

**U.S. Environmental Protection Agency
Science Advisory Board
Drinking Water Committee**

**Public Teleconference
August 3, 2015
1:00 p.m. – 4:00 p.m. Eastern Time**

Purpose: To discuss the Committee's draft (6-30-2015) report on Review of the EPA's Draft Fourth Contaminant Candidate List (CCL 4)

Attendees:

DWC Members: Kimberly Jones (Chair), Mark Benjamin, Joel Ducoste, Susan Korrick, Kristina Mena, Eileen Murphy, Stephen Randtke, Lynn Roberts, Janice Skadsen, Shane Snyder, Craig Steinmaus, Mark Wiesner, Marylynn Yates (For full details, see Attachment A: Committee Roster)

SAB Staff Office: Stephanie Sanzone, Designated Federal Officer; Chris Zarba, Director

Other Attendees: see Attachment B.

Meeting Materials:

All materials discussed at the meeting are available on the SAB website, www.epa.gov/sab at the August 3, 2015, meeting page:

<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/8bd8cba471eee7cd85257e7400596f06!OpenDocument&Date=2015-08-03>

Summary of Discussions:

Opening Remarks

The teleconference was announced in the Federal Register¹ and proceeded according to the meeting agenda,² as revised. **Stephanie Sanzone**, Designated Federal Officer for the Committee, convened the meeting and noted that Science Advisory Board is authorized by statute (the Environmental Research, Development and Demonstration Act) and chartered under the Federal Advisory Committee Act (FACA). The Drinking Water Committee (DWC) is a standing committee of the SAB and provides advice to the EPA through the SAB on science issues associated with the agency's drinking water program. She noted further that the DWC complies with FACA and EPA procedural policies. This means that meetings are announced and open to the public, deliberations are done in public, meeting minutes are prepared, and all materials prepared for or by the Committee are available to the public. In addition, the Committee's report will be reviewed and discussed by the SAB in a separate public meeting.

She noted that committee members serve as Special Government Employees who are subject to Executive Branch ethics rules and regulations. Prior to the April 29-30, 2015 meeting, all committee members were evaluated for potential conflicts of interest and the SAB Staff Office determined that all members are in compliance with ethics rules that apply to them. Ms. Sanzone noted that all materials for

the meeting are available on the SAB website, including the committee's draft report³ (dated June 30, 2015) on the EPA Draft Fourth Contaminant Candidate List (or CCL 4) and a summary of member comments on the draft committee report.⁴ She added that there were 3 registered public speakers who had requested the opportunity to make oral remarks and several sets of written public comments had been received and posted on the Web page for the meeting. Ms. Sanzone then called the roll, reminded participants to mute their lines when not speaking, and requested that anyone participating on the call who had not already done so should send her an email so that she could include them on a list of participants in the meeting minutes.

Dr. Kimberly Jones, Chair of the DWC, welcomed everyone to the call and thanked the members and the DFO for the hard work in developing the draft report. She described the plan for the meeting, which was to discuss the substantive committee comments on the draft report as captured in the summary of major comments, as well as any other issues that committee members wanted to raise. Dr. Jones then recognized **Eric Burneson** from the EPA Office of Water for his remarks. Mr. Burneson thanked the committee for its continued work on the CCL 4. He noted that the CCL is an important first step in the process of identifying unregulated contaminants that may be important in drinking water and the agency looks forward to receiving the formal recommendations from the SAB.

Public Comments

Dr. Willem Faber, speaking on behalf of the Oxo Process Panel of the American Chemistry Council, provided oral comments⁵ recommending that 1-butanol be removed from the CCL 4. He noted that the concerns in his written comments⁶ regarding developmental toxicity as a basis for listing 1-butanol had been clarified by an email exchange with agency staff, in which EPA explained that the listing had not been based on developmental toxicity but rather on an RfD from a 1986 IRIS evaluation. Dr. Faber noted concerns with the IRIS assessment for 1-butanol and recommended that the synopsis should use a more recent value developed by the Organisation for Economic Cooperation and Development (OECD). In closing, he reiterated his view that 1-butanol is a well-understood alcohol that does not merit inclusion on the CCL.

Drs. Bob West and **Ralph Parod**, speaking on behalf of the American Chemistry Council's Diisocyanates Panel, provided comments⁷ on the DWC draft report and the CCL 4 with respect to toluene diisocyanate (TDI). More detailed discussion was provided in the written comments⁸ submitted prior to the meeting. **Dr. West** noted his support for many of the DWC's recommendations, in particular the recommendation that the agency provide more detail on the screening and scoring schemes used to develop the CCL 4. He further noted that the Contaminant Information Sheet for TDI contained incorrect data on the physical/chemical properties and that more recent Toxics Release Inventory (TRI) data do not indicate TDI releases to water.

