

Summary Minutes of the
Clean Air Scientific Advisory Committee (CASAC)
Particulate Matter (PM) Review Panel
Public Teleconference
August 25, 2010

Committee Members: Dr. Jonathan Samet, Chair
Dr. Lowell Ashbaugh
Professor Ed Avol
Dr. Joseph Brain
Dr. Wayne Cascio
Dr. Christopher Frey
Dr. Joseph Helble
Dr. Helen Suh
Dr. William Malm
Mr. Tom Moore
Mr. Richard Poirot
Dr. Kent Pinkerton
Dr. Ted Russell
Dr. Frank Speizer
Dr. Sverre Vedal
Dr. Kathleen Weathers
Dr. Robert Phalen

Date and Time: August 25, 2010: 10:00 am – 1:00 pm

Purpose: The Clean Air Scientific Committee Review Panel (CASAC) reviewed its draft letter on the *Policy Assessment for the Review of the PM NAAQS – First External Review Draft (June 2010)*.

SAB Staff: Dr. Holly Stallworth, Designated Federal Officer

Other EPA Staff: Steve Silverman, Lydia Wegman, Karen Martin, Beth Hassett-Sipple, Scott Jenkins, Pradeep Rajan, Zach Pekar, Marc Pitchford (NOAA), Lillian Bradley, Beth Palma, Phil Lorang, Tim Hanley, Mia South, Steve Dutton, Mary Ross, Jason Sacks, Tom Long, Ellen Kirrane, Lindsay Stanek, Meredith Lassiter, Mark Corrales, Tom Gillis, Margaret Zawacki, Greg Miller

Public: Linda Wilson, New York Attorney General's Office
Scott Watson, Import Plywood Marketing Group
Dan Neville, UTCA of NJ
Matt Steigmeir, Etho Corp
Ashley Lion, National Cattleman's Beef

Hank Carbonel, Concrete Pumpers
Julie Goodman, Gradient
Emily Haug, Sen. Roberts' Office
Nick Goldstein, Am. Road and Trans.
Trevor Beggioro, AZ DEQ
Bill Davis, S. California Contractors Association
Brian Bloom, Priority Moving
Rod Michaelson, Bay Cities Paving and Grading
Dave Pinehold, AECOM
Ken Barbick, Western Growers
Maria Zufall, Georgia Pacific
Dave Puglia, Western Growers
Michael Lewis, Construction Industry Air Quality
Paul Moore, California Company
Betty Plowman, California Dumptruck Owners
James Enstrom, UCLA
Lee Brown, California Dump Truck Owners Association
Doug Austin, Institute of Clean Air Companies
Brian Baldwin, Southern Company
Sean Edgar, Clean Fleets Coalition
John Dunn, Delta Construction

URL: The meeting agenda, public comments, and draft letter may be found posted at the meeting website:

<http://yosemite.epa.gov/sab/sabproduct.nsf/bf498bd32a1c7fdf85257242006dd6cb/27f081dc1e647d888525776f0046327e!OpenDocument&Date=2010-08-25>

Meeting Summary

The discussion followed the issues and general timing as presented in the meeting agenda posted at the URL above.

Wednesday, August 25, 2010

Dr. Holly Stallworth, Designated Federal Officer (DFO), opened the meeting with a statement that the CASAC Particulate Matter Review Panel is a federal advisory committee whose meetings and deliberations meet the requirements of the Federal Advisory Committee Act. Dr. Samet reviewed the agenda and purpose of the meeting. Dr. Karen Martin of EPA's Office of Air Quality Planning and Standards (OAQPS) told the panel that OAQPS will complete their work on the PM_{2.5} speciated mass light extinction indicator, taking into account CASAC's and public comments, by the end of September but that they would not be seeking additional CASAC input on another draft of the chapter pertaining to welfare indicators. Dr. Martin pointed out a possible misunderstanding among some public commenters who may have overlooked EPA's

consideration of changing to the 98th percentile form for the PM₁₀ standard. By overlooking this change, some commenters appeared to think that EPA was drastically cutting the PM₁₀ standard. Dr. Martin reminded the participants that, although EPA was considering replacing the current “one exceedance” PM₁₀ standard of 150 µg/m³ with a 65 – 85 µg/m³ standard, the latter was only being considered in conjunction with the 98th percentile form. Lastly, Dr. Martin requested clarification on a paragraph in the Panel’s draft letter on confidence bounds on concentration-response functions (charge question 3.a.i).

