

**Summary Minutes of the
U.S. Environmental Protection Agency (EPA)
Science Advisory Board (SAB)
Quality Review Public Teleconference
Public Meeting
May 18, 2011**

Date and Time: Wednesday, May 18, 2011, 12:00 PM – 3:00 PM ET

Location: Teleconference

Purpose: To conduct a quality review of a draft report, *SAB Review of EPA's Approach for Developing Lead Dust Hazard Standards for Residences (November 2010 Draft) and Approach for Developing Lead Dust Hazard Standards for Public and Commercial Buildings (November 2010 Draft)*

Participants: SAB Members (for full roster, see Attachment A)

Dr. Deborah L. Swackhamer, Chair

Dr. David T. Allen

Dr. Timothy J. Buckley

Dr. Terry Daniel

Dr. Costel Denson

Dr. Otto Doering III

Dr. Taylor T. Eighmy

Dr. Elaine Faustman

Dr. Bernd Kahn

Dr. Nancy K. Kim

Dr. Cecil Lue-Hing

Dr. Lee D. McMullen

Dr. James R. Mihelcic

Dr. Jana Milford

Dr. Horace Moo-Young

Dr. Eileen Murphy

Dr. Duncan Patten

Dr. Stephen M. Roberts

Dr. Amanda Rodewald

Dr. James Sanders

Dr. Kathleen Segerson

Dr. John Vena

Dr. Thomas R. Zoeller

Mr. Aaron Yeow, Designated Federal Officer (DFO)

Other Attendees (See Attachment B)

Opening Remarks

Mr. Aaron Yeow, the DFO for the SAB's review of the SAB Lead Review Panel's draft report, opened the meeting. He noted that as required under the Federal Advisory Committee Act (FACA), the SAB's deliberations are held in public with advanced notice given in the Federal Register¹, and the meeting minutes will be made publicly available after the meeting. He noted that the Panel received no written public comments and no requests from the public to present oral comments. He also noted that the Panel members are all subject to federal ethics regulations and conflict-of-interest laws that pertain to them. He then turned the meeting over to Dr. Deborah Swackhamer, the Chair of the SAB.

Purpose of Meeting and Review of the Agenda

Dr. Deborah Swackhamer, the SAB Chair, welcomed SAB members, reviewed the purpose of the meeting, and went through the agenda². She reminded SAB members that quality reviews focus on four questions: (1) Were the original charge questions to SAB Standing or Ad Hoc Committees adequately addressed? (2) Are there any technical errors or omissions in the report or issues that are not adequately dealt with in the Committee's report? (3) Is the Committee's report clear and logical? (4) Are the conclusions drawn or recommendations provided supported by the body of the Committee's report?

She asked Dr. Timothy Buckley, Chair of the SAB Lead Review Panel, to give an overview of the Panel's report.

Overview of Draft Report

Dr. Buckley provided an overview of the Panel's Draft Report³. The Panel reviewed two EPA documents, *Approach for Developing Lead Dust Hazard Standards for Residences (November 2010 Draft)*⁴ and *Approach for Developing Lead Dust Hazard Standards for Public and Commercial Buildings (November 2010 Draft)*⁵. Dr. Buckley summarized the Panel's major conclusions and recommendations from the report.

Chartered SAB Discussion

Dr. Swackhamer identified the lead reviewers to begin the SAB discussion. Dr. Elaine Faustman found the Panel's report to be a directed and on-target review of EPA's documents. She commented on the strength of the Panel, which consisted of well-recognized leading scientists in childhood lead exposure and effects and included a group of experts in exposure and biokinetic modeling, and general public health and toxicology. She liked the combining of the response to both documents and appreciated the methodical review of each of the charge questions. The Panel provided thoughtful and constructive responses to the charge questions. She indicated that the Panel should recommend that EPA remove "value-laden" statements, such as "reasonable ranges" or "reasonable input". The Panel should specifically state whether the EPA documents covered daycare facilities. Lastly, she recommended that the Panel move some of the language regarding the concurrence of the Panel on the target blood lead concentrations for children into

the letter to the Administrator. She also would like the Panel to state something about adult blood lead levels.

Dr. Nancy Kim found the report to be very well done. She noted some inconsistencies between the letter, the executive summary, and the body of the report. She was not clear how the incremental approach fit in with the selection of the target blood lead concentrations.

Dr. Eileen Murphy noted some of the same inconsistencies the Dr. Faustman and Dr. Kim did, but wasn't overly bothered by them. She felt that overall the report read well, she could follow the conclusions and recommendations, and agreed with the recommendations.

Dr. Swackhamer asked Dr. Buckley to respond to the lead reviewer comments. Dr. Buckley appreciated the comments and believed they were on-target. He noted the inconsistency between the letter and report. He indicated that the comments could all be addressed. He indicated one exception was the adult blood lead levels. The Panel was not asked by EPA to weigh in on the selection of the target blood lead levels, but the Panel made a statement about the appropriate childhood blood lead levels anyways. The Panel did not deliberate on appropriate adult blood lead levels. It was agreed to just state what the adult blood lead levels were in EPA's document.

