

**Summary Minutes of the  
U.S. Environmental Protection Agency (EPA)  
Clean Air Scientific Advisory Committee (CASAC)  
Oxides of Nitrogen Review Panel  
Public Teleconference  
May 7, 2014**

Date and Time: Wednesday, May 7, 2014, 9:00 AM – 1:00 PM ET

Location: Telephone only

Purpose: The purpose of the meeting was to discuss the Draft CASAC Review of the EPA's *Integrated Review Plan for the Primary National Ambient Air Quality Standards for Nitrogen Dioxide (External Review Draft)*<sup>1</sup> and the Draft CASAC Review of the EPA's *Integrated Science Assessment for Oxides of Nitrogen – Health Criteria (First External Review Draft – November 2013)*<sup>2</sup>

Participants: Chartered CASAC

Dr. H. Christopher Frey, Chair (for full CASAC, see CASAC roster<sup>3</sup>)

Mr. George Allen

Dr. Jack Harkema

Dr. Helen Suh

Dr. Kathleen Weathers

Dr. Ronald Wyzga

CASAC Oxides of Nitrogen Review Panel (for full Panel, see Panel roster<sup>4</sup>)

Dr. H. Christopher Frey, Chair

Mr. George Allen

Dr. Matthew Campen

Dr. Douglas Dockery

Dr. Philip Fine

Dr. Panos Georgopoulos

Dr. Jack Harkema

Dr. Michael Jerrett

Dr. Joel Kaufman

Dr. Michael Kleinman

Dr. Timothy Larson

Dr. Jeremy Sarnat

Dr. Helen Suh

Dr. Richard Schlesinger

Dr. Lianne Sheppard

Dr. Ronald Wyzga

Dr. Jim Zhang

Mr. Aaron Yeow, Designated Federal Office (DFO)

Other Attendees (See Attachment A)

**Wednesday, May 7, 2014**

## **Opening Remarks**

Mr. Aaron Yeow, DFO, opened the meeting. He noted that as required under the Federal Advisory Committee Act (FACA), the Panel's deliberations are held in public with advanced notice given in the Federal Register<sup>5</sup>, and the meeting minutes will be made publicly available after the meeting. He noted that there were two public comment periods noted on the agenda where members of the public registered in advance with the SAB Staff Office to make oral comments. He noted that the Panel received written public comments, which were also posted on the meeting webpage. He stated that the SAB Staff Office determined that there were no issues with conflict-of-interest nor any issues with an appearance of a lack of impartiality for any of the Panel members. He then turned it over to Dr. Chris Frey, Chair of the CASAC.

Dr. Frey welcomed everyone and provided an overview of the Agenda<sup>6</sup>.

## **Public Comments on the Draft CASAC IRP Report**

Julie Goodman, Gradient, presented comments<sup>7</sup> on behalf of the American Petroleum Institute, which focused on the adequacy of the EPA's causal framework and urging the CASAC to strengthen its comments regarding the evaluation of study quality, to consider issues related to how measurement error will be addressed, and to consider the evaluation of threshold concentration-response functions.

## **Discussion of the Draft CASAC IRP Report**

### *Consensus Responses to Charge Questions*

The Panel had discussion about clarifying the language about the site "meta-data" on page 7 lines 37-39. For the consensus response to the Chapter 4 charge question, the Panel had discussion about removing the statement about the IRP being an artificial exercise, on page 8, lines 39-42 and clarifying lines 1-7 on page 9 to include information about confounding. There was discussion about the need for a better discussion of how exposure assessment relates to health effects. The panel agreed to add a few sentences about the need for more discussion of at-risk populations on line 29, page 9.

### *Letter to Administrator*

There was discussion about adding a note that the IRP be completed prior to the ISA for future reviews as well as reflecting the revisions discussed for the consensus response to the Chapter 4 charge questions.

## **Disposition of Draft IRP Report**

The Chartered CASAC members approved the report with the changes previously discussed by the Panel.

## **Public Comments on Draft CASAC ISA Report**

Julie Goodman, Gradient, presented comments<sup>8</sup> on behalf of the American Petroleum Institute, focusing on the plausibility of the proposed modes of action occurring in humans, criteria for evaluating the robustness of study results incorporated as evidence in the causal framework, and why the framework for evaluating at-risk factors differs for the causal determination framework.

