

**Summary Minutes of the  
U.S. Environmental Protection Agency (EPA)  
Clean Air Scientific Advisory Committee (CASAC) and  
CASAC Sulfur Oxides Panel  
Public Teleconference  
April 6, 2016**

Date and Time: Wednesday, April 6, 2016, 2:00 PM – 6:00 PM ET

Location: Telephone only

Purpose: To discuss the draft CASAC Report, *03-10-16 Draft CASAC Review of the EPA's Integrated Science Assessment for Sulfur Oxides - Health Criteria (External Review Draft – November 2015)*.

Participants: Chartered CASAC (see Chartered CASAC roster<sup>1</sup>)

Dr. Ana Diez Roux, Chair  
Mr. George A. Allen  
Dr. Judith Chow  
Dr. Ivan Fernandez  
Dr. Jack Harkema  
Dr. Lianne Sheppard  
Dr. Ronald Wyzga

CASAC Sulfur Oxides Panel (for full Panel, see CASAC Sulfur Oxides Panel roster<sup>2</sup>)

Dr. Ana Diez Roux, Chair  
Mr. George A. Allen  
Dr. John Balmes  
Dr. Judith Chow  
Dr. Aaron Cohen  
Dr. Alison Cullen  
Dr. Delbert Eatough  
Dr. H. Christopher Frey  
Dr. William Griffith  
Dr. Steven Hanna  
Dr. Jack Harkema  
Dr. Daniel Jacob  
Dr. Farla Kaufman  
Dr. Richard Schlesinger  
Dr. Lianne Sheppard  
Dr. Ronald Wyzga

Mr. Aaron Yeow, Designated Federal Office (DFO)  
Dr. Steve Dutton, EPA NCEA  
Dr. Tom Long, EPA NCEA

Other Attendees (See Attachment A)

## **Opening Remarks**

Mr. Aaron Yeow, DFO, opened the meeting. He noted that as required under the Federal Advisory Committee Act (FACA) and EPA policy, the CASAC and the panel's deliberations are held in public with advanced notice given in the Federal Register,<sup>3</sup> and the meeting minutes will be made publicly available after the meeting. He noted that there was a public comment period noted on the agenda for one member of the public who registered in advance with the SAB Staff Office to make oral comments. 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 loss of impartiality for any of the Chartered CASAC or CASAC Panel members. He then turned the meeting over to Dr. Ana Diez Roux, Chair of the CASAC.

Dr. Diez Roux welcomed everyone and provided an overview of the Agenda.<sup>4</sup>

## **Public Comments on the ISA**

Julie Goodman, Gradient, presented comments<sup>5</sup> on behalf on the American Petroleum Institute. Her comments focused on several areas of the panel's consensus responses to the charge questions that she felt should receive greater attention in the letter to the Administrator.

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

### *Consensus Responses to Charge Questions*

The panel agreed to several edits to clarify the consensus response to the Chapter 2 charge questions. It was agreed to add a sentence on page 2, line 35, regarding changes in the patterns of sources as well as on page 4, line 26 regarding major copollutants associated with sources. The first sentence of the Chapter 3 consensus response will also be revised to clarify the CASAC's support for a distinct, stand-alone chapter on exposure.

For the consensus response to Chapter 5, it was noted that the CASAC's findings on cardiovascular effects from short-term SO<sub>2</sub> exposure were missing. It was agreed to add in the CASAC's non concurrence with the EPA's changing of the causal determination for cardiovascular effects from short-term SO<sub>2</sub> exposure.

### *Letter to the Administrator*

It was agreed that all the changes in the consensus response would be reflected in the Letter to the Administrator as well. The panel agreed to revise the structure of the paragraph on Chapter 2 to be consistent with the other paragraphs. An additional sentence will be added to better convey the panel's recommendation of including the location and emissions of major point sources. It was agreed to revise the paragraph on Chapter 5 to change the term "causal determination" to "determination". This will be done for the consensus response as well.

## **Disposition of the Draft CASAC Report by the Chartered CASAC Members**

The Chartered CASAC members approved the draft CASAC report with the revisions discussed on the call.

## Summary and Action Items

With business concluded, the meeting was adjourned by Mr. Yeow at 3:00 p.m.

Respectfully Submitted:

*/Signed/*

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Mr. Aaron Yeow  
Designated Federal Officer  
EPA SAB Staff Office

Certified as Accurate:

*/Signed/*

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Dr. Ana Diez Roux  
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 [April 6, 2016 CASAC Sulfur Oxides Panel Meeting page](#):

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<sup>1</sup> Chartered CASAC Roster

<sup>2</sup> CASAC Sulfur Oxides Panel Roster

<sup>3</sup> Federal Register Notice Announcing the Meeting

<sup>4</sup> Agenda

<sup>5</sup> Oral Statement from Julie Goodman, Gradient, on behalf of the American Petroleum Institute

**ATTACHMENT A – Other Attendees  
CASAC Sulfur Oxides Panel Public Meeting**

| <b>Name</b>               | <b>Affiliation</b>                                 |
|---------------------------|--|
| Buckley, Barbara          | EPA  |
| Cherry, Lori              | North Carolina Department of Environmental Quality |
| Coffman, Evan             | EPA  |
| Dutton, Steve             | EPA  |
| Goodman, Julie            | Gradient   |
| Hagan, Nicole             | EPA  |
| Hemming, Brooke           | EPA  |
| Hetes, Bob                | EPA  |
| Hines, Erin               | EPA  |
| Jansen, John              | Southern Company                                   |
| Kirrane, Ellen            | EPA  |
| Koehn, Kara               | EPA  |
| Kotchmar, Dennis          | EPA  |
| Lacey, Anthony            | Inside EPA   |
| Lackey, Leila             | EPA  |
| Langstaff, John           | EPA  |
| Langworthy, Cindy         | Hunton & Williams, LLP                             |
| Lansdell, Terry           | Clean Air Carolina                                 |
| Long, Tom                 | EPA  |
| Luben, Tom                | EPA  |
| Parker, Stuart            | IWP News   |
| Richmond-Bryant, Jennifer | EPA  |
| Sacks, Jason              | EPA  |
| Walsh, Debra              | EPA  |
| Williams, Melina          | EPA  |