

**Summary Minutes of the  
U.S. Environmental Protection Agency  
Clean Air Scientific Advisory Committee (CASAC)  
Public Teleconference  
December 22, 2009  
10:00 am – 12:00 pm, Eastern Time**

CASAC Members: Dr. Jonathan Samet, Chair  
Dr. Armistead (Ted) Russell  
Dr. Christopher Frey  
Dr. Joseph Brain  
Dr. Helen Suh  
Dr. Francine Laden (Carbon Monoxide Review Panel)  
Dr. Joel Kaufman (Carbon Monoxide Review Panel)  
Dr. Paul Roberts (Carbon Monoxide Review Panel)  
Dr. Michael Kleinman (Carbon Monoxide Review Panel)  
Dr. Russell Dickerson (Carbon Monoxide Review Panel)

Purpose: CASAC amended and approved draft letters on *Integrated Science Assessment for Carbon Monoxide (ISA, Second External Review Draft)* and the *Risk and Exposure Assessment to Support the Review of the Carbon Monoxide Primary NAAQS (REA, First External Review Draft)*

Designated Federal Officer: Dr. Holly Stallworth, Designated Federal Officer

Other EPA Staff: Barbara Buckley, Allen Davis, Doug Johns, Tom Long, Tom Luben, Beth Owens, Jason Sacks, John Vandenberg, Debra Walsh

Public: Steve Gouze, California Air Resources Board

Meeting Summary

The discussion followed the issues and general timing as presented in the meeting agenda. The agenda, Federal Register Notice and draft CASAC letters may be found posted on the CASAC website at <http://yosemite.epa.gov/sab/sabproduct.nsf/bf498bd32a1c7fdf85257242006dd6cb/d88cbf-aa26cc6433852576340063fc0e!OpenDocument&Date=2009-12-22>.

**TUESDAY, DECEMBER 22, 2008**

Opening of Public Meeting

Dr. Stallworth convened the meeting and explained that CASAC operates under the Federal Advisory Committee Act. Dr. Samet reviewed the agenda. Dr. Joe Brain, Chair

of the Carbon Monoxide Review Panel, thanked everyone for their work on the letters. Dr. John Vandenberg of EPA's National Center for Environmental Assessment (NCEA) also thanked the panel for their suggestions on how to improve the *Integrated Science Assessment* (ISA).

In reference to CASAC's draft letter on the ISA, Dr. Vandenberg requested a couple of clarifications, specifically what the panel meant by "transient" and whether the panel was referring to long-run or short-run effects in the draft letter. Dr. Samet emphasized the need to match CASAC's language in the letters to the nomenclature used in the review documents. Panelists discussed the need to standardize the definitions of "vulnerability," "susceptibility" and "sensitive" whereupon EPA representatives pointed them to the final ISA just published for particulate matter (PM). In the final PM ISA, EPA had, in fact, chosen to use the term "susceptibility" to refer to populations that have a greater likelihood of experiencing health effects related to exposure to an air pollutant. It was decided that CASAC's letter could reference this publication in referring to an approach to the inconsistencies across documents.

In discussing CASAC's draft letter on the *Risk and Exposure Assessment* (REA), CASAC members discussed the lack of adequate monitoring data for exposure assessment, while one member requested that the letter should clearly state that EPA could have done more with existing data and modeling tools. Due to the lack of scientific evidence, members agreed to strike reference to children as well as people exposed to second-hand smoke when listing at-risk groups in the letter. In discussing linkages between the ISA and REA, a representative from EPA said that the selection of assessment endpoints for the risk and exposure assessment did not depend solely on strength of inferences about causality drawn from the ISA. Rather, EPA considers a combination of factors, including the availability of baseline incidence data. CASAC members agreed that the letter should stress the need to be transparent about linkages between the ISA and the REA. It was also decided that the letter should state that EPA should develop the capacity to use monitoring data once it is available.

Dr. Brain and Ms. Kyndall Barry, Designated Federal Officer for the Carbon Monoxide Review Panel, said they would revise the letters in accordance with the discussion in the teleconference and get a final letter to Dr. Samet. Ms. Barry requested final individual comments by January 5, 2010.

On Behalf of the Committee,  
Respectfully Submitted,

Holly Stallworth, Ph.D. /s/  
Designated Federal Officer

Certified as True:

Jonathan Samet, M.D. /s/

Chair, Clean Air Scientific Advisory Committee  
Sulfur Oxides Primary NAAQS Review Panel

**NOTE AND DISCLAIMER:** The minutes of this public meeting reflect diverse ideas and suggestions offered by committee members during the course of deliberations within the meeting. Such ideas, suggestions, and deliberations do not necessarily reflect definitive consensus advice from the panel members. The reader is cautioned to not rely on the minutes 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.