

**U.S. Environmental Protection Agency
Clean Air Scientific Advisory Committee (CASAC)
CASAC Particulate Matter (PM) Review Panel**

**Summary Meeting Minutes of the CASAC PM Review Panel
Public Advisory Teleconference**

Wednesday, May 18, 2005 – 1:00 to 4:00 p.m. Eastern Time

EPA Science Advisory Board (SAB) Staff Office, Washington DC

**CASAC Particulate Matter (PM) Review Panel Teleconference to
Review the CASAC's Letter/Report from the PM Panel's April 6–7, 2005 Meet-
ing re: EPA's 2nd Draft PM Staff Paper and 2nd Draft PM Risk Assessment**

Panel Members: See CASAC PM Review Panel Roster – Appendix A

Agenda: See Meeting Agenda – Appendix B

Purpose: The purpose of this public teleconference meeting was for the CASAC Particulate Matter (PM) Review Panel to publicly review and approve the CASAC's draft letter/report to the EPA Administrator concerning the PM Panel's April 6–7, 2005 peer review of EPA's 2nd Draft PM Staff Paper and 2nd Draft PM Risk Assessment.

Attendees: Chair: Dr. Rogene Henderson

CASAC Members: Dr. Ellis Cowling
Dr. James Crapo
Dr. Frederick Miller
Mr. Richard Poirot
Dr. Frank Speizer
Dr. Barbara Zielinska

Panel Members: Dr. Jane Koenig
Dr. Allan Legge
Dr. Paul Liroy
Dr. Morton Lippmann
Dr. Joe Mauderly
Dr. Roger McClellan
Dr. Gunter Oberdorster
Dr. Sverre Vedal
Mr. Ronald White
Dr. George Wolff

EPA SAB Staff: Mr. Fred Butterfield, CASAC Designated Federal Officer (DFO)

Other EPA Staff: John Bachmann, OAR, OAQPS
 John Hannon, OGC, ARLO
 John Langstaff, OAR, OAQPS
 Karen Martin, OAR, OAQPS
 Harvey Richmond, OAR, OAQPS
 Mary Ross, OAR, OAQPS
 Vicki Sandiford, OAR, OAQPS
 Steve Silverman, OGC, SWERLO
 Lydia Wegman, OAR, OAQPS

Meeting Summary

The discussion followed the issues and general timing as presented in the meeting agenda (Appendix B).

Convene Meeting, Call Attendance, Introduction and Administration

Mr. Fred Butterfield, Designated Federal Officer (DFO) for the CASAC, opened the meeting and the teleconference line, called attendance, and welcomed all attendees. He noted that the CASAC is a Federal advisory committee chartered under the Federal Advisory Committee Act (FACA) to provide advice and recommendations to the EPA Administrator. Consistent with FACA regulations, its deliberations are held as public meetings and teleconferences for which advance notice is given in the *Federal Register*. The DFO is present at all such meetings to assure compliance with FACA requirements. He mentioned that there were four (4) individuals who had signed-up in advance to provide an oral public statement today. Mr. Butterfield said a transcript of this teleconference is not being taken; however, summary minutes were taken (by the DFO) for this teleconference meeting. The minutes will be certified by the CASAC (and PM Review Panel) Chair and made available on the SAB Web site (<http://www.epa.gov/sab>). All Panelists have earlier submitted documentation with respect to possible financial conflicts-of-interest, which was reviewed by a SAB staff member prior to the meeting and found to be satisfactory.

Purpose of Meeting and Welcome

Dr. Rogene Henderson, CASAC and PM Review Panel Chair, welcomed Panel members and briefly stated the purpose of the meeting (see above).

Public Comment Period

Mr. Butterfield, CASAC DFO, facilitated the formal public comment period. (See Appendix C for a summary listing of all public speakers; copies of public commenters' oral statements are located in the FACA file for this meeting.) PM Panel members were permitted to ask follow-up questions after each public speaker had finished delivering his or her oral public statement.