Dr. Parod stated that the CCL is to be based on the potential for a contaminant to occur in public drinking water and the potential for health effects. He stated that there would not be any exposure to TDI via drinking water and therefore there would be no health effects attributable to drinking water exposures. He expressed concern that 13 points of the health effects score of 19 for TDI were based solely on a 30-year old study where the contaminant dose was administered in corn oil because the contaminant was too unstable in water.

Summary of Committee Decisions

Dr. Jones thanked the public commenters. She then led the committee through a discussion of the points in the summary comments on the draft report. **Ms. Sanzone** noted that the discussion points focused on the body of the report, and that the Executive Summary and letter to the Administrator would be updated

to reflect changes agreed to for the report. As a result of deliberations on the teleconference, the DWC agreed to revise their draft report as follows:

Regarding clarity of the CCL 4 documents:

- Clarify that the concern over a clear process for removing contaminants from prior lists applies only if the list serves as the basis for a new CCL.
- The documents should clarify limitations in the data used to develop the CCL 4, and the committee's report will discuss recommendations for improving the data for the next CCL.
- The documents should include discussion of how CCL relates to the regulatory determination process.
- New text will be added to discuss the need for EPA to discuss variability and sensitivity of the models used to classify contaminants.

Regarding additional data sources:

- Clarify the recommendation that EPA be more proactive in seeking data on potential contaminants to include on the CCL, from states and others who may have that data.
- Clarify that data should be sought from the recommended additional sources for CCL 4 as feasible, and in more depth for the next CCL.

Regarding contaminants that do not merit listing or that should be added:

- Revise the recommendation about pathogens that are, in effect, already covered by existing regulations to say that these pathogens (such as vegetative bacteria) should be lower priority for inclusion (rather than excluded). Remove the reference to "conventional drinking water treatment" since treatment is not explicitly considered when listing contaminants.
- Clarify that the committee is not recommending that contaminants be rank ordered, but rather that priority categories (e.g., High, Medium, Low) could be used to group contaminants.
- Delete the reference to a 1 percent occurrence threshold as a decision criterion for listing or not listing contaminants.
- Clarify language about DBP to note their "potential human toxicity" and "frequency of occurrence in public water systems"

Regarding recommendations for future CCLs:

- Include a definition for the term "curation" in the context of a knowledge base that integrates contaminant data, weighting methodologies, and evaluation for the CCL.
- Clarify that the system envisioned would be a platform for expanding and updating the data available for CCL analyses.

Regarding specific chemicals discussed by public commenters:

- Although specific chemicals are mentioned in the report, they are provided as examples to illustrate principles that the committee recommends should underlie decisions to list or not list contaminants. The committee did not attempt to evaluate all contaminants on the draft CCL 4. After considerable discussion, the committee voted not to endorse or reject the concerns raised by public comments on specific chemicals because the committee was not able to independently verify those comments.

Next Steps:

Dr. Jones and Ms. Sanzone noted that the committee's draft report would be revised in accordance with changes agreed to during the teleconference, and provided to the DWC for concurrence prior to its submission to the chartered SAB for quality review. Ms. Sanzone requested that all members who had agreed to provide additional language based on the committee discussions should provide that to her by Friday, August 7, 2015.

There being no further discussions, the DFO adjourned the call at 4:30 p.m.

Respectfully Submitted:

/signed/

Stephanie Sanzone
Designated Federal Officer

Certified as Accurate:

/signed/

Dr. Kimberly Jones, Chair
SAB Drinking Water Committee

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by committee members during the course of deliberations within the meeting. Such ideas, suggestions and deliberations do not necessarily reflect consensus advice from committee members. The reader is cautioned to not rely on the minutes to represent final, approved, consensus advice and recommendations offered to the Agency. Such advice and recommendations may be found in the final advisories, commentaries, letters or reports prepared and transmitted to the EPA Administrator following the public meetings.

Attachment A. SAB Drinking Water Committee (2015) Roster

CHAIR

Dr. Kimberly L. Jones, Professor and Chair, Department of Civil and Environmental Engineering, Howard University, Washington, DC

MEMBERS

Dr. Mark Benjamin, Professor, Department of Civil and Environmental Engineering, University of Washington, Seattle, WA

Dr. Joel Ducoste, Professor, Department of Civil, Construction, and Environmental Engineering, College of Engineering, North Carolina State University, Raleigh, NC

Dr. Russell Ford, Global Service Leader - Drinking Water Reuse, CH2M HILL, Parsippany, NJ

Dr. Susan Korrick, Assistant Professor of Medicine, Department of Medicine, Brigham and Women's Hospital, Channing Laboratory, Harvard Medical School, Boston, MA

Dr. Frank Loge, Professor, Department of Civil and Environmental Engineering, University of California-Davis, Davis, CA

