

**U.S. Environmental Protection Agency
Advisory Council on Clean Air Compliance Analysis (Council)
Special Council Panel for the Review of the Third 812 Analysis
Summary Minutes of Public Teleconference
Date: December 19, 2003**

Committee Members: (See Roster - Attachment A)

Date and Time: 12:00 p.m. to 2:00 pm, December 19, 2003 (See Federal Register Notice - Attachment B.)

Location: By teleconference only

Purpose: The purpose of the call was to (1) to review and act on a draft report from the Council's Health Effects Subcommittee; and (2) to plan for the Special Council Teleconference on December 22, 2003.

Attendees: Chair: Dr. Trudy Cameron; Ms. Laurie Chestnut, Drs. John Evans, Lawrence Goulder, James Hammitt, Dale Hattis, Charles Kolstad, Nino Kuenzli, Lester Lave, Virginia McConnell, Warner North, Bart Ostro, Kerry Smith, Chris Walcek.

Other Persons Attending: From EPA: James DeMocker, Brian Heninger, Bryan Hubbell, Trish Koman, Harvey Richmond, Katie Walker, Lisa Conner, Brian Heninger, Mary Rees,. EPA Contractors: Leland Deck, Abt Associates; Jim Neumann, IEC; Katie Walker, IEC.

Meeting Summary:

The meeting followed the issues and timing as presented in the meeting Agenda (see Meeting Agenda - Attachment C). The teleconference lasted until 2:00 pm. Mr. DeMocker submitted written comments (Attachment D) and provided oral comments, and there was no other written or oral comments during the discussion.

Welcome and Introductions. Dr. Angela Nugent, Designated Federal Official (DFO) opened the session at 12 p.m. and took roll. - Dr. Trudy Cameron, the Chair, reviewed the agenda.

Comments from the Agency

Mr. Jim DeMocker summarized four "significant points" regarding the HES report. These comments are highlighted in bold in Attachment D: 1) he noted an inconsistency between the cover letter, Executive Summary, and text in the main report as to whether the "pilot study methods and results" should be peer reviewed or just the process; 2) he requested clarification of what HES means by "the benefit derived for restricted-activity days may partly or fully include the asthma exacerbation" and asked whether the HES means to imply available economic valuation estimates for RADs would capture all relevant benefit components of asthma exacerbation, including cost-of-illness, pain and suffering, etc.; 3) he noted an inconsistency between the advice conveyed pertaining to estimation of lost life-years for the cohort studies in

the responses to charge questions 14 and 17 and suggested a clarification of the intended advice; and 3) he asked for a clarification of the advice pertaining to the cessation lag (i.e., whether it recommends modeling cessation lag for individual causes of death or recommends use of a three-segment Weibull or uniform distribution for acute (0-6 months), short-term (2 to 5 years) and long-term (15-25 years) exposure periods.

Introduction to the Draft Report

Dr. Bart Ostro, Chair of the HES provided an overview of the HES review of the agency's draft analytical plan. He characterized the HES as generally supportive of the Agency's approach, which represented a good reflection of the scientific literature available. He pointed out that there were several areas where health effects were evident but not sufficiently documented to be included in the quantitative analysis and thus there will be a large impact that will be missed (e.g., air toxics, long term exposure effects of cardiopulmonary impact on morbidity as part of the disease process.)

The HES noted additional areas where data exist and estimates should be provided. He noted that the HES advised the Agency to include asthma exacerbation in its primary estimates, despite uncertainties associated with that effect. He highlighted the HES support for development of meta analysis for ozone mortality that may be independent of PM related mortality for short-term exposures. He described the HES response to Charge Question 11, an omnibus charge question, where the Subcommittee addressed specific issues in area of benefits estimates that have cropped up in last 5-10 years.

Dr. Nino Kuenzli then introduced the Subcommittee's response to Charge Question 29 concerning the Agency's plan for an expert elicitation pilot on the topic of premature mortality. Dr. Ostro had recused himself from Subcommittee discussions on this topic and Dr. Kuenzli had led the discussions in his stead.

Dr. Kuenzli reported that the HES was in general supportive of the expert judgment pilot, as reflected in the Subcommittee's draft report. The Subcommittee faced a challenge in developing and providing advice to the Agency on this topic because the expert elicitation pilot was a "work in progress," with planning and actual implementation beginning as the HES developed its advice. He noted that the Agency's process evolved in a good direction, since the Agency addressed many of issues HES initially raised. The HES was concerned about how the experts would be balanced, how they would be selected, if and how information would be aggregated, and how, time-series studies vs. cohort studies would be addressed. The HES draft report, as a result, reflects a few remaining concerns about the Agency's ongoing process. The report reemphasized the opinion that too small a sample of experts may lead to a product that may not reflect the heterogeneity of a larger sample and advised strongly that the pilot should be called a pilot and not too much weight put on results. He also emphasized that the current pilot protocol does not provide the needed opportunity to express contradictory evidence. The HES envisions that a workshop would be beneficial to supplement the pilot. The last major point was that the HES felt that it would be useful to have a uniform concept for asking experts to express

probability.

