

# U.S. Environmental Protection Agency Office of Research and Development

## BOARD OF SCIENTIFIC COUNSELORS EXECUTIVE COMMITTEE MEETING

Washington, DC  
January 27-28, 1998

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### Welcome and Introduction

Costel Denson (University of Delaware), Chair of the Executive Committee of the Board of Scientific Counselors (BOSC), welcomed the BOSC Executive Committee members and encouraged participation in meeting discussions. Dr. Denson reminded the Executive Committee that the primary objective of the meeting is to discuss the draft peer-review documents prepared by the BOSC *Ad Hoc* Subcommittees. These Subcommittees conducted reviews of five Office of Research and Development (ORD) Centers/Laboratories, including: (1) the National Exposure Research Laboratory (NERL); (2) the National Health and Environmental Effects Research Laboratory (NHEERL); (3) the National Risk Management Research Laboratory (NRMRL); (4) the National Center for Environmental Assessment (NCEA); and (5) the National Center for Environmental Research and Quality Assurance (NCERQA). Each review was based on a self-study prepared by the Laboratory or Center and a 2-day site visit to the Laboratory/Center. Each self-study was prepared in response to questions provided by the BOSC. During the site visit, the Subcommittee toured the facility and conversed with Laboratory/Center personnel. Dr. Denson noted that although the Executive Committee will discuss each review, there will be opportunity for public comment. He asked that all public comment be held until the time allotted for public comments. A motion was unanimously passed by the Executive Committee to approve the minutes of the June 9-10, 1997 BOSC Executive Committee Meeting.

Dr. Denson welcomed Henry Longest II (EPA), Acting Assistant Administrator for Research and Development (EPA); Donald Barnes (EPA), Executive Director, Science Advisory Board; Joseph Alexander (EPA), Deputy Assistant Administrator for Science, ORD; and Peter Preuss (EPA), Director of NCERQA, each of whom will make presentations to the Executive Committee during today's meeting.

### Overview of the Office of Research and Development

Mr. Longest provided an overview of the state of ORD, and also thanked the Executive Committee members, on behalf of the Laboratories and Centers, for their efforts. Mr. Longest identified a number of 1997/1998 ORD highlights, including:

- Government Performance and Results Act (GPRA) used as the framework for Agency and ORD strategic planning.
- The Science to Achieve Results (STAR) Program approached its steady-state funding level of approximately \$100 million per year.
- The BOSC conducted a peer review of ORD's three national Laboratories and two national Centers.
- Several research strategies and plans were peer reviewed, including those for particulate matter, microbial pathogens and disinfection byproducts, endocrine disruptors, and arsenic.

Mr. Longest also provided a framework for the FY97 enacted ORD budget and the operating plan for the FY98 ORD budget, as depicted in the table below.

<b>Budget Components</b>	<b>FY97 Enacted Budget (\$M)</b>	<b>Operating Plan FY98 Budget (\$M)</b>
STAR Program	95.0	98.5
Congressional Earmarks	21.0	0.0 <sup>†</sup>
Operation Expenses and WCF	81.0	80.3
Workforce	143.0	140.8
Research	164.0	250.9
<b>Total</b>	<b>504 (1,934 FTEs)</b>	<b>570<sup>‡</sup> (1,927 FTEs)</b>

† The budgeted level of funding for the 23 congressional earmarks is approximately \$70M; funding for the earmarks will be taken from the research program. The level of funding for earmarks is higher than any previous year; \$23M has been set aside for a single earmark.

‡ Includes Superfund activities (\$35M), whereas FY97 total funding level does not.

Mr. Longest noted that the funding for earmarks is not added to the budget, rather the funding levels for other areas are reduced. In response to an Executive Committee member’s question, he clarified that Congress establishes the level of funding for the earmarks as well as the total level of funding for ORD; it is at the discretion of ORD to partition the funding within the Office. An Executive Committee member mentioned that a number of the Laboratories/Centers indicated that their human resources were insufficient, and asked how this issue will be addressed. Mr. Longest responded that full-time equivalent (FTE) inequities among the Laboratories and Centers will be addressed by the redistribution of FTEs in most situations.

