

Summary Minutes of the
U.S. Environmental Protection Agency (EPA)
Science Advisory Board (SAB)
Environmental Economics Advisory Committee (EEAC)
Public Meeting
October 23 - 24, 2008

Committee Members: Dr. Cathy Kling, Chair
Dr. Laura Taylor
Dr. Anna Alberini
Dr. Peter Wilcoxon
Dr. Jim Hammitt
Dr. Jim Shortle
Dr. David Zilberman
Dr. John List (by telephone)
Dr. George Parsons
Dr. Madhu Khanna
Dr. Jim Opaluch
Dr. Michael Greenstone

Date and Time: October 23, 2008, 8:30am – 5:00pm

Purpose: The SAB EEAC reviewed the revised *Guidelines for Preparing Economic Analyses*.

SAB Staff: Dr. Holly Stallworth, Designated Federal Officer

Other EPA Staff: Andrew Lee, Nathalie Simon, Richard Garbaccio, Ann Wolverton, Chris Moore, Jim Democker, Chris Dockins, Charles Griffiths, Kelly Maguire, Al McGartland, Trish Hall, Will Wheeler, Joel Corona, Peter Nagelhouse

Other: Sandra Hoffman, Resources for the Future
Jenny Johnson, Inside EPA

Meeting Summary

The discussion followed the issues and general timing as presented in the meeting agenda.

THURSDAY, OCTOBER 23, 2008

Opening of Public Meeting

Dr. Holly Stallworth, Designated Federal Officer (DFO), opened the meeting with a statement that the Environmental Economics Advisory Committee (EEAC) is a standing

committee of the chartered Science Advisory Board. As such, EEAC is a federal advisory committee whose meetings and deliberations must meet the requirements of the Federal Advisory Committee Act.

Dr. Kling reviewed the agenda and purpose of the meeting then turned the floor over to Dr. Nathalie Simon of EPA's National Center for Environmental Economics (NCEE) who walked the audience through a background of the *Guidelines*, covering its scope, recent changes, and chapter-by-chapter improvements. Dr. Simon's slides may be found posted at <http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/655cf60bfe48e93a8525742c006d2493!OpenDocument&Date=2008-10-23>. Following Dr. Simon's presentation, EEAC members inquired about the audience for the *Guidelines*. Both Dr. Simon and Dr. Al McGartland, Director of the National Center for Environmental Economics (NCEE) responded to EEAC questions about the audience and purpose of the Guidelines.

Dr. George Parsons presented his preliminary thoughts on charge question 1 on the *Guidelines'* discussion of different policy options. EEAC members discussed the difference between cost effectiveness and achieving the optimal level of pollution reduction where marginal costs equal marginal benefits. Other issues raised were the role of market structure, the effectiveness of voluntary approaches, the "special" case of nonpoint sources, the notion of "second best," the difference between technology standards and performance standards, the role of liability rules, and the revenue-raising property of taxes. Several members called for a richer discussion of why economists prefer price signals.

Dr. Madhu Khanna led the discussion of charge question 2 on consideration of the baseline in cost benefit analysis. Dr. Khanna highlighted the need to identify the scope of the baseline scenario. Other members questioned the Guidelines' assumption of "full compliance" with one member dryly noting that "fictional assumptions aren't useful."

Dr. Jim Hammitt led the discussion of charge question 3 on discounting. Members discussed the Newell and Pizer approach of using lower discount rates as the time horizons lengthens. Members generally agreed that the choice of discount rate should not be used to resolve issues of uncertainty; and that the two rationales for discounting (marginal product of capital and the role of time preference) should be clearly distinguished.

Dr. Peter Wilcoxon led the discussion of charge question 7 on computable general equilibrium (CGE) models, highlighting the need for EPA to discuss how models are parameterized. One member said the advantage of CGE models is that they account for interaction between sectors but at the cost of losing detail on a particular individual sector.

Dr. Jim Opaluch led the discussion of charge question 6 on estimating social costs, highlighting the need to emphasize the temporal dimension. Among the shortcomings

mentioned by members was the need to acknowledge other market structures, the need to discuss input markets and the need to discuss consumer surplus in addition to producer surplus. Members pointed out certain overarching issues that should go in an introductory chapter and raised the possibility of moving figures on surpluses and dead weight losses into the introduction.

By telephone, Dr. John List led the discussion of charge question 8 on distributional effects, highlighting the need to balance data acquisition costs against the value of accuracy. Dr. List discussed the need to discuss the advantages and disadvantages of a partial equilibrium approach vis-à-vis general equilibrium. One downside of the partial equilibrium approach is that doubling counting could occur if the outputs from firms operating upstream and downstream are not considered jointly. One member raised the issue of intergenerational equity and whether it should be included in this section.

Dr. Anna Alberini led the discussion of charge question 4 on different valuation approaches, emphasizing the need to update the literature on morbidity as well as the need to improve the ecological benefits section.

Dr. Laura Taylor led the discussion of charge question 5 on the value of statistical life (VSL), emphasizing the benefits transfer issues that occur when transferring risk valuations from wage studies to environmental risks. Dr. Taylor highlighted the poor quality of hedonic wage data prior to 1994 and stressed the need to update the *Guidelines* with the most recent studies.

In reference to Appendix A: Economic Theory in the *Guidelines* (question 10) and to question 11 asking EEAC to identify any omissions in the *Guidelines*, members debated the advantages and disadvantages of stated preference versus revealed preference approaches to valuing environmental attributes and generally concluded that the *Guidelines* should be rigorous in discussing the shortcomings of each approach. One member pointed out that some of the physical indicators (e.g. water quality) are far more uncertain than any economic estimates. Another member highlighted the relevance of the last decade of experimental research that pertain to estimating marginal changes in attributes. Another member suggested EPA go back to the recommendations from the meta analysts who examined the literature on VSL (see NCEE's *Report of the EPA Workgroup on VSL Meta Analysis*, 2006 posted at <http://yosemite.epa.gov/ee/epa/erm.nsf/vwRepNumLookup/EE-0494?OpenDocument>).

FRIDAY, OCTOBER 24, 2008

The final day of the meeting was devoted to each member discussing key points pertaining to his/her assigned charge question. Dr. Kling led the panel in a discussion of issues that could go in a conceptual overview chapter. EEAC members again talked about whether the *Guidelines* merited a different chapter on how to assess the quality of evidence and whether the *Guidelines* needed more detailed case studies. Among the miscellaneous points covered were issues of evaluating data quality and empirical evidence, the need to update the literature on the revealed preference and stated

preference literature and the need to relate benefits and costs to non-monetary metrics like ecological footprints.

Before adjourning, Dr. Stallworth and Dr. Kling charged members with revising their responses to charge questions by November 4, 2008.

Respectfully Submitted:

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

Certified as True:

Cathy Kling, Ph.D./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.