Dr. Swackhamer then asked other chartered SAB members for comments. The SAB had further discussion of Dr. James Mihelcic's comment on environmental justice, on whether the Panel felt that EPA's document would adequately protect disadvantaged groups. Dr. Buckley indicated that the Panel did spend time recognizing that certain portions of the population are disproportionately affected by lead exposure. When EPA sets the standard, presumably it will be set to protect the most vulnerable population, but that the Panel did not explicitly use the term "environmental justice". Some of the members suggested that the Panel should explicitly use that term. Dr. Buckley suggested that maybe it could go into the first bullet describing the context of the standards. Dr. Terry Daniel had a comment regarding environmental justice and the incremental approach. He was concerned that in the incremental approach the other sources of lead were ignored. Dr. Buckley indicated that one could look at percentiles of the population that exceed a target blood lead increment due to dust lead exposure. Dr. Daniel indicated that he would like an acknowledgement of the downside of the incremental approach in this regards. Dr. Roberts wanted more of an acknowledgement of the downsides of the incremental approach as well.

Dr. Swackhamer asked whether any members had additional comments. There were no further comments so Dr. Swackhamer asked for a motion on disposal of the report. She noted that the Board's quality review could result in: 1) approval of the report either as is or subject to editorial changes and review by the Chair, 2) approval of the report subject to re-review by designated Board members, or 3) return of the draft report to the authoring panel or committee for further work so that a revised report may be brought before the Board for a second quality review. A member moved that the report be approved subject to editorial changes and review by the Chair. The motion was seconded. The Chair asked for a voice vote to approve the motion. The motion carried.

Dr. Swackhamer then thanked Dr. Buckley and members of the SAB Lead Review Panel for submitting an excellent report.

With the business concluded, the Designated Federal Officer adjourned the meeting at 1:00 PM ET.

Respectfully Submitted:

Certified as True:

/signed/

/signed/

Mr. Aaron Yeow
Designated Federal Officer
EPA SAB Staff Office

Dr. Deborah L. Swackhamer
SAB Chair

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by Panel members during the course of deliberations within the meeting. Such ideas, suggestions and deliberations do not necessarily reflect consensus advice from the Panel 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.

Materials Cited

The following meeting materials are available on the SAB website: <http://www.epa.gov/sab>, at the [May18, 2011 Chartered SAB Meeting page](#):

¹ Federal Register Notice Announcing the Meeting

² Agenda

³ Draft (04/26/11) SAB Review of EPA's Approach for Developing Lead Dust Hazard Standards for Residences and Public and Commercial Buildings

⁴ Approach for Developing Lead Dust Hazard Standards for Residences (November 2010 Draft)

⁵ Approach for Developing Lead Dust Hazard Standards for Public and Commercial Buildings (November 2010 Draft)

ATTACHMENT A - ROSTER

U.S. Environmental Protection Agency Science Advisory Board BOARD

CHAIR

Dr. Deborah L. Swackhamer, Professor and Charles M. Denny, Jr., Chair in Science, Technology and Public Policy- Hubert H. Humphrey School of Public Affairs and Co-Director of the Water Resources Center, University of Minnesota, St. Paul, MN

SAB MEMBERS

Dr. David T. Allen, Professor, Department of Chemical Engineering, University of Texas, Austin, TX

Dr. Claudia Benitez-Nelson, Full Professor and Director of the Marine Science Program, Department of Earth and Ocean Sciences , University of South Carolina, Columbia, SC

Dr. Timothy J. Buckley, Associate Professor and Chair, Division of Environmental Health Sciences, College of Public Health, The Ohio State University, Columbus, OH

Dr. Patricia Buffler, Professor of Epidemiology and Dean Emerita, Department of Epidemiology, School of Public Health, University of California, Berkeley, CA

Dr. Ingrid Burke, Director, Haub School and Ruckelshaus Institute of Environment and Natural Resources, University of Wyoming, Laramie, WY

Dr. Thomas Burke, Professor, Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

Dr. Terry Daniel, Professor of Psychology and Natural Resources, Department of Psychology, School of Natural Resources, University of Arizona, Tucson, AZ

Dr. George Daston, Victor Mills Society Research Fellow, Product Safety and Regulatory Affairs, Procter & Gamble, Cincinnati, OH

Dr. Costel Denson, Managing Member, Costech Technologies, LLC, Newark, DE

Dr. Otto C. Doering III, Professor, Department of Agricultural Economics, Purdue University, W. Lafayette, IN

Dr. David A. Dzombak, Walter J. Blenko Sr. Professor of Environmental Engineering ,
Department of Civil and Environmental Engineering, College of Engineering, Carnegie Mellon
University, Pittsburgh, PA

Dr. T. Taylor Eighmy, Vice President for Research, Office of the Vice President for Research,
Texas Tech University, Lubbock, TX

Dr. Elaine Faustman, Professor and Director, Institute for Risk Analysis and Risk
Communication, School of Public Health, University of Washington, Seattle, WA

Dr. John P. Giesy, Professor and Canada Research Chair, Veterinary Biomedical Sciences and
Toxicology Centre, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

