

**Summary Minutes of the
U.S. Environmental Protection Agency
Science Advisory Board
Biogenic Carbon Emissions Panel
Teleconference
May 29, 2012**

Biogenic Carbon Emissions

Panel Members:

Dr. Madhu Khanna, Chair
Dr. Robert Abt
Dr. Morton Barlaz
Dr. Richard Birdsey
Dr. Marilyn Buford
Dr. Mark Harmon
Dr. Jason Hill
Dr. Lydia Olander
Dr. John Reilly
Dr. Steven Rose
Dr. Daniel Schrag
Dr. Roger Sedjo
Dr. Ken Skog
Dr. Tristram West
Dr. Peter Woodbury

Purpose: The Science Advisory Board (SAB) Biogenic Carbon Emissions Panel discussed its draft SAB report, dated 5-29-12, on EPA's *Accounting Framework for biogenic CO₂ Emissions from Stationary Sources (Sept. 2011)*.

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

Other EPA Staff: Jennifer Jenkins, Sara Ohrel, Christopher Sherry, Angie Dickens

Public: Jake Donnay (National Association of Foresters), Chris Farlay (U.S. Forest Service), Rachel Fields (ICF International), Bill Hohenstein (U.S. Department of Agriculture), Steve Wallendar (U.S. Department of Agriculture), Patrick Griffith (Los Angeles County Sanitation District), Dawn Reeves (Inside EPA), Joel Visser (Sidley Austin), Mary Booth (Partnership for Policy Integrity), Mark Flugge (ICF International), David Carr (Southern Environmental Law Center), Rachel Steele (ICF International), Sasha Lyuets (National Resources Defense Council), K.E. Hodson (Department of Energy), Paul Noe (American Forest & Paper Association), Sarah Biggar (ICF International), Rubab Bhangu (ICF International), Bruce McCarl (Texas A&M University), Charlie Canham (Cary Institute for Ecosystem Studies), Gregg Marland (Appalachian State University), Stephen Ogle (Colorado State University), Steve Prisley (Virginia Tech), Adam Chambers (Natural Resources Conservation Service), Neil Sampson (The Sampson Group), Thomas Buchholz (Spatial Informatics Group)

Meeting Materials and Meeting Webpage:

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

<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/e1f653dd05807e94852579ca00551aaf!OpenDocument&Date=2012-05-29>

- Agenda
- Federal Register Notice
- Agency Charge
- Draft Report of 5-29-12
- List of public speakers
- Agency Review Document
- Public Comments (written):
 - American Forest & Paper Association comments
 - Georgia Pacific LLC
 - Jody Endres
 - Mary Booth
 - ReCommunity Inc.
 - Rubber Manufacturers Association Comments
 - USDA Comments submitted by William Hohenstein

Meeting Summary

The discussion followed the plan presented in the meeting agenda.

MONDAY, MAY 29, 2012

Dr. Stallworth convened the meeting and explained that the Science Advisory Board operates under the Federal Advisory Committee Act. Dr. Madhu Khanna described the purpose of the meeting as an opportunity to hear any remaining issues from panelists on the May 29, 2012 draft Advisory (posted at the URL above).

Public Comments

Gregg Morris of the Green Power Institute said that low probability – high consequence events like fire and disease outbreaks were ignored by both the Framework and the SAB Panel’s draft Advisory. Mr. Morris emphasized the effect of forest thinning on reducing the probability of fire and the need to model major loss events. In response to a question from a panelist, Mr. Morris defined a “catastrophic” loss as a fire that kills half of more of the biomass in a forest.

Mary Booth of the Partnership for Policy Integrity said a California study commissioned by Winrock International found no carbon benefit from thinning and controlled burns. Quoting a presentation from the National Oceanic and Atmospheric Administration, Dr. Booth described the oceanic problems caused by near-term carbon dioxide, specifically the growing problem of ocean acidification. Under a “business as usual” scenario, ocean acidity could increase by 100% or more by the turn of the century. Dr. Schrag challenged Dr. Booth’s focus on the short-term effects of greenhouse gases when long-term coral survival was the greatest threat. Dr. Khanna noted that there are a number of other short-rotation feedstocks that do not have significant carbon

consequences. Dr. Booth said most new biomass electricity generating facilities were designed to use trees cut from local forests.

William Hohenstein of the U.S. Department of Agriculture (USDA) said that USDA believes biomass can play an important role in mitigating the build-up of greenhouse gases in the atmosphere. He expressed appreciation for the SAB's focus on scientific confidence and uncertainty. He stressed the carbon benefits from using biomass feedstocks from existing land uses with shorter recovery rates and feedstocks derived from wastes, agricultural and forest residues, and thinnings for the purposes of reducing fire risk. Mr. Hohenstein said USDA preferred the accounting approach of the Intergovernmental Panel on Climate Change (IPCC) which captures temporal oscillations between growth and removals. He applauded the Panel for its recommendation to consider a feedstock-based accounting approach and recommended "conditional" exclusions for feedstocks that are approximately carbon neutral or substantially beneficial relative to fossil fuels. He asked EPA and/or the SAB to clearly identify feedstocks for which the science supports biogenic accounting factors (BAF) of 0. Dr. Khanna said she thought it would be premature for the Panel to recommend that particular feedstocks receive a BAF of 0.

Panel Discussion

Dr. Khanna directed the Panel's attention to the revised May 29, 2012 Advisory posted at the meeting webpage. Dr. Barlaz said he would like to add text to recognize a point made by some of the public comments, specifically that methane emissions from landfills are covered in other regulatory contexts. Dr. Barlaz said that if the Accounting Framework were to incorporate avoided methane emissions more carefully, a life cycle analysis would be needed.

Addressing recent edits to the draft Advisory made by Dr. Rose, Dr. Khanna addressed Dr. Rose's emphasis in the text that recommended consistency between the treatment of fossil fuels and biogenic feedstocks with respect to non-CO₂ emissions. According to Dr. Khanna, if the Panel is recommending inclusion of non-CO₂ emissions for biomass, then it must also recommend consideration of non-CO₂ emissions for fossil fuels if it is to be consistent with its recommendation for parallel treatment of fossil fuels and biogenic feedstocks. After discussion of the specific language in the draft Advisory, panelists decided to keep the recommendations as stated.

Panelists addressed various other sections of the report, in particular language referring to the use of an anticipated baseline for feedstocks other than roundwood. One panelist stressed new text that said an anticipated baseline would allow for consideration of prior land use and management. Panelists decided to retain a statement that said the use of unspecified "regions" is a central weakness of the Framework. One panelist worried about forest products that were exported without any consideration of their carbon consequences. Another panelist asked that text be added to the draft Advisory to acknowledge the problems with certification. Panelists decided to keep the text that pointed out the narrow boundaries of EPA's analysis. Finally, a decision was made to export the text on the Cherubini et al. (2012) analyses to an appendix.

Dr. Khanna asked the Panel whether there was consensus to move the draft Advisory forward to the chartered Science Advisory Board for their review. All panelists on the call offered their concurrence except Dr. Sedjo who said he was not ready to concur. Dr. Stallworth said panelists

could expect to see a revised draft within a couple of weeks and that minor cosmetic changes could still be entertained at that time.

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

Certified as Accurate:

Madhu Khanna, Ph.D. /s/
Chair, SAB Biogenic Carbon Emissions 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 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