

**Summary Minutes of the
U.S. Environmental Protection Agency
Clean Air Scientific Advisory Committee (CASAC) Ozone Review Panel for the
Reconsideration of the 2008 NAAQS
Public Teleconference
February 18, 2011
1:00pm – 5:00pm**

CASAC Panelists:

Dr. Jonathan Samet, Chair
Dr. Kathy Weathers
Dr. Chris Frey
Mr. George Allen
Dr. Helen Suh
Dr. Joe Brain
Dr. Charlie Plopper
Dr. Fred Miller
Dr. Jack Harkema
Dr. Phil Hopke
Dr. Rogene Henderson
Dr. John Balmes
Dr. Lianne Sheppard
Dr. Sverre Vedal
Dr. Morton Lippmann
Dr. James Gauderman
Dr. James Ultman
Dr. Michael Kleinman
Dr. Maria Morandi
Dr. Barbara Zielinska
Dr. Allen Legge

Purpose: To discuss EPA's charge questions on the ozone reconsideration, posted at:
<http://yosemite.epa.gov/sab/sabproduct.nsf/bf498bd32a1c7fdf85257242006dd6cb/f03c304ff74d0e798525781d006ca14b!OpenDocument&Date=2011-02-18>.

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

Other EPA Staff:

Bertrand, Charlotte
Brown, James
Buckley, Barbara
Martin, Karen
Scheffe, Rich
Stanek, Lindsay
Stone, Susan

Vandenberg, John
Vinikoor-Imler, Lisa
Wegman, Lydia
Zachek, Christine

Public:

Alifz, Kathy (affiliation unknown)
Alvarado, Alvaro (California Air Resources Board)
Ashford, Leon (Oklahoma DEQ)
Aucoin, Vivian (Louisiana Department of Environmental Quality)
Austin, Doug (Inst. Of Clean Air Companies)
Baldwin, Bryan (Southern Company)
Bennett, Charlie (Marathon Petroleum Company)
Benstrom, Dave (affiliation unknown)
Bluett, Doug (Air Quality Resources)
Brown, Skip (Delta Construction Co.)
Buevas, Rod, (Mississippi)
Caudill, Anya (Washington Department of Ecology)
Childers, Andrew (Bureau of National Affairs)
Childers, Andrew (Bureau of National Affairs, Daily Environment Report)
Cook, Gail (New Mexico Air Quality Bureau)
Copley, Bruce (on behalf of ExxonMobil Biomedical Sciences)
Cormier, Denise (Maine Department of Environmental Protection)
Deason, Doug (ExxonMobil Refining & Supply Company)
Downey, Nicole (British Petroleum)
Downs, Tom (Maine Department of Environment Protection)
Emery, Chris (Environ)
Enstrom, James, University of California, Los Angeles
Feldman, American Petroleum Institute
Gates, Dan (City of Albuquerque)
Gephart, Larry (ExxonMobil Biomedical Sciences)
Goldstein, Nick (American Road and Transportation Builders Association)
Goodman, Julie (Gradient)
Hendler, Alan (Sponsored by the American Petroleum Institute)
Heuss, Jon (Air Improvement Resource on behalf of the Alliance of Auto Manufacturers)
Hinedorf, Maryanne (Michigan)
Honeycutt, Michael Texas Commission on Environmental Quality
Hopkins, Ed (Sierra Club)
Hornback, Jon (Metro4/SESARM, Atlanta)
Kagan, George (Shell)
Kapachik, Bernie (affiliation unknown)
Keski, Don (Detroit Diesel Corp)
Knolton, Kim (on behalf of American Public Health Association)
Lefohn, Allen S. (A.S.L. & Associates)
Lieneman, Ken (City of Albuquerque)
McClellan, Roger (Toxicologist, no affiliation)

Moustakas, Nicholas (Health Effects Institute)
Nelson, Gabe (Environment & Energy Publishing)
Nelson, Gabriel (Environment & Energy Publishing)
Nicolich, Marc (Sponsored by the American Petroleum Institute)
Ollison, Will (American Petroleum Institute)
Parker, Stuart (Inside Washington Publishers)
Parker, Stuart (Inside Washington Publishers)
Patterson, Jeffrey (University of Wisconsin School of Medicine and Public Health)
Pruett, Robyn (Gradient)
Rabideau, Chris (Chevron)
Rao, Maya (Mississippi)
Rayburn, Jack (Trust for America's Health)
Richmond, Harvey (Abt Associates)
Rohr, Annette (Electric Power Research Institute)
Rom, William (American Thoracic Society)
Schneider, Doug (Washington State Department of Ecology)
Selnick, Carl (San Diego County Air Pollution Control District)
Sessions, Stuart (on behalf of the American Petroleum Institute)
Shprentz, Deborah (Consultant to American Lung Association)
Sisnowski, Dave (affiliation unknown)
Steichen, Ted (American Petroleum Institute)
Suchecky, Joseph (Engine Manufacturers Association)
Sweigert, Gail (California Air Resources Board)
Turin, Jay (Sponsored by American Petroleum Institute)
Webster, Martha (Maine Department of Environmental Protection)
Wilson, Linda (New York Attorney General's Office)
Wolff, George (Air Improvement Resource)
Wood, Dana (on behalf of British Petroleum)
Young, Stanley (American Association for the Advancement of Science)

Meeting Materials and Meeting Webpage:

The materials listed below may be found on the meeting webpage at:

<http://yosemite.epa.gov/sab/sabproduct.nsf/bf498bd32a1c7fdf85257242006dd6cb/f03c304ff74d0e798525781d006ca14b!OpenDocument&Date=2011-02-18>

- Agenda
- Federal Register Notice
- Charge Questions
- Public Comments
- Individual Panelists' Preliminary Comments

Meeting Summary

The discussion followed the plan presented in the meeting agenda.