**STAR Program.** Mr. Longest indicated that ORD is continually evaluating the relationship of STAR Program Requests for Applications (RFAs) to ORD’s Strategic Plan priorities to ensure that the RFAs are tailored to meet ORD priorities. Brian Leaderer (Yale University) asked if ORD priorities are being met through the STAR Program. Dr. Preuss responded that research plans are prepared prior to the development of an RFA. The research plans provide a mechanism for those responding to an RFA to be aware of the overall purpose of that RFA within the larger context of ORD research. Steps such as these help to ensure that the research performed under a grant remains in line with ORD research priorities. William Cooper (Michigan State University) suggested that there should be more interaction among EPA researchers and STAR awardees. Mr. Longest agreed that interaction is valuable, both to the EPA researcher and to the awardee, but noted that a level of separation must be maintained. He added that Dr. Preuss will discuss permissible interactions between EPA researchers and awardees later in today’s meeting. Dr. Denson commented that EPA has developed a number of STAR reports, and he found these to be very informative—Dr. Preuss agreed to provide copies of the STAR reports to the members of the Executive Committee.

**Activities of the Science Advisory Board**

Dr. Denson commented that he was invited by Dr. Joan Daisey, Director of the SAB, to participate in SAB activities. He accepted this invitation and has already participated in a number of SAB events, including a recent SAB retreat. Dr. Denson expressed his belief that the retreat established a positive relationship between the BOSC and the SAB. He added that such a relationship will be mutually beneficial because both Boards have target audiences within EPA. Dr. Denson emphasized the importance of maintaining a strong relationship between the two groups. In addition, he reciprocated Dr. Daisey’s offer, and asked her to participate in BOSC activities. Dr. Barnes conveyed Dr. Daisey’s regrets that she was unable to attend today’s meeting due to prior commitments, but she looks forward to participating

in future BOSC activities. Dr. Barnes noted that the SAB retreat, referenced by Dr. Denson, enabled SAB members to consider past, present, and future activities/goals of the SAB. The short-term (next 3-5 years) objectives of the SAB are to:

- Maintain and improve the quality of peer review.
- Provide more strategic advice.
- Identify science activities in new EPA initiatives.

Dr. Barnes indicated that the SAB intends to improve SAB-wide operations by improving timeliness, project selection, Agency feedback, communications, orientation of new members and new chairs, interactions with other Federal Advisory Committee Act (FACA) committees, and other agencies. As mentioned earlier, the BOSC and the SAB provide similar functions. In simple terms, the SAB is concerned with what areas of science should be pursued, whereas the BOSC is concerned with research efforts in those areas of science. Dr. Denson believes that there is potential overlap between the efforts of the SAB and the BOSC, and he reminded the Executive Committee that the interaction of the SAB and the BOSC will be discussed later in today's meeting. The Executive Committee and Dr. Barnes agreed that open communication between the BOSC and the SAB is necessary.

### **BOSC: Science Issues and Directions**

Mr. Alexander discussed the following three issues: (1) the purpose of the BOSC, (2) interaction between the BOSC and the SAB, and (3) the proposed agenda for the BOSC for the upcoming year.

**Purpose of BOSC/Interaction Between BOSC and SAB.** The BOSC charter established a group of senior advisors whose purpose is to provide peer evaluation of ongoing programs and advice regarding the use of peer review in ORD. The primary audience of the BOSC is the AA/ORD, while the SAB's principal audience is the EPA Administrator. Mr. Alexander noted that the BOSC interacts with other ORD officials to accomplish its objectives. The SAB provides a perspective to determine if EPA is pursuing the "right" science; the BOSC provides a perspective to determine if EPA is performing the science "right," including ORD's performance as an organization, current managerial practices, and organizational structure. In response to an Executive Committee member's question, Mr. Alexander replied that the BOSC can influence EPA research priorities and is welcome to provide input; however, he added that it would be more appropriate for the BOSC to focus on how the priorities are executed. Rae Zimmerman (New York University) commented that it would be beneficial for the BOSC to assist in the determination of priorities. Although Michael Kavanaugh (Malcolm Pirnie) agreed that BOSC input to ORD research priorities may be beneficial, he questioned if it was the best use of the BOSC's limited resources. An Executive Committee member cautioned that many priorities are determined by political mandates and pointed out that the BOSC may not want to expend significant resources in this area.

**Proposed BOSC Agenda for the Upcoming Year.** Mr. Alexander provided the Executive Committee with a proposal suggesting future directions for the BOSC. He asked the Executive Committee to consider the document and to provide feedback to ORD. Raymond Loehr (University of Texas at Austin) encouraged the Executive Committee to consider paragraph 3.3 of the proposal, which states that "the AA/ORD and five directors would find it useful to be able to turn to the BOSC for substantive discussion in areas such as how to define a research program that looks at issues just 'coming over the horizon.'" Dr. Loehr noted that such involvement would enable ORD's research programs to be more proactive, which is very desirable. Dr. Preuss indicated that EPA has drafted an RFA to address this issue and he agreed to provide it to the Executive Committee for review. He cautioned, however, that it can be difficult to distinguish between new, novel concepts and impractical ideas. One Executive Committee member supported ORD's suggestion to form standing committees to advise the Laboratories and Centers. At a minimum, the Executive Committee agreed to follow up with the Laboratories and Centers once they have had an opportunity to implement the recommendations in the BOSC reviews.

