

**Summary Minutes of the  
U.S. Environmental Protection Agency (EPA)  
Science Advisory Board (SAB)  
Lead Review Panel  
Public Teleconference  
February 22, 2011**

Date and Time: Tuesday, February 22, 2011, 1:00 PM – 5:00 PM ET

Location: Teleconference Only

Purpose: The purpose of the meeting was to review the Panel’s Draft Report on two EPA documents: (1) *Approach for Developing Lead Dust Hazard Standards for Residences (November 2010 Draft)*, and (2) *Approach for Developing Lead Dust Hazard Standards for Public and Commercial Buildings (November 2010 Draft)*.

Participants: Lead Review Panel (for full roster, see Attachment A)

Dr. Timothy Buckley, Chair

Dr. Richard Canfield

Dr. Jack Caravanos

Dr. Scott Clark

Dr. Kim Dietrich

Dr. Philip E. Goodrum

Dr. Sean Hays

Dr. Andrew Hunt

Dr. David E. Jacobs

Dr. Michael A. Jayjock

Dr. Michael Kosnett

Dr. Bruce Lanphear

Dr. Howard Mielke

Dr. Joel Pounds

Dr. Michael Rabinowitz

Dr. Michael Weitzman

Mr. Aaron Yeow, Designated Federal Officer (DFO)

Dr. Jennifer Seed, EPA OPPT

Other Attendees (See Attachment B)

## Opening Remarks

Mr. Aaron Yeow, the DFO for the SAB Lead Review Panel, opened the meeting. He noted that as required under the Federal Advisory Committee Act (FACA), the Committee's deliberations are held in public with advanced notice given in the Federal Register<sup>1</sup>, and the meeting minutes will be made publicly available after the meeting. He noted that the Panel did not receive any written comments nor any requests to provide an oral statement. He also noted that the Panel members are all subject to federal ethics regulations and conflict-of-interest laws that pertain to them. He turned the meeting over to Dr. Timothy Buckley, Chair of the SAB Lead Review Panel.

Dr. Timothy Buckley, welcomed everyone and indicated that the purpose of the meeting was to review the Panel's Draft Report<sup>2</sup> on the Agency's technical documents, *Approach for Developing Lead Dust Standards for Residences (November 2010 Draft)*<sup>3</sup> and *Approach for Developing Lead Dust Standards for Commercial and Public Buildings (November 2010 Draft)*<sup>4</sup>. He reviewed the Agenda for the meeting<sup>5</sup>, and with no public comments, he introduced Dr. Jennifer Seed from EPA's Office of Pollution Prevention and Toxics (OPPT) for EPA's Comments.

### *EPA Comments*

Dr. Jennifer Seed, EPA OPPT, thanked the Panel for the advice provided in the draft report, but asked the Panel to provide clarification on three points. The first point was clarification of the Panel's recommendation to use a Geometric Standard Deviation (GSD) value of 1.6 for the biokinetic modeling, as mentioned on p. 14 of the draft report. The second point was clarification of how the first two model runs on pp. 20-21 of the draft report would be used in the context of developing lead hazard standards. Lastly, she requested clarification on whether the Panel had specific recommendations for the non-zero baseline dust lead loading level to be used in the incremental risk assessment approach mentioned on p. 18 of the draft report.

The Panel clarified that their recommendation is to use a GSD of 1.6 unless EPA can provide justification for using a different value. The Panel reiterated that the GSD is intended to represent inter-individual variability in blood lead levels given the same exposure. Dr. Goodrum agreed to make edits to p. 14 of the draft report to clarify this. Regarding the second point, the Panel responded that the purpose of the three different biokinetic model runs was for a sensitivity analysis and that there was value in doing these runs when comparing the results to the empirical modeling. Dr. Kosnett agreed to provide clarifying edits to pages 20-21 on the value of performing the three model runs. Regarding the third point, the Panel did not have a specific recommendation for a non-zero baseline dust loading level. There was discussion over whether the standard covered lead dust from non-paint sources and the feasibility of lead dust source apportionment. Dr. Goodrum agreed to modify point 2 on lines 34-39 of page 18 to reflect the Panel's discussion.

### *Discussion of Response to Charge Questions*

Regarding the response to Charge Question 1 in the draft report, one panel member suggesting adding a statement that the lead hazard standard for public and commercial buildings intended to protect against IQ deficits in developing fetuses in women of child-bearing age in addition to protecting against hypertension in adults. Additionally, Dr. Kosnett agreed to make some clarifying edits to lines 43-44 on page 8.

Regarding the response to Charge Question 2 in the draft report, the Panel identified the need to revise the statement on page 10, lines 24-28 of the draft report, which criticized EPA for misinterpreting the floor-dust loading interaction. The Panel believed that EPA characterized it correctly and agreed to delete the paragraph. One panel member was concerned about the lack of maturity and documentation of the SURVEY statistical package used by EPA for the QL modeling. Dr. Canfield agreed to add this to the report. Dr. Kosnett agreed to make edits to clarify the Panel's comments and recommendations on window sill dust lead (p. 11 lines 32-40), detection limits (p. 12, lines 37-44), floor type (p. 13 lines 1-7), and comparison of NHANES data with other studies (p. 13, lines 11-16).

Regarding the response to Charge Question 3 in the draft report, Dr. Clark agreed to make editorial revisions to lines 39-41 on page 14, and Dr. Pounds agreed to make changes to clarify their comments and recommendations regarding steady-state exposures and entrainment of dust (p. 15 lines 36-45 and p. 16, lines 1-2).

