

**Compilation of Member Comments on the EEAC Draft Advisory  
On EPA's Economic Analysis Guidelines  
SAB Teleconference of August 6, 2009**

**1. Dr. Kathleen Segerson:**

**Comments on EEAC Advisory on *Guidelines for Preparing Economic Analyses***

**Were the original charge questions to the SAB Panel adequately addressed in the draft report?**

The advisory report is very responsive to the charge questions. Each of the charge questions is addressed and answered in detail. In addition, the EEAC provided general comments (of a "cross-cutting" nature) on the *Guidelines*. These comments were all very thoughtful and the review was very thorough. I have a few specific comments (see below), but overall the report is excellent.

**Is the draft report clear and logical?**

The report is very clear and logical. Issues and concerns, as well as recommendations for improvement, are discussed in a clear and logical way.

**Are the conclusions drawn, and/or recommendations made, supported by information in the body of the draft SAB report?**

Yes. The report contains many recommendations for improvement, and for each, it provides detailed justification for the recommendation as well as specific advice on how it can be implemented (e.g., specific topics that require inclusion or further elaboration, along with key references to use for this purpose).

**Some Specific Comments:**

1. p. 3: I don't know what "ensemble modeling" is. This should be explained.
2. p. 3: The fact that nonpoint pollution is characterized by unobservable and stochastic emissions means that policy instruments such as an emissions tax cannot be used, but, contrary to what is stated here, it does *not* mean that second-best policies are required. There are first-best policies (based, for example, on ambient water quality) that can, at least in theory, be used to address non-point pollution, and experimental literature suggests that under certain conditions these instruments can lead to first-best outcomes even in the lab. So, this statement needs to be corrected.

3. p. 3: The discussion of the allocation of resources in undertaking economic analysis suggests that the decision regarding how much to invest in collecting new data depends on the size of the project, and that one might want to collect new information “even if they lead to only small changes in the final regulation or policy decision.” However, the decision regarding whether a certain expenditure on data collection is “worth it” or not should be based on a “value of information” argument, i.e., whether the net benefit of having the information exceeds the cost of collecting it. It is well-known from the VOI literature that, if the information will not change the regulatory decision, then the benefit of collecting the information is zero, and therefore, if collecting the information is costly, it should not be collected. The language in this paragraph should be changed so that it does not imply that information should be collected even when it will not change decisions much.

4. p. 11: I would like to see here a clearer distinction between consumption discounting and utility discounting, with a discussion of the possible implications of this distinction in a specific context like climate change. Something like the debate among economists over the Stern Report could be used to illustrate/motivate the discussion. To say that the discount rate is “best understood as being determined by a price” both suggests that there is only one discount rate and does not draw a clear distinction between these two types of “discount rates” (as the term is used in policy debates). Furthermore, the report should be clearer about the fact that, unlike the consumption discount rate, the utility discount rate can be viewed as a parameter of the social welfare function, and different people will have different views about what that parameter “should” be (e.g., whether it is ethical to have positive utility discounting, whereby the utility (not consumption) of future generations is given less weight in the social welfare function than the utility of the current generation). The controversy and debate over this issue needs to be acknowledged. It is not simply a question of “estimating” the discount rate, as suggested in the *Guidelines*.

5. p. 11: I don’t understand the sentence that states “Economic evaluation is normative in that it is conducted in order to compare alternative policies, yet it is positive in that it attempts to identify the policy that maximizes the perceived welfare of the affected population.” First, comparing the *impact* of alternative policies on, for example, behavior is a form of positive analysis, not normative analysis. And any analysis that is based on social welfare maximization is normative, not positive. So it seems that the report is not using the terms “positive” and “normative” in the way that they are typically understood.

6. p. 15: For some reason some of the references here are cited by the title of the publication rather than by the author(s), which is inconsistent with the format in the rest of the report and makes it hard to look them up in the reference list. This should be changed.

7. p. 17: I believe the publication/copyright date on the NRC Report is 2005, not 2004.