## **ORD Guidance on the Interaction Between Researchers and EPA Grant Applicants/Recipients**

Dr. Preuss provided an overview of ORD Policy Transmittal #98-P-2, which provides ORD guidance on the interaction between Agency researchers and EPA grant applicants/recipients. The policy encourages scientific interaction between ORD researchers and other researchers, such as EPA grant awardees; however, federal regulations prescribe actions to ensure proper administration of assistance awards—only certain activities are permitted under grants and/or cooperative agreements, subject to a “substantial involvement” test. Dr. Preuss indicated that the following general guidance is provided to ORD researchers:

- Avoid conflicts of interest regarding involvement in solicitation, review, or selection of applications for awards.
- Ensure fair opportunities for all potential interactions consistent with ORD mission, relevance, and ORD availability and interest.
- An ORD researcher may never act as an agent on behalf of a grantee regarding the grant.
- Interaction may not be used to redirect grant funds to an ORD Laboratory or to bypass ORD budgeting or strategic planning.
- An ORD researcher may not direct an applicant or recipient regarding project objectives, approaches, personnel, milestones, or outputs.

Substantial involvement, which is defined as cooperation with a recipient at a level necessary for the recipient to achieve the basic goals of the project, is permitted under a cooperative agreement but not under a grant. In response to an Executive Committee member’s question, Dr. Preuss replied that some STAR grants are more correctly termed cooperative agreements. He noted that applications for grants and cooperative agreement are peer reviewed in the same manner. Dr. Preuss also pointed out that funding is provided in a similar fashion for both grants and cooperative agreements; however, funding for cooperative agreements is no longer reviewed/renewed on a yearly basis but is provided for the project period of performance. Dr. Preuss indicated that a cooperative agreement must be in place in order for an EPA researcher to be a Co-Principal Investigator; an EPA researcher may not be a Co-Principal Investigator on a STAR award. An EPA researcher may either seek funding from the Laboratory or must seek an outside collaborator, but cannot directly apply for a grant or cooperative agreement. Dr. Preuss mentioned that pilots have been enacted over the past several years to expand the options of an EPA researcher seeking funding and the pilots have resulted in varied success. Incidental interaction is permitted under a grant, and examples of interactions permitted under a grant include:

- Providing information to an applicant for use in an application; however, preparation of an application is the sole responsibility of the applicant.
- Collecting data or samples at the same site as the grantee.<sup>†</sup>
- Sharing or comparing samples, equipment, facilities, data, or models.<sup>†</sup>
- Discussing scientific aspects or research under the grant.<sup>†</sup>
- Participating with grantee(s) at professional society meetings, symposia, workshops, etc.<sup>†</sup>
- Co-authoring abstracts, papers, etc., (with adherence to ORD peer-review policies).<sup>†</sup>

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<sup>†</sup> Such interaction must be incidental to achieving the research goals of the grant.

Jerald Schnoor (University of Iowa) asked if the individuals who develop an RFA can apply for a grant under that RFA, in effect receiving advance notice of the content of an RFA. Dr. Preuss responded that such a scenario would be considered a conflict of interest. In response to a question, Dr. Preuss replied that approximately 90 percent of the ORD budget is allocated to research and development, although he noted that this percentage varies depending upon the definition of “research and development.”

### **Path Forward to Finalize Reports**

Dr. Denson suggested the following path forward to finalize the five draft review reports:

- Revisions to all reports will be made on the hardcopies and provided to Ginni Boyd (SCG), who will make the revisions to the electronic files.
- After discussion of each report, the Executive Committee will vote to grant provisional acceptance of the report.
- Contingent upon conditional approval, a two person *ad hoc* committee will review the revised report to ensure that it adequately reflects the suggestions of the Executive Committee. It is not necessary for a report to be returned to the Subcommittee once the *ad hoc* committee has reviewed it.
- Dr. Denson will prepare a transmittal letter addressed to the AA/ORD for each report once provisional acceptance has been granted.