## **Discussion of Draft CASAC ISA Report**

### *Consensus Responses to Charge Questions*

There was discussion about moving the statement about panel studies on page 8 lines 16-19 to page 19 line 35. It was agreed to make revisions to the statement regarding Table 1-1 on page 9, lines 17-24 and lines 37-38. For the response to charge questions on Chapter 2, there was agreement on modifying the statement on page 11 line 23 to give the EPA the discretion on whether to split the exposure section into a new chapter. There were other revisions for clarity discussed for responses to the charge questions for Chapter 2 and Chapter 3. For the responses to the charge questions for Chapters 4 and 5, there was discussion about distinguishing between confounders, copollutants, and effect modification and there were specific revisions discussed for the response to charge questions g and h.

### *Letter to Administrator*

There were discussions on making revisions to the letter consistent with the revisions that will be made to the consensus responses to the charge questions.

## **Disposition of Draft ISA Report**

The Chartered CASAC members approved the report with the changes previously discussed by the Panel. There were revisions discussed to make the discussion of the panel's review of the meta-analysis clearer.

## **Summary and Action Items**

Dr. Frey discussed action items and the remaining schedule for finalizing the reports.

The meeting was adjourned by Mr. Yeow at 1:00 pm.

Respectfully Submitted:

Certified as Accurate:

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Mr. Aaron Yeow  
Designated Federal Officer  
EPA SAB Staff Office

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Dr. H. Christopher Frey  
Chair  
CASAC

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 CASAC website: <http://www.epa.gov/casac>, at the [May 7, 2014 CASAC Oxides of Nitrogen Review Panel Meeting page](#):

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<sup>1</sup> 04-16-14 Draft CASAC Review of the EPA's Integrated Review Plan for the Primary National Ambient Air Quality Standards for Nitrogen Dioxide

<sup>2</sup> 04-16-14 Draft CASAC Review of the EPA's Integrated Science Assessment for Oxides of Nitrogen – Health Criteria (First External Review Draft)

<sup>3</sup> CASAC Roster

<sup>4</sup> CASAC Oxides of Nitrogen Review Panel Roster

<sup>5</sup> Federal Register Notice Announcing the Public Meeting

<sup>6</sup> Agenda

<sup>7</sup> Comments on the Draft CASAC IRP Report by Julie Goodman, Gradient, on behalf of the American Petroleum Institute

<sup>8</sup> Comments on the Draft CASAC ISA Report by Julie Goodman, Gradient, on behalf of the American Petroleum Institute

**ATTACHMENT A – Other Attendees**  
**CASAC Oxides of Nitrogen Review Panel Public Meeting**

<b>Name</b>	<b>Affiliation</b>
Brown, James	USEPA
Buckley, Barbara	USEPA
Burkett, Jeff	The Empire District Electric Co.
Driver, Laurel	USEPA
Dutton, Steve	USEPA
Ethridge, Shannon	Texas Commission on Environmental Quality
Fritz, Patricia	New York State Department of Health
Goodman, Julie	Gradient
Graham, Stephen	USEPA
Guterrez, Katie	Nebraska Department of Environmental Quality
Hassett-Sipple, Beth	USEPA
Hemby, James	USEPA
Hines, Erin	USEPA
Jansen, John	Southern Company
Jenkins, Scott	USEPA
Kotchmar, Dennis	USEPA
Lippman, Daniel	Greenwire
Luben, Tom	USEPA
McCormick, Lindsay	USEPA
McDow, Stephen	USEPA
Naess, Liz	USEPA
Naidenko, Olga	Environmental Working Group
Nystrom, Marci	California Air Resources Board
Oakes, Michelle	USEPA
Orlin, David	USEPA
Owen, Chris	USEPA
Owens, Beth	USEPA
Pinto, Joseph	USEPA
Radick, Lea	Inside EPA
Richmond-Bryant, Jennifer	USEPA
Sacks, Jason	USEPA
Scavo, Kimber	USEPA
Tsang, Linda	American Forest and Paper Association
Vandenberg, John	USEPA
Watkins, Nealson	USEPA
Wesson, Karen	USEPA
Wilson, Linda	New York State Office of the Attorney General
Young, Brianna	USEPA