Concerning the issue raised by Mr. DeMocker about inconsistencies in the text, he saw that issue as easily resolved. The HES view was that the whole product be reviewed, not the review of the answers of the experts. The review would be of the overall process and outcome and he will clarify. He also will work with the DFO to address an error in the last section regarding use of the dynamic vs. the static approach. The HES intended to express the view that in the future, a move to the dynamic approach would be desirable, based on life tables.

Dr. Ostro then addressed Mr. DeMocker's point regarding RADs and asthma. He agreed that the text language could be clarified to express the advice that the Agency should estimate asthma attacks and subtract number of RADs estimated. Dr. Bryan Hubbell from EPA asked whether the RAD estimated be specific to limited age groups, such as adults. Dr. Ostro responded that there was no reason to limit the RADs to a specific age group. Dr. Hubbell expressed surprise at advice regarding extrapolation across different age groups. Dr. Ostro responded that the Subcommittee discussed advising the Agency to consult experts in the field on asthma and asking about impacts on different age groups; the Subcommittee thought it "didn't make sense to limit effects to small age groups that have been studied."

Concerning the question about the cessation lag, the Subcommittee expected to see some benefits quickly after pollution levels; the literature reports effects within 1-6 years; even 0-5 years, related to cardiovascular literature. In some cases, there are benefits in year and half or so. A third case reflects lung cancer cases where you expect longer-term pattern in terms of improvements. These examples suggest of different kinds of patterns, even if disease-specific lags are not entirely known. An approach that would complement this state of knowledge would be to smooth out lags using a Weibull or other tool. Mr. DeMocker suggested that the Agency might apportion mortality among different kinds of effects, then do weighted lag structure. Dr. Ostro confirmed that such an approach would be consistent with the advice intended.

Discussant Comments

Dr. Lester Lave, the first discussant, framed his comments with an acknowledgement that the report was a "good report." In regard to discussion earlier in the teleconference, he cautioned the Council and the Agency to "focus on what will impact 812 numbers." EPA should focus its analytical attention and limited resources on what is most important in estimating benefits, and then focus on science issues that are important but not major drivers, such as morbidity issues.

Dr. Lave then turned to his prepared comments (See Attachment E). He noted important points made in the Subcommittee report: 1) ozone precursors to PM 2.5 need to be addressed and the last 812 Study did not do that--such analysis will be useful for evaluating mobile source program; 2) in regard to the toxic pollutant health effects, the comments made on benzene are absolutely on target (he noted that the HES was not asked to address the hazardous air pollutant issue in more detail, but that this issue was very important, since EPA is about to spend more on toxic pollutants and will need to examine benefits); and 3) the text on page 10, paragraph 2

regarding sources of pollution and which components of the air pollution abatement programs have positive net benefits. He reminded the Council that the Deputy Assistant Administrator, Mr. Robert Brenner, highlighted this issue as one that "we have to ferret out in more detail."

He then commented on the expert elicitation issue. He noted that when he participated in an elicitation, he was struck by the "amount of overconfidence experts were displaying." He believed that "their 95% confidence intervals really converted to 45% confidence intervals" and emphasized that the literature shows that experts are overconfident. He urged that the a subsequent review of the pilot results should check for how that overconfidence issue was addressed and whether the experts were asked some pointed questions, such as the likelihood of a point outside the range.

Dr. Virginia McConnell, the second discussant, then followed with her comments. She agreed that the report was excellent. She committed to providing minor and editorial points in writing (See Attachment E). She raised a question about how the Agency and the Council intended to reflect different types of uncertainties in the 812 Study. She understood the base case would be expressed in a way that reflected statistical uncertainties. Beyond those statistical uncertainties, she noted that there were many other kinds of uncertainties and assumptions made. Throughout the HES draft report, she noted many references to uncertainties (e.g., uncertainties in exposure assessments, impacts on children) and she understood that these would be addressed in sensitivity analyses. She asked if would be useful for the Agency to think about the major assumptions in the report and then reflect on statistical uncertainties of each. One example would be premature mortality for PM 2.5 and how these uncertainties are reflected in the base case. She expressed concern that when the Agency expresses statistical uncertainties around the base case, readers will take these uncertainties as the bounds. Because of the many other assumptions made, there are many other uncertainties and they are not communicated well.

Dr. McConnell asked whether the plans for the expert elicitation pilot allowed experts to express their sense of the findings from cohort and time-series studies. She acknowledged that it was not appropriate to weight responses to those different studies formally.

