

**Summary Minutes of the
U.S. Environmental Protection Agency (EPA)
Chartered Clean Air Scientific Advisory Committee (CASAC)
and CASAC Particulate Matter (PM) Panel
Public Meeting
August 9, 2016**

Date and Time: Tuesday, August 9, 2016, 1:00 PM – 4:00 PM ET

Location: Telephone and Audio Webcast

Purpose: To discuss the *07-12-16 Draft CASAC Review of the EPA's Integrated Review Plan for the National Ambient Air Quality Standards for Particulate Matter (External Review Draft – April 2016)*

Participants: Chartered CASAC (for full CASAC, see roster¹)

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

CASAC PM Panel (for full Panel, see roster²)

Dr. Ana Diez Roux, Chair
Mr. George A. Allen
Dr. John Balmes
Dr. Kevin Boyle
Dr. Judith Chow
Dr. Douglas Dockery
Mr. Henry (Dirk) Felton
Dr. Mark Frampton
Dr. H. Christopher Frey
Dr. Terry Gordon
Dr. Jack Harkema
Dr. Joel Kaufman
Dr. Patrick Kinney
Dr. Michael Kleinman
Dr. Rob McConnell
Dr. David Peden
Mr. Richard Poirot
Dr. Jeremy Sarnat
Dr. James Jay Schauer
Dr. Lianne Sheppard
Dr. Barbara Turpin
Dr. Sverre Vedal
Dr. Ronald Wyzga

Mr. Aaron Yeow, Designated Federal Office (DFO)

Other Attendees (See Attachment A)

Tuesday, August 9, 2016

Opening Remarks

Mr. Aaron Yeow, DFO, opened the meeting. He noted that pursuant to the Federal Advisory Committee Act (FACA) and EPA policy, the CASAC Panel's deliberations are held in public with advanced notice given in the Federal Register,³ and the meeting minutes will be made publicly available after the meeting. He noted that there was a public comment period on the agenda for members of the public who registered in advance with the SAB Staff Office to make oral comments. He stated that the Panel received written public comments, which were distributed to the Panel and 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 loss of impartiality for any of the Panel members. He then turned the meeting over to Dr. Ana Diez Roux, Chair of the CASAC.

Dr. Diez Roux welcomed everyone, but then her phone line was disconnected. Mr. Yeow asked Dr. Lianne Sheppard to temporarily chair the meeting until Dr. Diez Roux returned on the line. Dr. Sheppard went over the purpose of the meeting and provided an overview of the Agenda.⁴

Public Comments on the IRP

Lindsey Jones, Texas Commission on Environmental Quality (TCEQ), made an oral statement⁵ that focused on the importance of study selection and study quality. Dr. Diez Roux returned to the call and resumed chairing the meeting. John Heuss, Air Improvement Resources, Inc., presented oral comments on behalf of the Alliance for Automobile Manufacturers. He indicated that written comments⁶ were submitted and presented an overview of the written comments, which focused on large uncertainties that still exist since the last NAAQS review; major patterns in observational data not being consistent with EPA's assumptions of causality, equal toxicity, and no threshold; that the ISA should evaluate the coherence between toxicological data on PM components and the assumption that all PM_{2.5} can be treated as equally toxic; and the review should rigorously evaluate the evidence for and against PM mortality effects. Dr. Diez Roux noted that public comments were also received from the National Association of Manufacturers related to economic impacts and implementation issues. She reminded the panel that these issues were beyond the scope of the panel's review of the technical documents that will support the setting of the PM NAAQS. She indicated that the Chartered CASAC would revisit this issue later on during the teleconference.

Discussion of the Draft CASAC PM IRP Report

Discussion of Consensus Responses

The panel had some discussion about clarifying the comments on cancer effects on page 4. The panel agreed to remove lines 17-21 and to add a clarifying sentence with respect to supporting the agency's proposed approach to examine cancer as an important outcome and to encourage the agency to consider historical exposures in addition to concurrent exposures.

The panel agreed to clarify the discussion of PM components on lines 25-34 on page 4 and to add a sentence about not excluding *a priori* studies that do not include PM mass. The panel agreed to revisions to strengthen and clarify the panel's comments and recommendations regarding the EPA's description of study quality evaluation. The panel also agreed to clarify its recommendation for the agency to describe the process and criteria used for making causal determinations.

For the consensus response to the Chapter 4 charge questions, the panel agreed to merge the 3rd bullet with the 1st bullet. The panel agreed to soften the recommendation of expanding the geographic scope of the health risk assessment. The panel also agreed to refer to Dr. Sheppard's individual comments for references to recent studies using modeled PM.

For the Welfare-Related Risk and Exposure Assessment Chapter, the panel agreed to revisions clarifying their comments on visibility acceptability studies and to refer to Mr. Poirot's individual comments for additional details on alternatives to assess representativeness. The panel agreed to delete the last bullet on page 8 and to add a bullet regarding giving early consideration in the review process to the specific measurements and data processing techniques that might be used to determine compliance with alternative secondary PM standards. The panel also agreed to clarify that the chapter does not adequately describe welfare effects.