Summary of the CASAC PM Review Panel's Discussion Concerning its Review and Approval of the CASAC's Draft Letter/Report to the Administrator Concerning the PM Panel's Peer review of EPA's 2nd Draft PM Staff Paper and 2nd Draft PM Risk Assessment

Major points from PM Panel members' deliberations concerning its review of the CASAC's draft letter/report from its peer review of these two Agency documents include the following:

- PM Panel members raised and discussed some issues with respect to the content of the draft letter, for example:
 - The fact that the Agency does not have a systematic database on the toxicology of "rural dust" (*i.e.*, coarse particulates) in general, although there is robust data on certain, specific type of crustal materials;
 - The lack of a formal, probabilistic risk assessment that incorporates the full range of uncertainties in the risk estimates;
 - Concerns among some members of the Panel with regard to the policy-relevant background (PRB) estimates, noting that the "true background" is not observable and is effectively unknowable; and
 - Whether the 98th or 99th percentile form of the 24-hour NAAQS should be selected, with most Panel members favoring continued use of the 98th percentile form because it is more robust than the 99th percentile form and would provide more stability to prevent areas from "bouncing in and out of attainment" from year to year.
- However, most of the discussion concerning the draft letter centered on a short-term primary coarse (PM_{10-2.5}) standard, given that the evidence for a NAAQS for coarse-mode PM is much weaker than for fine-mode particles (PM_{2.5}). The Panel agreed that a PM_{10-2.5} daily standard might be warranted, particularly in urban areas, albeit with appropriate caveats to make exceptions for those types of rural dusts known to have low toxicity.
- In light of these discussions, Dr. Karen Martin of OAQPS solicited the advice and recommendations from the PM Panel on the following two options:
 - Option A: The PM Panel will provide its advice and recommendations on the 2nd Draft PM Staff Paper and PM Risk Assessment in the form of a letter/report to the Administrator, and OAQPS will then issue the Agency's Final PM Staff Paper and PM Risk Assessment by June 30, 2005, the deadline in the consent decree; or
 - Option B: The PM Panel will provide its advice and recommendations on the 2nd Draft PM Staff Paper and Risk Assessment in the form of a letter/report to the Administrator. EPA will then publish a Final PM Staff Paper and PM Risk Assessment that addresses every element of the proposed PM NAAQS *except* for the primary PM_{10-2.5} standard by the end of June. OAQPS will then publish a *new, draft* section of the PM Staff Paper covering a primary coarse standard for the PM Panel's review as soon as practicable.
- After a lengthy discussion with respect to a short-term PM_{10-2.5} standard, a consensus seemed to be building that the Panel will be able to recommend a short-term PM coarse "urban" standard only. Furthermore, the Panel recommended Option A above, with the

significant caveat that, subsequent to the publication of the Final PM Staff Paper and PM Risk Assessment on June 30, the CASAC PM Review Panel will need to meet again this summer (probably in late July or August) via a public teleconference to review what the final Staff Paper has to say concerning the setting of a coarse PM standard. Only then will the Panel be able to provide the Agency with its final advice and recommendations concerning the adequacy of a short-term PM_{10-2.5} NAAQS. Subsequent to such a teleconference meeting of the PM Panel, the CASAC will send the Administrator a separate letter concerning the Panel's recommendations concerning PM_{10-2.5} as an indicator variable, along with its views on the averaging time, statistical form, and level of any potential daily PM_{10-2.5} standard.

Summary and Next Steps

Dr. Henderson thanked the members of the PM Panel for their participation in today's teleconference. In addition, she requested that Panel members provide their specific, additional comments (*i.e.*, updated language) on the draft letter to her (with a copy to the DFO) by no later than next Monday, May 23. The DFO will circulate the "final draft" of the PM Panel's letter/report for approval (concurrence) via e-mail, with any substantive member interactions to occur within the designated sub-groups. Once all Panel members have concurred on this letter/report, it will be transmitted to the Administrator — prospectively, by the end of May or the first several days of June.