Dr. McConnell then asked about underlying assumptions regarding cardiopulmonary disease. She asked whether the assumption is that the expected remaining life of those groups would be the same, and whether there was an underlying medical reason for that assumption.

Dr. Ostro responded to many of Dr. McConnell's comments. He noted that the First Prospective Report had identified the most important uncertainties: the shape of the dose-response curve to long-term exposure to PM, the valuation of mortality, and the threshold issue. The National Academy of Science report and the HES draft report support the Agency to "go beyond what they did last time" in just naming those uncertainties and to estimate probabilities. Thus, the pilot elicitation study was attempted. For assumptions without major significant impact on the bottom line, the Agency could possibly make its assumptions clearer and could put suggestive weights on different assumptions.

Dr. Ostro noted that the elicitation did query experts about the time-series vs. cohort studies.

Council Discussion of HES Report

The teleconference then turned to a general discussion of the HES report. One member noted that peer review of the expert elicitation pilot could involve a review of overall conclusions drawn from the pilot and not just the process used for the pilot. A key question is "What should we conclude from results of experts' elicitation?" He agreed that experts' views may not provide the final answer because of the over-confidence issue. A Council member responded that it was not clear from the materials provided how the experts' judgments were to be reported. If experts' views are reported separately and there are non-overlapping distributions, it reflects that the state of the field has a lot of variance.

Another Council Special Panel member emphasized once again the HES recommendation that the Agency's pilot effort should be treated as a pilot and that the results shouldn't be given much weight. He saw the HES major recommendation was that the whole process be reviewed carefully before any high stakes elicitation be done. There will be a way to calibrate, based on seed questions asked in the pilot elicitation. We're so early in this process, we could lose experts' ability to participate, if the pilot results are not treated carefully. He also expressed agreement with Mr. DeMocker's comments regarding Charge Question 14. The Subcommittee could be clearer about what to do in the absence of expert judgment, and how to express uncertainty around the base case, uncertainty not expressed. The HES report uses the term "prudent" in ways that could be clearer.

Another Council member raised a question about the life-years calculation for PM mortality based on the cohort studies. She suggested that the Agency consider an approach similar to what the HES report is suggesting for estimating cessation lags. Just as likely ranges of cessation lags may be estimated by looking at what is known about different causes of death and how PM may be contributing to the disease processes and attempting to build some models/ranges of that process, ranges of life-years lost could be similarly estimated. Such an approach would "make more sense than picking some numbers" without reference to information available. Whether the Agency uses a static or dynamic life table, the assumption made in the life tables approach is that all the people whose deaths predicated on air pollution exposure have same underlying remaining life expectancy profile as the general population. That is the upper bound on life years lost due to PM because we suspect that some affected individuals have a reduced life expectancy due to pre-existing disease that was not caused by PM exposure and that this incidence of pre-existing disease is probably higher than in the general population. Thus, one should assume, consistent with the cessation lag estimates, that some share of the deaths are among people with lower than average life expectancy. The HES could recommend that the Agency use available information on causes of death and likely disease processes to propose a set of reasonable assumptions for both cessation lags and life-years saved that are consistent with one another..

Concerning expert elicitation, the Council chair expressed the concern that experts are a limited resource. Multiple elicitations may not be possible or may cause problems for the approach. Other Council members responded that it was possible to design elicitation with feedback

A Council Special Panel member suggested that such details were appropriate for the peer review of the expert elicitation results, and not for the review of the current document.

A Council member noted the HES recommendation that EPA not do the proposed alternative analysis. He asked whether this recommendation was included in the Council report. He noted the HES concern that the alternative analysis is biased downward, without upper bound case. He asked whether it was appropriate for the analysis to be renamed as a "lower bound," analysis even in the absence of an upper bound estimate

A Council Special Panel member responded with support for a point made by Dr. Lester Lave regarding differentiation of major and minor issues as they affect benefit estimation. For major factors that affect benefits estimation, it is desirable to have something like expert judgment, and if those are not available, to provide central estimates with bounds. He stated that he did not feel comfortable with lower or higher estimates without probability estimates.

The Council member then spoke of the utility of presenting two central elements in the analysis, use of time series rather than cohort data for PM, and life-year estimates not VSL. He suggested that "people opposed to air pollution estimates" would welcome plausible lower bounds. Dr. Ostro responded that the HES recommended that time series estimates are reported out and that skeptics on the high side would wish the Agency to use the Harvard 6-cities studies. He remained concerned about providing only a lower estimate, not both a high and low estimate.

A Council Special Panel member noted that "lots of other charge questions relate to this." The alternative analysis proposed by the Agency represented to him only one alternative case. It is not a lower bound because of all the uncertainties involved in the calculation. It will be necessary to look at all the related charge questions to come up with an approach for uncertainties.

