS:

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

The SAB Radiation Advisory Committee (RAC), a standing committee of the SAB, will be augmented with additional experts to conduct a review on Revision 2 of MARSSIM (Draft for Public Comment). The RAC augmented for MARSSIM review will provide independent advice to the EPA Administrator through the chartered SAB.

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

In a *Federal Register* Notice (Volume 85, Number 94, Pages 28943 – 28944) that was published on May 14, 2020, the SAB Staff Office sought public nominations of experts to augment the Science Advisory Board Radiation Advisory Committee for the review of EPA’s Multiagency Radiation Survey and Site Investigation Manual (MARSSIM) Revision 2 (Draft for Public Comment). The *Federal Register Notice* solicited public nominations of experts in the following disciplinary areas: Environmental monitoring and sampling; geology; hydrogeology; measurement protocols; and statistics. Expertises focus on radionuclides.

The SAB Staff Office identified 38 experts (including 14 current Radiation Advisory Committee (RAC) members) to be considered for this advisory activity. On August 12, 2020, the SAB Staff Office posted a notice on the SAB Web site inviting public comments on the List of Candidates for the review of MARSSIM Revision 2 (Draft for Public Comment) by September 2, 2020. The SAB Staff Office received no comments.

3. Financial conflict of interest considerations, 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: Potentially interested and affected parties

include federal agencies and all other parties having radionuclides present on their site, including states, site owners, contractors and private entities that use the MARSSIM as a federal consensus guidance.

- (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 SAB RAC-augmented MARSSIM Committee 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)]. Additionally, 5 C.F.R. 2637.102(a)(7) defines a particular matter involving specific parties to mean any judicial or other proceeding, application, request for ruling or other determination, contract, claim, controversy, investigation, change, 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.

The SAB advice on the revisions to MARSSIM does not qualify as 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. Further, it does not include matters which involve formal parties, nor does it extend to legislation or policy-making that is narrowly focused upon the interests of a discrete and identifiable class of persons. The MARSSIM is a broad-based and all-inclusive manual which provides guidance to all federal agencies, states, site owners, contractors, and other private entities on how to demonstrate that their site is in compliance with a radiation dose or risk-based regulation, otherwise known as a release criterion. Thus, MARSSIM affects anyone with a site with a potential for a radiation dose (utilities, hospitals, waste disposal facilities, mining operations, etc.) and does not focus on a discrete and identifiable class.

- (ii) Will there be personal and substantial participation on the part of the committee/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 *SAB Panel members will be participating personally in the matter through attendance at meetings, teleconferences and other means.* Panel members will be providing the Agency with advice and individual recommendations on suggested revisions to the MARSSIM and such advice is expected to directly and substantially influence the Agency's and the multi-agency Workgroup decisions pertaining this multi-agency activity. *Therefore, participation in this review also will be substantial.*

- (iii) Will there be a direct and predictable effect on the MARSSIM Committee 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.)

Candidates for the Panel were evaluated against the requirements of 5 C.F.R. § 2640.101(a), using each candidate's confidential financial disclosure form (EPA Form 3110-48), to determine whether the work of the Panel will have a direct and predictable effect on his or her financial interests. *The SAB Staff Office has determined that there will be no direct and predictable effect on the financial interests of members of the Panel from their participation on the committee.*

4. How regulations concerning "appearance of a loss of impartiality" pursuant to 5 C.F.R. § 2635.502. apply to members of the committee or 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.

5. Other considerations that might affect the objectivity of members of the committee or 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 (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 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 SAB RAC-augmented MARSSIM 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 committee.

6. How individuals were selected for the committee or panel.

On August 12, 2020, the SAB Staff Office posted a list of 38 candidates for the SAB MARSSIM Review Panel (14 candidates are current RAC members), identified based on their expertise and willingness to be considered for the committee. This list was accompanied by a notice inviting public comments on the list of candidates, to be submitted by September 2, 2020. The SAB Staff Office has not received any comments from the public on this list of candidates.

The SAB Staff Office Director makes the final decision about who serves on a review 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 breath 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 SAB RAC-augmented MARSSIM Review Panel are as follows:

SAB RAC-augmented MARSSIM Review Panel

RAC Members:

Chair: Dr. Brant Ulsh, M.H. Chew & Associates (OH)

Dr. Sally A. Amundson, Columbia University (NY)

Dr. Harry M. Cullings, Radiation Effects Research Foundation (retired) (PA)

Dr. Lawrence Dauer, Memorial Sloan-Kettering Cancer Center (NY)

Dr. Timothy DeVol, Clemson University (SC)

Mr. Earl W. Fordham, Washington Department of Health (WA)

Dr. Barbara L. Hamrick, University of California, Irvine Medical Center (CA)

Dr. Kenneth G.W. Inn, Independent Consultant (HI)

Dr. Annie B. Kersting, Lawrence Livermore National Laboratory (CA)

Dr. Amy Kronenberg, Lawrence Berkeley National Laboratory (CA)

Dr. Robert Litman, Independent Consultant (FL)

Mr. Dennis Quinn, DAQ, Inc. (NY)

Dr. Donald Wall, University of Florida (FL)

Dr. Craig R. Yoder, Independent Consultant (IN)

