

**Summary Minutes of the
U.S. Environmental Protection Agency
Clean Air Scientific Advisory Committee (CASAC)
Public Teleconference
March 26, 2010
10:00 am – 12:00 pm, Eastern Time**

CASAC Members: Dr. Jon Samet, Chair
Dr. Ted Russell
Dr. Christopher Frey
Dr. Joe Brain
Dr. Donna Kenski
Dr. Helen Suh (not present)
Dr. Kathleen Weathers (not present)

Ambient Air Methods
and Monitoring
Subcommittee:

Dr. Judy Chow
Dr. George Allen

Purpose: To review and approve a draft letter on the EPA White Paper on PM Light Extinction Measurements from the Ambient Air Methods and Monitoring Subcommittee (AAMMS).

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

Other EPA Staff: Lewis Weinstock, Vicki Sandiford, Mark Pitchford (on detail from NOAA), Jim Hanley

Public: Lisa Herschberger (Minnesota Pollution Control Agency); Laura Swingle (Jackson Kelly Law Firm); Tony Hanson (Magee Scientific); and Tom Moore (Western Governors Association)

Meeting Materials and Meeting Webpage: The agenda, the Federal Register Notice and the draft CASAC letter may be found posted on the meeting webpage:

<http://yosemite.epa.gov/sab/sabproduct.nsf/bf498bd32a1c7fdf85257242006dd6cb/72b081422dc87002852576a900517480!OpenDocument&Date=2010-03-26>

Meeting Summary

The discussion followed the plan presented in the meeting agenda.

FRIDAY, MARCH 26, 2010

Dr. Stallworth convened the meeting and explained that CASAC operates under the Federal Advisory Committee Act. Mr. Lewis Weinstock of EPA's Office of Air Quality Planning and Standards (OAQPS) thanked the Ambient Air Methods and Monitoring Subcommittee for its work. Dr. Samet asked Dr. Russell, a CASAC member and Chair of AAMMS, to walk participants through the draft report on the EPA White Paper on monitoring options that could be used to implement a secondary standard to protect against visibility effects. According to Dr. Russell, the White Paper focused primarily on using a nephelometer to measure the scattering portion of total light extinction due to particulate matter and a filter transmission-based instrument for the absorption portion. AAMMS agreed with EPA that the choice of a nephelometer and a filter transmission-based instrument was logical in the short-term, but the AAMMS wished to call attention to promising approaches, such as the Cavity-based instruments, that may soon become available. In the interim, the AAMMS thought the use of PM_{2.5} continuous monitors could be a bridge method before the dissemination of light extinction instruments throughout the network. Dr. Russell briefly touched on the AAMMS' major points in response to EPA's charge questions. Specifically, Dr. Russell said AAMMS concluded that the use of 550 nanometers in measuring light extinction was too restrictive; that PM_{2.5} was the appropriate size fraction to capture light scattering; that significant measurement errors can occur when relative humidity exceeds 90%; and that "Cavity" technologies, e.g. the Cavity Attenuation Phase Shift method, offer promising alternatives to measuring light extinction but are not yet commercially available.

In response to a question from a CASAC member, Dr. Russell noted that the draft report acknowledges the practical advantages of using PM_{2.5} Class III FEM hourly data from the existing national network as an indirect alternative visibility metric. Dr. Russell described the AAMMS' preference for the technology-forcing advantages of a performance standard as compared to specifying a calibration procedure or a particular instrument model. One member of the AAMMS noted the importance of distinguishing between technologies that are readily available and those technologies that hold promise but are not yet available.

With respect to monitor locations, Dr. Russell said the AAMMS thought it would be possible to have just one monitor per city given the homogeneous distribution of small particles, but it is always preferable to have more monitors. Furthermore, collocating monitors with PM mass, speciation and precursor gas measurements would be particularly valuable.

Dr. Samet and other CASAC members on the call approved the draft letter.

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.