8. p. 17: In the “strong” recommendation to provide “quantitative measure of ecological impacts and a qualitative characterization of ecological effects”, it is not clear whether the intent is to have EPA do this *when benefits cannot be monetized*, or even when they can be. Of course, some type of quantification of effects is a necessary input into monetization, but it should be clarified how this information relates to other information that would be provided about monetized benefits.

p. 21: The report states that “newer stated preference studies...should be referenced” but does not suggest any references. I think it would be helpful to provide at least one or two examples of the newer studies the SAB is suggesting be referenced here.

## 2. **Dr. Otto Doering:**

Were the original charge questions adequately addressed?

Yes

Is the report clear and logical?

Yes

Are the conclusions drawn, and/or recommendations made, supported by information in the body of the report?

Yes

Specific Comments;

Executive summary:

page 1, point 1; The discussion of the nature of "cost effective" and distinguishing it from other concepts like least cost and cost benefit is extremely important. Once the public determines what it wants (example; Clean Air Act Amendments of 1990) then policy has to be directed to meeting the public will in the most cost effective way - which may not be the most efficient or least cost way when all options are considered.

page 2, point 3, b: The shadow price of capital adjustments is a really difficult area and depends on fiscal and monetary policy and exchange rates, etc.. Having lived through negative nominal and real rates of interest and 13% returns on government long term obligations I find it difficult to hang policy on it.

page 3. point 3, d; The comment here that multiple alternatives should be considered is very important and valuable.

page 3, point 3, e; The comment that this is a judgment call is extremely important. There cannot be a "rule" here that does the job.

page 5. point 11; The comment that many more explanatory examples are needed should be acted on.

Report text;

page 2, 1st full paragraph; Comment is correct - OMB requires B/C analysis for program rules, etc. not just regulations.

More general comment stemming from the discussion of uncertainty at the bottom of page 2, and transparency on the bottom of page 1; There has to be more attention to quality and validity of data. Any action requiring economic analysis for regulatory or other uses to guide actions has to have protocols for validation, verification of data and consideration of uncertainty of data. This carries over to deciding where the biophysical or other relationships essential to the analysis are good enough for the purpose at hand.

page. 5; The comment that EPA needs to clarify and discuss the Agency's specific role in policy design and implementation is critical important and needs to be followed.

page 5; The comment that performance standards need to be better defined and clarified is important. Performance standards are becoming more important as part of "market based" solutions that are being proposed and they need to be well understood.

page 7, 3rd paragraph; The key to this is not only second best (and third and fourth) solutions, but making sure that there is full understanding of the trade-offs involved.

page 8, Understanding of the effectiveness (or lack of it) of voluntary approaches is becoming increasingly essential.

page 9, 3rd paragraph; full compliance with regulations is not realistic!

page 14, the time horizon can be as critically important as the discount rate. Exercising good judgment is critically important. A set of rules will not solve this.

page 17; The question here is not only do we know the biophysical relationships that allow us to characterize ecosystem dynamics but more and more we are being asked to identify tipping points that will have very different characteristics for economic analysis.

page 18; I further emphasize the comments on validity and the line at the top of page 19 that judgment is essential to good analysis. Are we willing to be transparent enough to say that there are critical areas that depend on good judgment in economics - just as do some areas in biophysical or other scientific analysis?

page 24 and 26; The cautions on CGE models and the importance of understanding their limitations and assumptions is critically important now that they have become a

major tool for regulation. Many of the things mentioned here, like perfect competition, mobility of resources, importance of accurate elasticities are not explained sufficiently to users. In periods of economic transitions (like our current times) the assumptions that CGE models make in these critical areas are almost certain to be off course - which is why tying elasticities to historical record has problems as well. The CGE models may be most useful for sensitivity analysis assessing the impact of changes of these important variables. However, they are being used for point projections.

page 26, bottom of the page; there should be some discussion of the consideration of math programming and simulation modeling. These can be extremely powerful tools complementing the traditional econometric and more recent CGE models. They are not as fashionable as the econometric and CGE models, and for many purposes they appear to be more useful.