FRIDAY, FEBRUARY 18, 2011

Dr. Stallworth convened the meeting and explained that CASAC operates under the Federal Advisory Committee Act. Ms. Lydia Wegman of EPA's Office of Air Quality Planning and Standards thanked the Panel for agreeing to provide advice to the Administrator and stressed that the Administrator will only be considering information available in the last Ozone (O₃) NAAQS review that concluded in 2008.

The public comment period included a total of 31 public speakers. Page 2 of the agenda lists 34 public speakers; however, the speakers listed as #24, #26 and #31 did not speak.

Deborah Shprentz, consultant to the American Lung Association, stressed the strength of the evidence on O₃ and called for a primary standard of 60 ppb. Roger McClellan, speaking for himself, cited *Whitman v. American Trucking Associations* (531 U.S. 457, 495, 2001) as providing a legal basis for not eliminating all risk. Robyn Pruett, on behalf of the American Petroleum Institute, listed flaws in the the epidemiology studies cited in the Wegman (2011) memorandum. Julie Goodman, on behalf of the American Petroleum Institute, provided a technical critique of the Adams studies (2002, 2006) and emphasized their uncertainties at the 60 ppb O₃ level. Michael Honeycutt, on behalf of the Texas Commission on Environmental Quality, said that the ecological epidemiological studies were not designed for policy and that EPA's reanalysis of the Adams study would not pass peer review. Allen Lefohn, A.S.L. and Associates, criticized EPA's estimate of policy relevant background for being too low, in particular, the maximum monthly diurnal concentration. Chris Emery of Environ Corporation suggested that policy relevant background (PRB) O₃ could often exceed 50 ppb, citing deficiencies in EPA's global modeling to estimate PRB. Stuart Sessions, on behalf of the American Petroleum Institute (API), said that given the wide range of uncertainty in EPA's regulatory impact analysis, it cannot be said whether the net benefits of a tighter standard will exceed costs. Dana Wood and Doug Blewitt, both on behalf of British Petroleum, presented information showing a policy relevant background of 60 ppb O₃ in the West. Milan Hazucha of the University of North Carolina said the Adams study did not conclude that there were statistically significant effects at the 60 ppb O₃ level. Nicole Downey, on behalf of BP America Production Company, criticized the statistical form of the policy relevant background estimate from Fiore et. al, (2002, 2003), saying PRB should be allowed to vary over the year. Mark Nicolich, sponsored by the API, criticized the averaging of exposure across cities, saying the co-variance between cities needed to be addressed. Anne Smith, on behalf of API, said very little of EPA's estimates of risk are due to ozone exposures above 70 ppb O₃. Nick Goldstein, on behalf of America's Road and Transportation Builders Association, said EPA should be cognizant of the impact that more stringent ozone standard would have on other public welfare effects like highway safety. Howard Feldman, on behalf of API, said the reconsideration is unnecessary and wasteful and called on EPA to address the charge questions submitted by API. William Davis of the Southern California Contractors Association criticized CASAC for recommending a standard down to 60 ppb O₃. Bruce Copley, on behalf of ExxonMobil Biomedical Sciences, said EPA's acute mortality estimates are not accurate due to confounding by other pollutants. Albert Hendler, on behalf of the American Petroleum Institute, described ozone design value trends, citing information showing a downward

trend in levels and violations of the standard. George Wolf, on behalf of the Utility Air Regulatory Group, said the reconsideration bypassed the requirements of the Clean Air Act. Skip Brown of Delta Construction said his business is heavily impacted by air quality regulations and that tighter standards would render his equipment obsolete. Stanley Young, Fellow of the American Association for the Advancement of Science, criticized EPA for not providing the data upon which it made its calculations. Jon Heuss, on behalf of the Alliance of Automobile Manufacturers said the prohibition against considering new studies in the “reconsideration” would not, in effect, be effective since panelists were already familiar with the latest science. James Enstrom of the University of California – Los Angeles said that publication bias against null or inconclusive findings was playing a role in EPA’s scientific assessments. Jack Rayburn of the Trust for America’s Health said EPA should set the standard at 60 ppb O₃ for the greatest health benefits. William Rom of the American Thoracic Society (speaking in lieu of Gary Ewart, listed as #30 on the list of public speakers) also recommended a standard of 60 ppb O₃. Jeff Patterson of Physicians for Social Responsibility described the clinical effects of ozone exposures, specifically the spikes in asthma and respiratory problems that follow ozone alerts. Kim Knowlton, on behalf of the American Public Health Association, also described the clinical effects of ozone alerts and expressed a preference for a standard of 60 ppb O₃.

Following public comments, panelists discussed the nature of the reconsideration, pondered the reasons for their involvement in the Administrator’s reconsideration and voiced different opinions on the prohibition against considering new science that has emerged since the last review. On the issue of confounding by other pollutants, one member said that EPA should be including the exacerbating effect that ozone has on health effects induced by other pollutants. Dr. Samet said he would write some introductory paragraphs reflecting the Panel’s concerns to include in the letter to the Administrator.

Dr. Samet asked the Panel to turn to charge question 2 on how controlled human exposure studies at 80 ppb O₃ inform our understanding of effects at 60 – 70 ppb O₃. One panelist said they identified disease-relevant mechanisms and underscored the inherent variability in even healthy populations with respect to their responses to ozone. Panelists then offered their thoughts on charge question 3 which asked how the controlled human exposures studies at 60 ppb O₃ inform our understanding of health effects to healthy adults at 60 – 70 ppb O₃.

Before adjourning, Dr. Samet asked lead discussants to read the public comments and other panelists’ preliminary comments and submit a consensus draft response to his/her assigned charge question.

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