Dr. Jeffrey K. Griffiths, Associate Professor, Department of Public Health and Community
Medicine, School of Medicine, Tufts University, Boston, MA

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

Dr. Bernd Kahn, Professor Emeritus and Associate Director, Environmental Radiation Center,
Georgia Institute of Technology, Atlanta, GA

Dr. Agnes Kane, Professor and Chair, Department of Pathology and Laboratory Medicine,
Brown University, Providence, RI

Dr. Madhu Khanna, Professor, Department of Agricultural and Consumer Economics,
University of Illinois at Urbana-Champaign, Urbana, IL

Dr. Nancy K. Kim, Senior Executive, Health Research, Inc., Troy, NY

Dr. Catherine Kling, Professor, Department of Economics, Iowa State University, Ames, IA

Dr. Kai Lee, Program Officer, Conservation and Science Program, David & Lucile Packard
Foundation, Los Altos, CA (affiliation listed for identification purposes only)

Dr. Cecil Lue-Hing, President, Cecil Lue-Hing & Assoc. Inc., Burr Ridge, IL

Dr. Floyd Malveaux, Executive Director, Merck Childhood Asthma Network, Inc., Washington,
DC

Dr. Lee D. McMullen, Water Resources Practice Leader, Snyder & Associates, Inc., Ankeny,
IA

Dr. Judith L. Meyer, Professor Emeritus, Odum School of Ecology, University of Georgia,
Lopez Island, WA

Dr. James R. Mihelcic, Professor, Civil and Environmental Engineering, University of South Florida, Tampa, FL

Dr. Jana Milford, Professor, Department of Mechanical Engineering, University of Colorado, Boulder, CO

Dr. Christine Moe, Eugene J. Gangarosa Professor, Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, GA

Dr. Horace Moo-Young, Dean and Professor, College of Engineering, Computer Science, and Technology, California State University, Los Angeles, CA

Dr. Eileen Murphy, Grants Facilitator, Ernest Mario School of Pharmacy, Rutgers University, Piscataway, NJ

Dr. Duncan Patten, Research Professor, Hydroecology Research Program , Department of Land Resources and Environmental Sciences, Montana State University, Bozeman, MT

Dr. Stephen Polasky, Fesler-Lampert Professor of Ecological/Environmental Economics, Department of Applied Economics, University of Minnesota, St. Paul, MN

Dr. Arden Pope, Professor, Department of Economics, Brigham Young University , Provo, UT

Dr. Stephen M. Roberts, Professor, Department of Physiological Sciences, Director, Center for Environmental and Human Toxicology, University of Florida, Gainesville, FL

Dr. Amanda Rodewald, Professor of Wildlife Ecology, School of Environment and Natural Resources, The Ohio State University, Columbus, OH

Dr. Jonathan M. Samet, Professor and Flora L. Thornton Chair, Department of Preventive Medicine, University of Southern California, Los Angeles, CA

Dr. James Sanders, Director and Professor, Skidaway Institute of Oceanography, Savannah, GA

Dr. Jerald Schnoor, Allen S. Henry Chair Professor, Department of Civil and Environmental Engineering, Co-Director, Center for Global and Regional Environmental Research, University of Iowa, Iowa City, IA

Dr. Kathleen Segerson, Philip E. Austin Professor of Economics , Department of Economics, University of Connecticut, Storrs, CT

Dr. Herman Taylor, Director, Principal Investigator, Jackson Heart Study, University of Mississippi Medical Center, Jackson, MS

Dr. Barton H. (Buzz) Thompson, Jr., Robert E. Paradise Professor of Natural Resources Law at the Stanford Law School and Perry L. McCarty Director, Woods Institute for the Environment, Stanford University, Stanford, CA

Dr. Paige Tolbert, Professor and Chair, Department of Environmental Health, Rollins School of Public Health, Emory University, Atlanta, GA

Dr. John Vena, Professor and Department Head, Department of Epidemiology and Biostatistics, College of Public Health, University of Georgia, Athens, GA

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

Dr. Robert Watts, Professor of Mechanical Engineering Emeritus, Tulane University, Annapolis, MD

Dr. R. Thomas Zoeller, Professor, Department of Biology, University of Massachusetts, Amherst, MA

SCIENCE ADVISORY BOARD STAFF

Dr. Angela Nugent, Designated Federal Officer, U.S. Environmental Protection Agency, Washington, DC

Mr. Aaron Yeow, Designated Federal Officer, U.S. Environmental Protection Agency, Washington, DC

**ATTACHMENT B – Other Attendees
SAB Quality Review Teleconference**

May 18, 2011

Name	Affiliation
Beck, Kimberly	US Army Public Health Command
Belfit, Victoria	US Army Institute for Public Health
Bresler, Faye	Defense Logistics Agency
Field, Matthew	InsideEPA
Knight, Maureen	American Architectural Manufacturers Association (AAMA)
Kurtz, Katharine	US Navy
Miller, Laurie	US Army Public Health Command
Mosby, Jackie	USEPA
Parker, Debra	US Army Public Health Command
Wilson, Linda	New York State Office of the Attorney General