During the public comment period, 14 people presented comments. Mr. Lee Brown of the California Dump Truck Owners Association spoke about the effects that environmental policies were having on the state economically while questioning the science relating particulate matter to health effects. Mr. William Davis of the Southern California Contractors Association suggested that relative risks <2 in the studies of health effects of particulate matter were insufficient while posing a high regulatory burden on the construction industry. Nick Goldstein of the American Road and Transportation Builders Association voiced opposition to any tightening of the PM standards based on the progress already being made in reducing air pollution in the U.S. Mr. Goldstein was concerned that tighter standards would cause states and localities to lose highway grant funds from the federal government. Mr. Scott Watson of the Import Plywood Marketing Group offered comments that were critical of the California Air Resources Board. Mr. Rod Michaelson of Bay Cities Paving and Grading voiced doubts about the science on particulate matter effects and warned against the potential unemployment that could result from tighter standards. Mr. Kurt Blase of the Coarse PM Coalition described a new analysis showing the effects of a PM₁₀ standard in the range of 65 – 85 µg/m³ at the 98th percentile form that indicates a standard of 85 µg/m³ would be significantly more stringent in the west and midwest. Mr. Sean Edgar of the Clean Fleets Coalition urged the committee to review comments by Dr. Robert Phalen and Dr. James Enstrom. Mr. Michael Lewis of the Construction Industry Air Quality Coalition pointed out that the PM Panel had acknowledged scientific uncertainty associated with the effects of PM. Mr. John Dunn on behalf of Delta Construction said EPA should be showing a relative risk of 2 or more before rulemaking. Ms. Betty Plowman of the California Dumptruck Owners Association pointed out that some California counties with the best air quality have the most health problems. Ms. Plowman emphasized tailpipe testing as a way of controlling mobile source emissions. Mr. Bob Engel, of Engel & Gray, emphasized secondary public health effects and questioned why the Policy Assessment excluded some of the health effects studies. On this point, Dr. Samet reminded listeners that the Integrated Science Assessment included all studies while subsequent assessment documents included subsets of the studies since EPA culled the literature to emphasize those studies that were most relevant. Dr. Julie Goodman, on behalf of the American Petroleum Institute, criticized EPA’s use of the Cox Proportional Hazard (PH) model, emphasizing some of the underlying assumptions that are not met. Dr. Goodman criticized EPA’s use of the traditional Cox PH model inasmuch as two assumptions were not met. Dr. Goodman said the following two assumptions were not met: that the effects of exposure and other covariates are constant over the study period and that exposure and other covariates contribute linearly to the natural log of the hazard ratio. Dr. Goodman

said that it is more likely that effects vary over time. She also pointed out that BMI, for example, can confound the association of PM_{2.5} and mortality and contribute nonlinearity to the hazard ratio. Mr. Joel Sherman of Grimmway Enterprises was skeptical of the health effects of PM while emphasizing the effects of regulation on employment, poverty and health.

Following public comments, Dr. Samet called the Panel's attention to two major issues in the draft letter that he thought merited some discussion: EPA's choice of paired 24-hour and annual standards for PM_{2.5} under consideration and EPA's range for the Candidate Protection Levels (191 to 64 Mm⁻¹) for the visibility standard. Panelists agreed with the draft letter's language that questioned why the 24-hour standard of 30 µg/m³ was considered only in conjunction with an annual standard of 11 µg/m³. In addition, panelists expressed a desire to acknowledge the increasing uncertainty about health effects at lower levels of PM_{2.5} while also emphasizing the lack of evidence for a threshold. One member asked that the Panel consider the indirect health effects associated with PM (i.e. the downstream economic consequences of regulations that could have health impacts); however, others disagreed that the topic of economic impacts fell within CASAC's statutory domain.

On the subject of EPA's thoracic coarse standard, the Panel decided to insert language acknowledging the geographic differences in levels of stringency associated with any thoracic coarse PM standard.

On the Candidate Protection Levels under consideration for the visibility standard, panelists debated whether to make a recommendation for a narrower range (narrower than (191 to 64 Mm⁻¹) but generally decided against it. Instead the Panel decided that the 20 to 30 deciview range of levels chosen by EPA staff as "Candidate Protection Levels" was adequately supported by the evidence presented.

Before adjourning the Panel, Dr. Stallworth pledged to make revisions to the draft letter and circulate it for final approval.

Respectfully Submitted:

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

Certified as True:

Jonathan Samet, M.D., M.S. /s/
Chair

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by Committee member 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.