The Chair then asked whether the Council Special Panel was ready to support finalizing the report with editorial changes and substantive changes made as identified by Drs. Ostro and Kuenzli. The suggestion was made to include the biosketches of consultants who participated in the HES review. The DFO agreed to include that information. A Council member expressed special concern for also revising language concerning life year estimates as discussed during the teleconference. She also expressed a wish to review the report language one more time.

The Chair then amended the proposed action; she asked the Council Special Panel whether it would support finalizing the document with the changes identified in the paragraph above and a review by email with a reasonable, but not too extended, time period for final

comments before the report was forwarded to the Administrator. All Council Special Panel Members supported this approach,

Discussion of and Preparation for the Council Special Panel Teleconference Call on December 22, 2003

The discussion then turned to the topic of the goals and process for the next teleconference call to discuss the Council's draft advisory. The panel members discussed the difficulty of reaching the stated goal of making a final decision on the draft report, given the short time period provided for review. The Council Special Panel agreed to focus the call on substantive issues associated with the draft report and determine during the call the need for further teleconferences or discussion.

The Chair concluded the meeting by thanking members for their participation. The teleconference was adjourned at 1:50 pm.

Respectfully Submitted:

/Signed/ Angela Nugent

Angela Nugent,
Designated Federal Official

Certified as True:

/Signed/ Trudy Cameron

Trudy Cameron
Chair

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by the Council members and consultants to the Agency during the course of deliberations within the meeting. Such ideas, suggestions and deliberations do not necessarily reflect definitive consensus advice from the Council. 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 reports prepared and transmitted to the EPA Administrator following the public meetings.

ATTACHMENTS

Attachment A	Roster of the Special Council Panel
Attachment B	Federal Register Notice
Attachment C	Meeting Agenda
Attachment D	Comments from Mr. James DeMocker,
Attachment E	Discussant Comments

Attachment A - Roster

**U.S. Environmental Protection Agency
Science Advisory Board
Advisory Council on Clean Air Compliance Analysis
Special Council Panel for the Review of the Third 812 Analysis***

CHAIR

Dr. Trudy Cameron, Raymond F. Mikesell Professor of Environmental and Resource Economics, Department of Economics, University of Oregon, Eugene, OR
Also Member: Executive Committee

MEMBERS

Dr. David T. Allen, The Henry Beckman Professor in Chemical Engineering, Department of Chemical Engineering, University of Texas , Austin, TX

Ms. Lauraine Chestnut, Manager, Stratus Consulting Inc, Boulder , CO

Dr. Lawrence Goulder, Associate Professor, Department of Economics & Institute for International Studies, Stanford University, Stanford, CA
Also Member: Environmental Economics Advisory Committee

Dr. James Hammitt, Professor of Economics and Decision Sciences, Department of Health Policy and Management, School of Public Health, Harvard University, Boston, MA

Dr. F. Reed Johnson, Principal Economist and RTI Fellow, RTI Health Solutions, Research Triangle Institute, Research Triangle Park, NC

Dr. Charles Kolstad, Professor, Department of Economics, Bren School of Environmental Science and Management, University of California, Santa Barbara, CA

Dr. Lester B. Lave, Professor, Graduate School of Industrial Administration, Carnegie Mellon University, Pittsburgh, PA

Dr. Virginia McConnell, Senior Fellow; Professor of Economics, Resources for the Future, Washington, DC

Dr. Bart Ostro, Chief, Air Pollution Epidemiology Unit, California Office of Environmental

Health Hazard Assessment (OEHHA), Oakland, CA

Dr. V. Kerry Smith, University Distinguished Professor, Department of Agricultural and Resource Economics, College of Agriculture and Life Sciences, North Carolina State University, Raleigh, NC

OTHER SAB MEMBERS

Dr. Dale Hattis, Research Professor, Center for Technology, Environment, and Development, Marsh Institute, Clark University, Worcester, MA
Member: Environmental Health Committee

CONSULTANTS

Dr. John Evans, Senior Lecturer on Environmental Science, Harvard University, Portsmouth, NH

Dr. D. Warner North, President, NorthWorks Inc, Belmont, CA

Dr. Thomas S Wallsten, Professor, Department of Psychology , University of Maryland, College Park, MD

SCIENCE ADVISORY BOARD STAFF

Dr. Angela Nugent, Designated Federal Officer, 1200 Pennsylvania Avenue, NW, Washington, DC, Phone: 202-564-4562, Fax: 202-501-0323, (nugent.angela@epa.gov)

* Members of this SAB Panel consist of

a. SAB Members: Experts appointed by the Administrator to serve on one of the SAB Standing Committees.

b. SAB Consultants: Experts appointed by the SAB Staff Director to a one-year term to serve on ad hoc Panels formed to address a particular issue.