Again, the comment for more case studies and examples is very important.

3. **Dr. James Sanders**: Overall, this is a well-crafted report that carefully considers the charge questions, and provides useful advice to the Agency.

A) the original charge questions to the SAB Panel were adequately addressed in the draft report:

Yes, the the EEAC have addressed the charge questions. Their responses are clear, and contain numerous examples of both major and minor improvements that could be considered.

B) the draft report is clear and logical:

Yes. The language is clear, even for a “non-economist”. The brief comments in the executive summary generally follow the more detailed comments in the body and the letter to the administrator is well crafted.

C) the conclusions drawn, and/or recommendations made, are supported by information in the body of the draft SAB report:

Yes.

I do have a few minor suggestions, or caught typos to offer. None are significant.

P. 1. Executive Summary. I suggest that the EEAC insert a paragraph here that states that the committee in general found that the draft Guidelines have been updated well. Specifically, I suggest that the second paragraph of the letter to the administrator, with only minor modifications, could be used. I would make this the second paragraph of the Executive Summary, just before the first charge question and answer. This insertion would “soften” the summary, and help those

readers who will only read the summary to better understand the committee's overall satisfaction with the draft Guidelines.

P. 3. Answer to CQ 4, second line. However is followed by a period. It should be a comma.

P. 4. Answer to CQ 7, first line. I suggest We or We would instead of We'd.

P. 1. Background (incidentally, should the pages above be in roman numerals?). First and second paragraph. In the first paragraph, I recommend striking "and is currently updating these Guidelines to reflect the latest developments in environmental economics." This is repeated almost verbatim in the first sentence of the second paragraph and appears more appropriate there. Further, I would join these two paragraphs into a single one.

P. 3. First full paragraph, line 8. I believe nation's is correct, not nations'.

P. 3. First full paragraph, line 9. Insert "in" between emphasized and the?

P. 3. Second full paragraph, line 9. Why is there a dash after project?

4. **Dr. LD McMullen:** I have reviewed the letter and report. I think the committee did an excellent job in answering the charge questions and organizing the report by charge question, making it very easy to follow. I have no technical input to be added/changed to the letter or report.
5. **Dr. Timothy Buckley:** I have taken a look at the letter and report and it is my assessment that the report is responsive to the charge questions, is clear and logical, and the conclusions and/or recommendations are supported. I do have a couple of suggested edits on the letter if you are interested, I will be happy to forward but I know that this review has a much broader purpose.
6. **Dr. Jill Lipoti:**
  - a) the original charge questions to the SAB Panel were adequately addressed in the draft report -- Yes
  - b) the draft report is clear and logical -- Addressing the cross-cutting issues first, before the charge questions was a good strategy to cut down on repetition. Recommending that case studies be used to illustrate points in the Guidelines and providing suggestions for the cases helped with clarity.
  - c) the conclusions drawn, and/or recommendations made, are supported by information in the body of the draft SAB report -- Yes.
7. **Dr. Steve Roberts:** I have absolutely no expertise in economics, and consequently cannot comment on technical aspects of the SAB report. However, I found the report to be clearly organized and well written. All of the charge questions were adequately

addressed, although the committee may want to take a look at the Executive Summary response to Question 5. This question is answered in the main body of the report, but the abbreviated response in the Executive Summary appears cryptic and unrelated to the question. Conclusions and recommendations appear to be supported by information in the body of the draft SAB report. Overall, the report is very well done.

**8. Dr. Valerie Thomas:**

a) Are the original charge questions to the SAB Panel were adequately addressed in the draft report?

Yes.

b) Is the draft report is clear and logical; and  
c) are the conclusions drawn, and/or recommendations made, supported by information in the body of the draft SAB report?