Discussion of Letter to the Administrator

The panel had a discussion about language conveying the strength of recommendations and would go back through the report to adjust the language to appropriately reflect the strength of the panel's recommendations. They agreed to keep the strong recommendation on line 12 of the second page of the letter for the agency to include a summary of natural versus anthropogenic concentrations of PM. They agreed to soften the recommendation for the agency to seek advice from the CASAC Air Monitoring and Methods Subcommittee. For the paragraph discussing the ISA, the panel agreed to revisions that clarified and prioritized the comments and recommendations. The panel agreed with revising the strength of recommendations to be consistent with the consensus responses. The panel also agreed with clarifying their recommendations on the exposure assessment and including a sentence about encouraging the agency to consider more representative exposure metrics.

Public Clarifying Comments

Although not listed on the Agenda, Mr. Yeow afforded the EPA and the public an opportunity to provide any additional clarifying comments for the Panel to consider. Debra Walsh, Deputy Director of the National Center of Environmental Assessment – Research Triangle Park, EPA, thanked the panel for their work on the review. No members of the public offered additional comments.

Disposition of the Draft CASAC PM IRP Report

The Chartered CASAC members agreed to accept and approve the report with the revisions discussed by the panel during the teleconference. The Chartered CASAC also agreed to add a paragraph (in reference to the public comment received) that economic impacts were beyond the scope of the CASAC's review of the scientific and technical documents that will support the setting or revision of the PM NAAQS. Outside of the standard setting process, they would be receptive to a request from the EPA to review documents or analyses of any adverse effects from various NAAQS implantation strategies and would form an ad hoc panel with the appropriate expertise for the review.

Summary and Action Items

Dr. Diez Roux indicated that the revised report would be sent back out to the panel members for a final look to ensure that the revisions reflect what was discussed on the teleconference before transmittal to the Administrator.

The meeting was adjourned by Mr. Yeow at 3:07 p.m.

Respectfully Submitted:

Certified as Accurate:

/Signed/

/Signed/

Mr. Aaron Yeow
Designated Federal Officer
EPA SAB Staff Office

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 [August 9, 2016 CASAC and CASAC PM Panel Meeting page](#):

¹ Chartered CASAC Roster

² CASAC PM Panel Roster

³ Federal Register Notice Announcing the Meeting

⁴ Agenda

⁵ Oral Statement from Lindsey Jones, Texas Commission on Environmental Quality

⁶ Comments from Jon Heuss and George Wolff, Air Improvement Resource, Inc., on behalf of the Alliance of Automobile Manufacturers

ATTACHMENT A – Other Attendees
CASAC PM Panel Public Teleconference and Audio Webcast

Name	Affiliation
Alman, Breanna	USEPA
Barker, Leila	Los Angeles Department of Water and Power
Beardslee, Renee	USEPA
Blase, Kurt	BlaseGroup, LLC
Bolen, Brittany	U.S. Senate Committee on Environment and Public Works
Brown, James	USEPA
Brown, Marie	South Carolina Department of Health and Environmental Control
Buckley, Barbara	USEPA
Chan, Elizabeth	USEPA
Coffman, Evan	USEPA
Deitrich, Casey	ASC Services
Downs, Tom	Maine Department of Environmental Protection
Dutton, Steve	USEPA
Fritz, Patricia	New York Department of Health
Hagan, Nicole	USEPA
Hetes, Bob	USEPA
Hines, Erin	USEPA
Jacobus, James	Minnesota Department of Health
Jansen, John	Southern Company
Jenkins, Scott	USEPA
Jones, Lindsey	Texas Commission on Environmental Quality
Jones, Samantha	USEPA
Kalisz, Cathe	American Petroleum Institute
Kirrane, Ellen	USEPA
Kotchmar, Dennis	USEPA
Lamson, Amy	USEPA
Langworthy, Cindy	Hunton & Williams LLP
Lansdell, Terry	Clean Air Carolina
Leffert, Kaitlyn	
Levine, Jesse	Rubber Manufacturers Association
Loftis, Randy Lee	Texas Climate News
Long, Michael	Cliffs Natural Resources
Long, Tom	USEPA
Luben, Tom	USEPA
Martin, Mary	
McDonald, Joseph	USEPA
McGuire, Terry	Earthjustice
Miller, Greg	USEPA
Moore, Brian	California Air Resources Board

Name	Affiliation
Moore, Tom	WESTAR-WRAP
Ollison, Will	American Petroleum Institute
Parker, Stuart	IWP News
Patel, Molini	USEPA
Pinto, Jospeh	USEPA
Reilly, Sean	Environment & Energy Publishing
Richmond-Bryant, Jennifer	USEPA
Sacks, Jason	USEPA
Sandiford, Vicki	USEPA
Sasser, Erika	USEPA
Schwartz, Chad	
Shirley, Stephanie	Texas Commission on Environmental Quality
Sigelko, Jenny	Volkswagen Group of America
Sloan, Jason	Association of Air Pollution Control Agencies
Vandenburg, John	USEPA
Walsh, Debra	USEPA
Webster, Martha	
Woods, Clint	Association of Air Pollution Control Agencies