Attachment B - Federal Register Notice

Science Advisory Board Staff Office; Notification of Multiple Upcoming Meetings

[Federal Register: November 25, 2003 (Volume 68, Number 227)]

[Notices]

[Page 66095-66096]

From the Federal Register Online via GPO Access [wais.access.gpo.gov]

[DOCID:fr25no03-67]

ENVIRONMENTAL PROTECTION AGENCY

[FRL-7591-6]

Science Advisory Board Staff Office; Notification of Multiple
Upcoming Meetings

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The EPA Science Advisory Board (SAB) Staff Office announces
upcoming multiple meetings of the:

- (1) SAB Drinking Water Committee: Face to face meeting.
- (2) SAB Cross-Agency Science and Technology Budget Review: Face to
face meeting.
- (3) Joint meeting of the SAB Environmental Health Committee, and
the Integrated Health and Exposure Committee: Face to Face Meeting.
- (4) The Advisory Council on Clean Air Compliance Analysis Special
Council Panel for the Review of the Third 812 Analysis (Council Special
Panel): Public teleconferences.
- (5) The SAB Committee on Valuing the Protection of Ecological
Systems and Services: Public teleconference.

DATES: December 3, 2003: The SAB Committee on Valuing the Protection of
Ecological Systems and Services will hold a public teleconference from
1 p.m. to 2:30 p.m. (EST).

December 10, 2003: The SAB Drinking Water Committee will hold a
face-to-face meeting from 9 a.m. to 12:30 p.m. (EST).

December 10, 2003: The first of a series of public face-to-face
meetings of the SAB Cross-Agency Science and Technology Budget Review
will be held from 12:30 p.m. to 5:30 p.m. (EST).

December 12, 2003: A joint public face-to-face meeting of the SAB Environmental Health Committee, and the Integrated Health and Exposure Committee will be held from 9 a.m. to 12:30 p.m. (EST).

December 19, 2003 and December 22, 2003: The Advisory Council on Clean Air Compliance Analysis Special Council Panel for the Review of the Third 812 Analysis (Council Special Panel) will hold a public teleconference from 12 p.m. to 2 p.m. (EST) both days.

ADDRESSES: Face to Face Meetings: The meeting location for the face to face meetings of the SAB Drinking Water Committee, SAB Cross-Agency Science and Technology Budget Review, SAB Environmental Health Committee, and the Integrated Health and Exposure Committee, is the Washington, DC. Metropolitan area. The specific meeting locations and agendas will be announced on the SAB Web site, <http://www.epa.gov/sab> ten calendar days prior to the meetings.

Public teleconferences: Participation in the teleconference meetings will be by teleconference only. The agendas will be announced on the SAB Web site, <http://www.epa.gov/sab> ten calendar days prior to the teleconferences.

FOR FURTHER INFORMATION CONTACT: To reach a central number at the EPA SAB Staff Office, please call via telephone (202) 564-4533, U.S. EPA Science Advisory Board (1400A), 1200 Pennsylvania Avenue, NW., Washington, DC 20460. General information about the SAB can be found in the SAB Web site at <http://www.epa.gov/sab>.

Members of the public who wish to obtain the call in number and access code to participate in the teleconferences of the Council Special Panel, or the SAB Committee on Valuing the Protection of Ecological Systems, may contact Dr. Angela Nugent, Designated Federal Officer (DFO), via telephone, (202) 564-4562; or via e-mail at nugent.angela@epa.gov.

Any member of the public wishing further information regarding the face to face meetings of the SAB Drinking Water Committee, please contact Dr. James N. Rowe, DFO, via telephone (202) 564-6488; or via e-mail at rowe.james@epa.gov. For information regarding the SAB Cross-Agency Science and Technology Budget Review, please contact Mr. Thomas Miller, DFO, via telephone, (202) 564-4558; or via e-mail at miller.tom@epa.gov. For information regarding the SAB Environmental Health Committee, and the Integrated Health and Exposure Committee, please contact Dr. Suhair Shallal, DFO, via telephone (202) 564-4566; or via e-mail at shallal.suhair@epa.gov.

SUPPLEMENTARY INFORMATION:

Drinking Water Committee

The SAB Drinking Water Committee will be meeting with the Office of Water (OW) and the Office of Research and Development (ORD) on December 10, 2003, to receive informational briefings. OW will make presentations on (1) their overall process for implementing the regulatory and risk assessment program for the Safe Drinking Water Act (SDWA), and (2) discussion of the intersection between the Clean Water Act (CWA) and SDWA with regards to preserving and restoring drinking water sources. An overview of ORD's Multi-Year Plan (MYP) for drinking water research will be presented. The briefings will set the stage for a formal review of the Drinking Water MYP and consultations on CWA/SDWA interactions on drinking water sources during the spring and summer of FY 2004.

Science Advisory Board Cross-Agency Science and Technology Budget Review

The Board of the SAB will review EPA's cross agency science and technology budget for 2005.