The Agency (OAQPS) will publish the Final PM Staff Paper and PM Risk Assessment no later than June 30, 2008. Upon release, OAQPS will send copies of these documents on CD-ROMs to the DFO, upon which the SAB Staff Office will send them to the PM Panel via FedEx (overnight) mailing. As noted above, the PM Panel committed to review the Final PM Staff Paper and then hold a follow-on teleconference meeting (most likely in late July or August) — following which the CASAC will send a letter to the EPA Administrator offering the PM Panel's additional comments (even if they are strictly favorable) and any advice and recommendations on at least the chapters covering the short-term PM_{10-2.5} standard.

Additionally, as the Panel requested, the charge questions to the Panel for this review of the 2nd Draft PM Staff Paper and Risk Assessment will be removed from the body of the letter/report and placed in an appendix (as the renamed Appendix B). Finally, any PM Panelists who wish to provide updates or supplements to their individual review comments for inclusion in (the new) Appendix C of the letter/report are requested to send these to Dr. Henderson and the DFO by the end of next week (that is, by close of business on Friday, May 27). The proposed final draft letter/report that the DFO will send via e-mail to all members of the PM Panel that following week next will not have Appendix C attached (for file size considerations only), but will nevertheless reflect the changes/additions to this appendix as requested by several Panelists. Once concurrence on the final draft letter/report has been received from all PM Panel members and the final letter/report is ready to be transmitted to the Administrator, the DFO will send a copy to the entire Panel which will include all appendices.

The DFO adjourned the meeting at approximately 3:55 p.m. on May 18, 2005.

Respectfully Submitted:

Certified as True:

/s/

/s/

Fred A. Butterfield, III

Rogene F. Henderson, Ph.D.

Fred A. Butterfield, III
CASAC DFO

Rogene F. Henderson, Ph.D.
CASAC Chair

Appendix A – Roster of the CASAC Lead Review Panel

**U.S. Environmental Protection Agency
EPA Science Advisory Board (SAB) Staff Office
Clean Air Scientific Advisory Committee (CASAC)
CASAC Particulate Matter (PM) Review Panel***

CHAIR

Dr. Rogene Henderson, Scientist Emeritus, Lovelace Respiratory Research Institute, Albuquerque, NM

MEMBERS

Dr. Ellis Cowling*, University Distinguished Professor-at-Large, North Carolina State University, Colleges of Natural Resources and Agriculture and Life Sciences, North Carolina State University, Raleigh, NC

Dr. James D. Crapo*, Professor, Department of Medicine, Biomedical Research and Patient Care, National Jewish Medical and Research Center, Denver, CO

Dr. Philip Hopke**, (Immediate Past CASAC Chair), Bayard D. Clarkson Distinguished Professor, Department of Chemical Engineering, Clarkson University, Potsdam, NY

Dr. Jane Q. Koenig, Professor, Department of Environmental Health, School of Public Health and Community Medicine, University of Washington, Seattle, WA

Dr. Petros Koutrakis, Professor of Environmental Science, Environmental Health, School of Public Health, Harvard University (HSPH), Boston, MA

Dr. Allan Legge, President, Biosphere Solutions, Calgary, Alberta

Dr. Paul J. Lioy, Associate Director and Professor, Environmental and Occupational Health Sciences Institute, UMDNJ - Robert Wood Johnson Medical School, NJ

Dr. Morton Lippmann, Professor, Nelson Institute of Environmental Medicine, New York University School of Medicine, Tuxedo, NY

Dr. Joe Mauderly, Vice President, Senior Scientist, and Director, National Environmental Respiratory Center, Lovelace Respiratory Research Institute, Albuquerque, NM

Dr. Roger O. McClellan, Consultant, Albuquerque, NM

Dr. Frederick J. Miller*, Consultant, Cary, NC

Dr. Günter Oberdörster, Professor of Toxicology, Department of Environmental Medicine, School of Medicine and Dentistry,