Dr. Kristina D. Mena, Associate Professor, Epidemiology, Human Genetics, and Environmental Sciences, School of Public Health, University of Texas Health Science Center at Houston, El Paso, TX

Dr. William Mitch, Associate Professor, Civil and Environmental Engineering, Stanford, Stanford, CA

Dr. Eileen Murphy, Director of Research Development, Office of Research and Economic Development, Rutgers University, Piscataway, NJ

Dr. Stephen Randtke, Professor, Department of Civil, Environmental, and Architectural Engineering, University of Kansas, Lawrence, KS

Dr. A. Lynn Roberts, Professor, Department of Geography and Environmental Engineering, Johns Hopkins University, Baltimore, MD

Dr. Kellogg J. Schwab, Director, Johns Hopkins University Water Institute Program and Center for Water and Health, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

Ms. Janice Skadsen, Senior Environmental Scientist, CDM Smith, Ann Arbor, MI

Dr. Shane Snyder, Professor of Chemical and Environmental Engineering, University of Arizona, Tucson, AZ

Dr. Craig Steinmaus, Public Health Medical Officer III, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, Oakland, CA

Dr. Mark Wiesner, Professor, Department of Civil and Environmental Engineering, Director, Center for the Environmental Implications of NanoTechnology (CEINT), Pratt School of Engineering, Nicholas School of the Environment, Duke University, Durham, NC

Dr. Lloyd Wilson, Research Scientist IV, Bureau of Water Supply Protection, New York State Department of Health, Albany, NY, United States

Dr. Marylynn Yates, Professor of Environmental Microbiology, Department of Environmental Sciences, University of California-Riverside, Riverside, CA

SCIENCE ADVISORY BOARD STAFF

Ms. Stephanie Sanzone, Designated Federal Officer, U.S. Environmental Protection Agency, Science Advisory Board (1400R), 1200 Pennsylvania Avenue, NW, Washington, DC

Attachment B. Other Attendees

The following persons requested call-in information for the August 3, 2015, teleconference call of the SAB Drinking Water Committee.

Attendee	Affiliation
Dan Askenaizer	WQTS, Inc.
Bob Benson	EPA Region 8
Norman Birchfield	EPA/ORD
Eric Burneson	EPA/OW
Sandra Carey	International Molybdenum Assoc.
Laura Cummings	Southeast Morris County Municipal Utilities Authority, NJ
Amanda P. Dail	UL LLC
Joyce Donohue	EPA/OW
Willem Faber	Oxo Process Panel of the American Chemistry Council
Helen Goeden, Ph.D.	Minnesota Department of Health
Ahmed Hafez	EPA/OW
Hannah Holsinger	EPA/OW
Lisa Huff	EPA/OW
Bruce A. Macler	EPA Region 9
Greg Miller	EPA/OCHP
Sahar Osman-Sypher	American Chemistry Council
Amanda Palleschi	Inside EPA
Ralph Parod	BASF Corporation
Russ Perkins	EPA/OW
Resha M. Putzrath	Navy and Marine Corps Public Health Center
Kimberly Redden	Water Quality Association
Crystal Rodgers-Jenkins	EPA/OW
Patsy Root	IDEXX Laboratories, Inc.
Meredith Russell	EPA/OW
Nicole Shao	EPA/ORD
Lameka Smith	EPA/OW
Clifton Townsend	EPA/OW
Dan Vergano	BuzzFeed
Patricia Ware	BNA
Bob West	The Dow Chemical Co
Kimberly White	American Chemistry Council

Material Cited

All materials discussed at the meeting are available on the SAB website, at www.epa.gov/sab on the August 3, 2015, Drinking Water Committee meeting page:

<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/8bd8cba471eee7cd85257e7400596f06!OpenDocument&Date=2015-08-03>

¹ Federal Register Notice announcing the meeting, 80 FR 39104-39105.

² Agenda for the Teleconference, August 3, 2015

³ SAB Draft Report (6-30-2015) on Review of the EPA's draft Fourth Contaminant Candidate List (CCL 4)

⁴ Summary of Comments from DWC Members on the June 30, 2015 Committee draft report on CCL 4

⁵ Presentation by Willem Faber, on behalf of Oxo Process Panel, American Chemistry Council , regarding Proposal to SAB for the Removal of 1-Butanol from the CCL4 List

⁶ American Chemistry Council's Oxo Process Panel Comments on the Proposed Listing of 1-butanol under the Draft CCL4

⁷ Oral Statement by Drs. West and Parod on behalf of the American Chemistry Council's (ACC) Diisocyanates Panel

⁸ Comments from the American Chemistry Council's Diisocyanates Panel on the Draft Drinking Water Contaminant Candidate List 4