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Collectively, Board members have broad expertise in all aspects of environmental sciences and their expertise is appropriate to addressing EPA's charge. Further, these SAB members have been appointed by the Administrator, to provide advice on broad issues of research planning, budgeting, and management as well as a variety of specific scientific and technical issues.

The Board will hold a series of meetings that will be used to receive briefings on the content of EPA's science and technology programs across the Agency and to review the EPA FY 2005 science and technology budget itself. The briefing meetings will begin on December 10, 2003, and continue into January 2004. During February, the SAB will meet and deliberate on the Agency's FY 2005 science and technology budget. Some meetings will be conducted as face to face meetings of the participants while others will be conducted by telephone conference. All meetings will be open to the public, however, seating is limited and available on a first come basis.

The purpose of this meeting is to: (1) Receive presentations from EPA representatives on the science and technology programs conducted in support of two of EPA's strategic Goal areas, Goal 1 (Clean Air and Global Climate Change) and Goal 2 (Clean and Safe Water), (2) to discuss these programs with Agency representatives and to clarify

specific points of interest raised by the Panelists; (3) to make and discuss Panel assignments for the review; and (4) to receive public comments if any are offered.

At a face to face meeting in February 2004, the Board will review the science and technology components of the EPA Fiscal Year 2005 Budget Request and prepare a report to the EPA Administrator on their findings and recommendations.

Environmental Health Committee, and the Integrated Human Exposure Committee

The Environmental Health Committee, and the Integrated Human Exposure Committee will hold a joint meeting to receive informational briefings from various offices within EPA concerning ongoing initiatives for improving risk assessment methodologies. This information will serve as background for upcoming reviews that Environmental Health Committee and the Integrated Human Exposure Committee will participate in during FY 2004.

The Advisory Council on Clean Air Compliance Analysis Special Council Panel for the Review of the Third 812 Analysis (Council Special Panel)

The Council Special Panel will hold a public teleconference call, as described above, to advise the Agency on its plan to develop the third in a series of statutorily mandated comprehensive analyses of the total costs and benefits of programs implemented pursuant to the Clean Air Act. Background on the Council Special Panel and this advisory project was provided in a Federal Register notice published on February 14, 2003 (68 FR 7531-7534).

The public teleconference on December 19, 2003, described above, is planned for the Council Special Panel to review and act on a draft report entitled "Advisory on Plans for Health Effects Analysis in the Analytical Plan for EPA's Second Prospective Analysis--Benefits and Costs of the Clean Air Act, 1990-2020," developed by the Council's Health Effects Subcommittee.

The public teleconference on December 22, 2003, described above, is planned for the Council Special Panel to review and act on a draft report finalizing an Advisory related to the Council Special Panel's review of the Revised Analytical Plan for EPA's Second Prospective Analysis.

Both draft reports identified above will be posted on the SAB Web site as a draft report (consult the following page: <http://www.epa.gov/science1/drrep.htm>).

SAB Committee on Valuing the Protection of Ecological Systems and Services

The SAB Committee on Valuing the Protection of Ecological Systems and Services will hold a public meeting, as described above, to plan its future work, including a public advisory meeting tentatively planned for January 20-22, 2004.

Background on the Committee and its charge was provided in a Federal Register notice published on March 7, 2003 (68 FR 11082-11084). The overall charge to the Committee is to assess Agency needs and the state of the art and science of valuing protection of ecological systems and services, and then to identify key areas for improving knowledge, methodologies, practice, and research.

Procedures for Providing Public Comment. It is the policy of the EPA SAB Staff Office to accept written public comments of any length, and to accommodate oral public comments whenever possible. The EPA SAB Staff Office expects that public statements presented at the meetings described above will not be repetitive of previously submitted oral or written statements. **Oral Comments:** In general, each individual or group requesting an oral presentation at a face to face meeting will be limited to a total time of ten minutes (unless otherwise indicated). For teleconference meetings, opportunities for oral comment will usually be limited to no more than three minutes per speaker and no more than fifteen minutes total. Interested parties should contact the DFO in writing (e-mail, fax or mail) at least one week prior to the meeting in order to be placed on the public speaker list for the meeting. Speakers should bring at least 35 copies of their comments and presentation slides for distribution to the participants and public at the meeting. **Written Comments:** Although written comments are accepted until the date of the meeting (unless otherwise stated), written comments should be received in the SAB Staff Office at least one week prior to the meeting date so that the comments may be made available to the committee for their consideration. Comments should be supplied to the DFO at the address/contact information noted above in the following formats: One hard copy with original signature, and one electronic copy via e-mail (acceptable file format: Adobe Acrobat, WordPerfect, Word, or Rich Text files (in IBM-PC/Windows 95/98 format)). Those providing written comments and who attend the meeting are also asked to bring 35 copies of their comments for public distribution.