The draft report is, in most cases, clear and logical and the conclusions are supported in the body of the report. However, overall the Executive Summary is clearer than the body of the report, and some points are only clarified in the comments from individual members. Some points that could be clarified are as follows:

Question 1. The response to question (1) in the Executive Summary, *on the merits and limitations of the different regulatory and non-regulatory approaches discussed in Chapter 4*, says “We also recommend a better distinction between efficiency and cost-effectiveness, improvements to the discussion of “cap and trade,” a better definition of design standards and technology based performance standards and the inclusion of recent literature on voluntary approaches and the observability of information.”

However, in the full response to question (1) these issues (pp. 5-8), while discussed, are not presented clearly; it seems that no references on the observability of information are cited; if Xabadia et al. is the reference on observability that should be clarified. This section would be improved if one paragraph were devoted to each of the points made in the executive summary.

Question 2. The strong and weak forms of the Porter hypothesis are discussed in the body of the report, on page 9 in response to question (2) on baselines, but no references are provided. Inclusion of the references on the strong and weak Porter hypothesis would make the review more useful. Induced innovation is mentioned in the Letter to the Administrator, but is not mentioned in the Executive Summary. This topic seems important enough to be mentioned in the Executive Summary.

Question 10: The response to question 10 on page 5 in the Executive Summary, regarding the appendix on Economic Theory, recommends distinguishing between stock and flow pollutants and the inclusion of the concept of user costs. In the body of

the review, on page 28, these same comments are made but need more explanation or support. The point about stock pollutants does seem to be expanded later, in the response to question 11 and the comments from individual members (p. 32). Clarification and perhaps cross-referencing of these comments would help to clarify this discussion.

9. **Dr. Judy Meyer:** Meyer comments on EEAC report

I found this report very readable. Identifying the cross-cutting issues at the beginning of the report was an excellent approach.

The original charge questions were adequately addressed.

The report is clear and logical.

The conclusions and recommendations are supported by what it is the report.

My one concern with the report is the fact that nothing is said of the extensive research on ecosystem services being done in ORD. Most of my comments below relate to that.

Letter to Administrator, page 2, second paragraph: In addition to acknowledging the CVPESS report, some acknowledgement should be given to the fact that ORD now has an Ecosystem Services Research Program that will be providing useful information to the agency on these very issues.

Text of report

p. 2, paragraph 2: Here is another place where ecosystem services are mentioned and where some mention of the work being done on this subject in ORD could be acknowledged. It is an area where there currently is significant EPA investment in research; I think that should be acknowledged and the potential usefulness of that research should be recognized.

pp. 16-18, point 6 dealing with ecosystem services. Here is another place where the fact that there is currently considerable ORD research dealing with ecosystem services and their valuation should be recognized. It seems appropriate to suggest that they consult with the Ecosystem Services Research Program as they revise this section. It seems as though they have not used the expertise in this area that is available in the agency!

I'm not sure I have seen an appendix with individual's comments in it in previous reports. What do we expect the recipients of the report to do with that? Are these comments that the group could not or did not bother to agree with? They are more than editorial in many cases, so I wonder if some statement about what they represent is needed as an introduction.

## 10. Dr. Kerry Smith

Issues for discussion –V. Kerry Smith 8-6-2009

1. VPES report and *economic measures of tradeoffs*
2. CGE –costs AND benefits; separability and feedbacks; no examples when they exist in literature –Espinosa and Smith (1995), Carbone and Smith (2008) Smith and Carbone(2007a,2007b) –why in costs and not benefits; also types of CGE work –sorting vs conventional CGE; -sorting work –Timmins and Murdoch (2008), Bayer Keohane and Timmins(2009),Walsh(2007), Banzhaf and Walsh (2008)
3. handbook of environmental economics (2005) has updates to methods seem to be ignored; updates to topic areas spotty –VSL yes; travel cost no as well as hedonic not complete or current
4. connection between research and practice and criteria for updating practice\*
5. quasi experimental work and nonmarket valuation
6. field experiments
7. research program and connecting to it\*
8. recent work by Morgenstern, Heinzerling and Harrington
9. carbon and double counting for criteria air pollutants
10. systematic means to communicate with env economists doing research about challenges facing policy analysts\*

## 11.