Mr. Richard L. Poirot*, Environmental Analyst, Air Pollution Control Division, Department of Environmental Conservation, Vermont Agency of Natural Resources, Waterbury, VT

Dr. Robert D. Rowe, President, Stratus Consulting, Inc., Boulder, CO

Dr. Jonathan M. Samet, Professor and Chair, Department of Epidemiology, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

Dr. Frank Speizer*, Edward Kass Professor of Medicine, Channing Laboratory, Harvard Medical School, Boston, MA

Dr. Sverre Vedal, Professor of Medicine, National Jewish Medical and Research Center, Denver, CO

Mr. Ronald H. White, Research Scientist, Epidemiology, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

Dr. Warren H. White, Visiting Professor, Crocker Nuclear Laboratory, University of California - Davis, Davis, CA

Dr. George T. Wolff, Principal Scientist, General Motors Corporation, Detroit, MI

Dr. Barbara Zielinska*, Research Professor, Division of Atmospheric Science, Desert Research Institute, Reno, NV

SCIENCE ADVISORY BOARD STAFF

Mr. Fred Butterfield, CASAC Designated Federal Officer, 1200 Pennsylvania Avenue, N.W., Washington, DC, 20460, Phone: 202-343-9994, Fax: 202-233-0643 (butterfield.fred@epa.gov) [Physical/Courier/FedEx Address: Fred A. Butterfield, III, EPA Science Advisory Board Staff Office (Mail Code 1400F), Woodies Building, 1025 F Street, N.W., Room 3604, Washington, DC 20004, Telephone: 202-343-9994]

* Members of the statutory Clean Air Scientific Advisory Committee (CASAC) appointed by the EPA Administrator

** Immediate past CASAC Chair

Appendix B – Meeting Agenda

**U.S. Environmental Protection Agency
Clean Air Scientific Advisory Committee (CASAC)**

**Public Teleconference
Wednesday, May 18, 2005 – 1:00 to 4:00 p.m. Eastern Time**

**EPA Science Advisory Board (SAB) Staff Office
1025 F. Street, N.W., Washington, DC 20004**

**CASAC Particulate Matter (PM) Review Panel Teleconference to
Review the Panel’s Letter/Report from its April 6–7, 2005 Meeting re:
EPA’s 2nd Draft PM Staff Paper and 2nd Draft PM Risk Assessment**

Final Meeting Agenda

Wednesday, May 18, 2005

1:00 p.m.	Convene Teleconference; Call Attendance; Introductions and Administration	Mr. Fred Butterfield, CASAC DFO
1:10 p.m.	Purpose of Meeting; Summary Presentation of CASAC PM Review Panel’s Draft Report	Dr. Rogene Henderson, Chair
1:20 p.m.	Public Comment Period	Mr. Butterfield (Facilitator)
1:50 p.m.	Members’ Discussion and Deliberation	CASAC Members
3:45 p.m.	Summary	Dr. Henderson
3:50 p.m.	Next Steps re: EPA’s PM Staff Paper	Dr. Karen Martin, EPA’s Office of Air Quality Planning and Standards (OAQPS)
4:00 p.m.	Adjourn Meeting	Mr. Butterfield

Appendix C –List of Public Speakers

List of Public Speakers

U.S. Environmental Protection Agency
Clean Air Scientific Advisory Committee (CASAC)
CASAC Particulate Matter (PM) Review Panel

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Public Teleconference Meeting ❖ May 18, 2005

**EPA Science Advisory Board (SAB) Staff Office
1025 F. Street, N.W., Washington, DC 20004**

#	Speaker’s Name	Organizational Affiliation(s)	Organization(s) Represented (i.e., comments offered on behalf of)
1	Ms. Deborah Shprentz	Consultant	American Lung Association (ALA)
2	Ms. Denise Kennedy	Holland & Hart LLP	National Cattlemen’s Beef Association (NCBA)
3	Ms. Yewlin Chee	Environmental Defense	same
4	Mr. Philip Johnson	Northeast States for Coordinated Air Use Management (NESCAUM)	same