Meeting Accommodations: Individuals requiring special accommodation to access these meetings, should contact the SAB Staff Office, at least five business days prior to the meeting so that appropriate arrangements can be made. Meeting space is limited and on a first-come first-served basis.

Dated: November 20, 2003.
Anthony F. Maciorowski,
Acting Associate Director, EPA Science Advisory Board Staff Office.
[FR Doc. 03-29431 Filed 11-24-03; 8:45 am]

Attachment C - Agenda

U.S. EPA Advisory Council on Clean Air Compliance Analysis Special Council Panel for the Review of the Third 812 Analysis Advisory Teleconference December 19, 12:00-2:00 Eastern time

Purpose of Meeting: (1) to review and act on a draft report from the Council's Health Effects Subcommittee; and (2) to plan for the Special Council Teleconference on December 22, 2003.

12:00-12:05	Opening of Meeting and Roll Call	Dr. Angela Nugent, Designated Federal Officer, SAB Staff Office
12:05-12:10	Welcome, Agenda Review	Dr. Trudy Cameron, Chair
12:10-12:25	Brief Introduction to the draft report	Dr. Bart Ostro, Chair, Health Effects Subcommittee Dr. Nino Kuenzli, Lead for Charge Question 29
12:25-12:45	Comments from Lead Discussants	
12:45-1:30	Discussion and Decision to Accept the report to send to the EPA Administrator	Council Special Panel
1:30-1:45	Preparation for December 22, 2003 Council Special Panel Teleconference	Dr. Trudy Cameron
1:45	Adjournment of Meeting	

Attachment D
Comments from Mr. James DeMocker

EPA Project Team Technical/Factual Comments on Draft "Advisory on Plans for Effects Analysis Presented in the May 12, 2003 Analytical Plan for EPA's Second Prospective Analysis..." EPA-SAB-COUNCIL-ADV-03-00x

Cover memo: Suggest consistent capitalization of COUNCIL (i.e., all-caps or initial caps).

Cover letter page ii, line 14: Draft letter says "pilot study methods and results" should be peer reviewed, as does text in Executive Summary on page 5, line 22. However, text in main report on page 36, lines 12-13 says process but not results should be subject to peer review. Suggest clarifying which is the intended advice.

Cover letter page ii, line 25: Change "boundss" to "bounds."

Page 5, lines 30-31: Suggest changing "(preferably confidence intervals of 90% and 10%)" to something like "(preferably with a confidence interval of 10 to 90 percent)" to avoid potential confusion that HES might be suggesting a 10% confidence interval as well as a 90% one.

Page 5, line 36: Change colon after "ozone effects" to a semi-colon.

Page 7, line 6: Delete "emissions inventories" (apparent artifact of clipping text from AQMS report?).

Page 8, bullets: Suggest consistent indentation of bullets.

Page 11, line 26: Delete "gg" at end of first sentence.

Page 14, line 8: Unclear what HES means by "the benefit derived for restricted-activity days may partly or fully include the asthma exacerbation." Does HES mean to imply available economic valuation estimates for RADs would capture all relevant benefit components of asthma exacerbation, including cost-of-illness, pain and suffering, etc?

Page 14, line 31: Insert space between "First" and "Prospective."

Page 16, line 6: Suggest inserting "studies" between "Lippman et al. 2000" and "of PM2.5."

Page 16, line 24: Insert period at end of paragraph.

Page 18, line 18: Unclear what is meant by "targeted in portions of draft." Does HES mean "portions of the draft blueprint" (or plan?).

Page 22, line 9: Change "death" to "deaths."

Page 23-24 and page 30: There appears to be inconsistency between the advice conveyed pertaining to estimation of lost life-years for the cohort studies in the responses to charge questions 14 and 17. On pp 23-24 the draft advisory leans toward a dynamic life table approach (see esp top of page 24) whereas text on page 30, lines 34-38 suggests using either information

from cohort study authors or, if that is unavailable, sticking with the static life tables approach used in the previous 812 analysis. Suggest clarifying which is the intended advice.

Page 25, line 6: Add close parenthesis at end of paragraph.

Page 27, line 42: Delete "to" between "Agency" and "derive."

Page 28, lines 22-36: The advice pertaining to the cessation lag remains unclear to the Project Team. The draft advisory appears to recommend modeling cessation lag for individual causes of death, but then recommends use of a three-segment Weibull or uniform distribution for acute (0-6 months), short-term (2 to 5 years) and long-term (15-25 years) exposure periods. If the time periods bracketing each segment represent exposure time and not the cessation lag itself, do the lag estimates come from the modeling for specific causes of death? Some clarification would be useful regarding whether there is any literature base which might suggest these periods. Relative to the previous draft advisory, it seems clearer that the panel doesn't consider these periods to be lag estimates, but it is difficult to determine where to start in the modeling they suggest, and also to determine why the brackets omit exposure periods between 6 months and two years and between 5 and 15 years.