Dr. Denson also will prepare a transmittal letter for the summary report, and he asked that Executive Committee members identify three to five issues to be included in the summary report. Dr. Denson expects that questions will be received once the reports are finalized and distributed; he asked that Executive Committee members direct all questions to him. Dr. Denson has prepared a preface, based on the BOSC’s operating principles, which will be included in each report. He asked Executive Committee members to review the preface and ensure that the introduction of each report is consistent with the preface. Copies of each final report will be prepared and provided to Dr. Denson. The Chairs and Vice-Chairs of the *Ad Hoc* Subcommittees, and the members of the *ad hoc* committees reviewing the reports, will receive a copy of their respective report. The Executive Committee agreed to this path forward outlined by Dr. Denson.

One Executive Committee member expressed some concern about including the Laboratory/Center self-study reports in the BOSC review reports. The self-study reports were prepared in a short timeframe, and the Subcommittee did not make it clear to the Laboratories/Centers that these self-study reports would be included when they were asked to prepare them. Dr. Leaderer responded that the self-study reports are a valuable reference and should be included in the reports as an appendix. Mitchell Small (Carnegie-Mellon University) suggested that each Subcommittee determine whether the self-study report should be included in their respective report. Consensus on this issue could not be reached and it was tabled for future discussion. Dr. Denson indicated that the issue would be revisited later in the meeting. The Executive Committee agreed to include organization charts in each report as well as the staffing on the organization chart at the time of the review.

### **Review of the National Exposure Research Laboratory Draft Report**

Dr. Cooper, Chair of the NERL *Ad Hoc* Subcommittee, and Dr. Schnoor, Vice-Chair of the Subcommittee, initiated a discussion of the draft NERL report. Dr. Cooper indicated that all suggested modifications will be considered, but will be balanced against the thoughts of the Subcommittee, including the three non-BOSC members of the Subcommittee. Because the non-BOSC Subcommittee members were unable to attend the meeting, Dr. Cooper and Dr. Schnoor will represent them. They expressed the Subcommittee’s belief that NERL thoughtfully prepared its self-study report and held open discussions with the Subcommittee members during the site visit. Minor editing has been made to the draft report based on: (1) Executive Committee suggestions made during the January 5, 1998, BOSC Executive Committee Conference Call, and (2) comments received from ORD. Dr. Denson explained that he provided ORD with copies of each draft report for review purposes, and asked that ORD concentrate their comments on those

of factual error. Dr. Cooper provided an overview of each general observation and recommendation— comments of the Executive Committee are provided below for only those observations/recommendations that were discussed at length.

**General Observation 1:** ORD suggested removing references to specific numbers, and instead refer to a “substantial” reduction in NERL personnel. ORD indicated that the use of specific numbers could cause confusion if the method of calculation is not fully understood. Dr. Cooper responded that he believes the referenced numbers are accurate and that the impact of the observation is diminished by use of generic terms such as “substantial.” It was suggested that the source of the numbers be noted in the report to address the concerns of ORD.

**General Observation 3:** Dr. Loehr suggested that the recommendation be modified to more clearly illustrate that less than one-half of NERL’s employees are research scientists. Dr. Cooper agreed to appropriately modify the recommendation.

**General Observation 4:** It was suggested that a footnote be added to the report to indicate that a change in EPA policy addresses this observation. It also was suggested to modify the fourth sentence to read, “NERL scientists believe that they cannot actively participate in these research programs.” Mr. Longest clarified that, at the time of the review, NERL scientists may have been under the impression that they could not participate, when in fact, they were/are permitted to do so.

Dr. Cooper indicated that NERL management appeared committed to implementing Dr. Robert Huggett’s, the former AA/ORD, policy changes, but the bench-top scientists seemed less interested in implementing the changes. The bench-top scientists indicated that policies change often; therefore, their commitment to implementing Dr. Huggett’s changes was nonsensical. This theme was apparent, to some degree, at all of the Laboratories and Centers. The Executive Committee believes that the bench-top scientist may not be aware of the rationale for policy changes—understanding the rationale may increase their commitment to policy implementation. The Subcommittee suggested that the reward system be reevaluated. Dr. Cooper indicated that merit pay raises are not truly in effect, and the Subcommittee noted that performance of research in line with the ORD mission is not rewarded appropriately.

It was suggested that the phrase “legendary red tape of EPA’s ORD,” be modified. Dr. Cooper was amenable to modification of the phrase, but emphasized that the sentiment should not be significantly altered. NERL staff indicated that government bureaucracy has been discussed previously in a number of similar forums and there has been no significant improvement. Dr. Cooper indicated that the phrasing should clearly denote the importance of the issue. It was suggested that the final paragraph on page 13 be modified to more clearly state that NERL should look more to future needs/research goals.