Regarding the response to Charge Question 4 in the draft report, the Panel agreed to make edits to clarify its comments and recommendations regarding Monte Carlo analysis, the dust lead loading values of interest from NHANES, and comparison of empirical and biokinetic modeling approaches. Dr. Goodrum agreed to make changes to lines 38-40 on page 19 and Dr. Lanphear agreed to send Dr. Goodrum suggested edits for lines 8-13 on page 19 and lines 31-36 on page 21. The Panel had no comments on the response to Charge Question 5 in the draft report.

### *Discussion of Executive Summary*

The changes made to the report will also be reflected in the Executive Summary and Letter to Administrator. Various clarifying edits will be made to the Executive Summary.

### *Discussion of Letter to Administrator*

Various clarifying edits will be made to the Letter to Administrator.

Dr. Buckley provided a summary of key points and discussed next steps and action items.

With the business concluded, the Designated Federal Officer adjourned the meeting at 4:30 PM ET.

Respectfully Submitted:

Certified as True:

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Mr. Aaron Yeow  
Designated Federal Officer  
EPA SAB Staff Office

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Dr. Timothy Buckley  
Chair  
SAB Lead Review Panel

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 [February 22, 2011 SAB Lead Review Panel Meeting page](#):

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<sup>1</sup> Federal Register Notice Announcing the Meeting

<sup>2</sup> Draft (02/07/11) SAB Review of EPA's Approach for Developing Lead Dust Hazard Standards for Residences and Public and Commercial Buildings

<sup>3</sup> PDF for Approach for Developing Lead Dust Hazard Standards for Residences (November 2010 Draft)

<sup>4</sup> PDF for Approach for Developing Lead Dust Hazard Standards for Public and Commercial Buildings (November 2010 Draft)

<sup>5</sup> Agenda for February 22, 2011 Public Meeting

## **ATTACHMENT A - ROSTER**

### **U.S. Environmental Protection Agency Science Advisory Board Lead Review Panel**

#### **CHAIR**

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

#### **MEMBERS**

**Dr. Richard Canfield**, Senior Research Associate, Division of Nutritional Sciences, Cornell University, Ithaca, NY

**Dr. Jack Caravanos\***, Associate Professor, Environmental & Occupational Health Sciences, School of Health Sciences, Hunter College of the City University of New York, New York, NY

**Dr. Scott Clark**, Professor, Environmental Health, College of Medicine, University of Cincinnati, Cincinnati, OH

**Dr. Kim Dietrich**, Professor, Department of Environmental Health, College of Medicine, University of Cincinnati, Cincinnati, OH

**Dr. Philip E. Goodrum**, Senior Project Manager, Environmental Resources Management (ERM), Dewitt, NY

**Dr. Sean Hays**, President, Summit Toxicology, Allenspark, CO

**Dr. Andrew Hunt**, Assistant Professor, Department of Earth and Environmental Sciences, University of Texas at Arlington, Arlington, TX

**Dr David E. Jacobs**, Adjunct Associate Professor, School of Public Health, Division of Occupational and Environmental Health MC922, University of Illinois at Chicago, Chicago, IL

**Dr. Michael A. Jayjock**, Senior Analyst, The LifeLine Group, Langhorne, PA

**Dr. Michael Kosnett**, Associate Clinical Professor, Division of Clinical Pharmacology and Toxicology, Department of Medicine, University of Colorado Health Sciences Center, Denver, CO

**Dr. Bruce Lanphear**, Professor, Children's Environmental Health, Faculty of Health Sciences, Simon Fraser University, Vancouver, BC, Canada

**Dr. Thomas Louis**, Professor, Department of Biostatistics, Johns Hopkins University  
Bloomberg School of Public Health, Baltimore, MD

**Dr. Howard Mielke**, Research Professor, Department of Chemistry and Center for  
Bioenvironmental Research, Tulane University, New Orleans, LA

**Dr. Joel Pounds**, Scientist, Cell Biology & Biochemistry, Biological Sciences Division, Battelle  
- Pacific Northwest National Laboratory, Richland, WA

**Dr. Michael Rabinowitz**, Geochemist, Clinical Instructor in Neurology, Harvard University,  
Newport, RI

**Dr. Ian von Lindern**, President, TerraGraphics Environmental Engineering, Inc., Moscow, ID

**Dr. Michael Weitzman**, Professor, Pediatrics; Psychiatry, New York University School of  
Medicine, New York, NY

**SCIENCE ADVISORY BOARD STAFF**

**Mr. Aaron Yeow**, Designated Federal Officer, United States Environmental Protection Agency,  
Washington DC

\* Did not participate in the review.

**ATTACHMENT B – Other Attendees  
SAB Lead Review Panel Public Meeting**

**February 22, 2011**

<b>Name</b>	<b>Affiliation</b>
Bryant, Chris	
Howard, Angela	EPA
Kurtz, Katharine	US Navy
Lee, Eileen	National Multi Housing Council (NMHC)
Luxton, Jane	Pepper Hamilton LLP
Riggs, Russell	National Association of Realtors (NAR)
Thurman, Sean	Associated Builders and Contractors
Watkins, Matthew	National Association of Home Builders
Walsh, William	Pepper Hamilton LLP
Wilson, Linda	New York State Attorney General's Office