Page 32, bullets: Suggest cleaning up hanging indents to improve readability.

Page 36, line 44: Suggest adding "particulate" between "measures of" and "blackness."

Page 38, lines 23-24: Suggesting revising last sentence to instead read: "This may be superior to assessing uncertainty by comparing results obtained using different analytical methodologies." to improve readability.

Page 38, line 27: Add hyphen between "source" and "specific" as in other manifestations of "source-specific."

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Attachment E

Discussant Comments

From Dr. Lester Lave

1. It is important for EPA to focus on the areas that make the most difference to its estimated total benefits. This is a focus on the policy issues. EPA should also improve the scientific issues, but not give first preference to scientific issues where the estimated benefits are small.
2. In particular, mortality dominates the benefits estimate and so each category of benefits needs to be examined carefully. In contrast, morbidity is less important. While focusing on mortality, it is important EPA at least have confident bounds on other issues, such as morbidity, visibility, smell, ecology, etc.
3. EPA's focus is on premature death. The Council discussed and rejected the proposal to estimate QALYs. However, I am bothered by the notion that a healthy baby killed by air pollution is treated the same as an 85 year old who is killed by air pollution. They have very different life expectancies. It would certainly be helpful if EPA estimated life-years lost as well as premature deaths.
4. The Council has long urged EPA to disaggregate the benefits and costs to a level that informs policy decisions, e.g., stationary vs. mobile sources or SO₂ and PM vs. ozone precursors. I understood Rob Brenner to say that EPA was now committed to doing this. It is important for HES to continue to urge EPA to separate the effects of pollutants to the extent possible.
5. In the last 812 study, the contribution of ozone precursors to PM_{2.5} was not calculated. That is important to do this time.
6. The last of the really important issues is the toxic air pollutants. The HES comments on benzene are good. HES and the Council need to yet again urge EPA to find ways to examine the health effects of all the toxic pollutants to inform policy concerning new controls.
7. p10, first full paragraph: identifying sources is important - EPA should be encouraged to do more of this in future studies.
8. P10, bottom: this is the point about wanting life-years as well as premature deaths.

9. Expert elicitation: This is needed and valuable, but will certainly be a focus of criticism. The HES discussion is a good one. One issue is whether the study design should be one with feedback. I urge this on the grounds that EPA gets the untainted data from the first round and then the data after people see other opinions on the second round. I am particularly worried about the bias toward overconfidence of experts. At the very least, experts should be "trained" in this. Actually, a feed back (multi-round) design should produce a product that would look better to reviewers and policy makers - e.g., no non-overlapping distributions.

The HES did a great job and are to be commended. I don't need to see a revision and give my approval to the document as it stands or with some minor revisions.

From Dr. Virginia McConnell:

1) I think it is important to make clear that the uncertainty included in the range of estimates of benefits for the base case reflect only some of the overall uncertainty about these estimates. There are many assumptions that underlie these base case estimates – such assumptions should be clearly spelled out. What are the most important assumptions (in terms of their overall effect on benefits) about which we have little or no information about probability distributions? The PM mortality case is clearly one such case, and the expert elicitation is likely to provide some evidence for the uncertainty analysis. Are there other assumptions that are particularly important?

2) On the Pilot Study - Expert elicitation for Premature Mortality from PM 2.5 exposure. The report states that there should be no weighting of the results from time series and cohort studies. But, will the experts be asked about their perception of what each type of study measures, and the value of each approach. Bart Ostro confirmed on the call of 12/19/03 that these issues are being addressed in the elicitation.

3) It seems an extreme assumption to make that people with COPD have the same life expectancy as people without such disease (page 30 bottom paragraph). Therefore, estimates of mortality from exposure to PM result in life years lost that is similar to the population as a whole. I would think there was some better evidence about this issue. In general, these assumptions seem likely to be important to the final results – and I think they need to be better considered and explained. I think Laurie Chestnut also had some further, more detailed comments on this issue.

More minor editorial comments. My suggested changes are in italics.

- 1) In the letter to Governor Leavitt: On page ii, line 9for improving uncertainty *analysis about mortality from PM exposure* (should make clear what issue the expert judgment is being used for).
- 2) Executive Summary, line 20.mortality effects *from PM 2.5 exposure* ...
- 3) Page 29. line 2, line 11 – should it say something about exposure to what or C-R for what? (PM...etc.)
- 4) Page 31. line 1, line 10. 17.d.1.,2.,3. instead of 17.d. i.,ii.,iii.
- 5) Page 32. line 35. was based *on* a review ..
- 6) Page 33. line 29-30. What are the disaggregated questions? Such as...?
Page 34, line 41. ...believes that *the* small....