**Recommendation 3.1:** It was agreed to divide this recommendation into two separate recommendations.

**Recommendation 3.2:** Dr. Zimmerman suggested that the phrase, “if it is to be ultimately successful” be replaced with the phrase, “if it is to better align itself with the new risk assessment/risk management paradigm.”

**Recommendation 3.5:** It was suggested to modify the recommendation to read, “... concepts of sustainable development, industrial ecology, pollution prevention, and ecological and human health.”

**Recommendation 3.6:** It was noted that although the STAR Program is referenced in the recommendation, it is not referenced in the body of the report. Dr. Schnoor indicated that he would add a reference to the STAR Program within the body of the report in an appropriate location.

**Recommendation 3.7:** Dr. Loehr suggested that the last two sentences of Recommendation 3.1 be moved to Recommendation 3.7. Dr. Denson suggested that the phrase, “relative to other Laboratories and Centers” be deleted. He noted that the Laboratories and Centers were not compared to each other during the reviews and it would, therefore, be inappropriate to include a comparative statement. Dr. Cooper agreed to remove the phrase, but preferred

that the statement be incorporated into the summary report, which will provide crosscutting recommendations for the five Laboratories/Centers.

It was agreed to include the 1996 and 1997 NERL Strategic Plans in the reference section of the report. Dr. Schnoor and Dr. Cooper agreed to revise the draft NERL report based on the comments of the Executive Committee, and the Executive Committee granted conditional approval of the report. Dr. Loehr was appointed as the Chair and Thomas Burke (Johns Hopkins University) was appointed Vice-Chair of the *ad hoc* committee assigned to review the modifications to the draft NERL report.

### **Review of the National Health and Environmental Effects Research Laboratory Draft Report**

Dr. Zimmerman, Chair of the NHEERL *Ad Hoc* Subcommittee, and Dr. Burke, Vice-Chair of the Subcommittee, led the discussion of the draft NHEERL report. The Subcommittee believes that NHEERL, the largest of ORD's Laboratories, should better integrate the health and environmental effects divisions of the Laboratory. Dr. Zimmerman agreed to add a footnote indicating that the Assistant Laboratory Directors (ALDs) are subsumed within the Office of the Director on the organization chart, and therefore do not appear on the organization chart. The Executive Committee noted that if the responsibility of the ALD includes communicating to the bench-top scientists, then the office of the ALD should have more staff. It was unclear to the Executive Committee if this function was part of the duties of the ALD. It was agreed to modify the sentence on page 20, paragraph 2 to read, "... the Laboratory evaluate the sufficiency of resources available to the ALDs to enable them to effectively ..." to address the aforementioned concern. Dr. Loehr mentioned that this recommendation is not clearly presented within Recommendation 5.4, and Dr. Zimmerman agreed to modify the language for clarity.

A number of additional comments were made regarding the NHEERL report, including:

- It was agreed to modify page 21, *Awards*, to read, "Other examples are given in the self-study report; whether or not the awards are consistent with the mission of the Laboratory was not evaluated by the Subcommittee."
- It was agreed to modify page 22, *Unique Capabilities and Their Use*, to read, "The unique capabilities of NHEERL in its mandate ..." Dr. Zimmerman indicated that the exact language may be altered.
- It was agreed to delete the eleventh and twelfth sentences of the section entitled *Unique Capabilities and Their Use*.
- It was agreed to modify the last sentence on page 23, paragraph 2 to read "... of the 250 Principal Investigators, which shows considerable ..."

Per Dr. Zimmerman's request, the Executive Committee agreed that she may redraft the report's executive summary to more closely reflect the conclusions and recommendations of the Subcommittee. The *ad hoc* review committee will review the redrafted executive summary and verify that the Executive Committee's comments have been addressed. The Executive Committee granted conditional approval to the NHEERL report. Dr. Cooper was appointed the Chair and James Bus (Dow) was appointed the Vice-Chair of the *ad hoc* review committee for the NHEERL report.

### **January 28, 1998**

The primary topics of today's discussion will be the draft NRMRL report and the draft NCEA report. Dr. Denson noted that there are several general business issues that also will be addressed.

### **Review of the National Risk Management Research Laboratory Draft Report**

Dr. Leaderer, Chair of the NRMRL *Ad Hoc* Subcommittee, noted that Dr. Kavanaugh, Vice-Chair of the Subcommittee, was unable to attend today's session, but he and Dr. Kavanaugh had discussed the report prior to the meeting to ensure that the preferences of the NRMRL Subcommittee are represented. Dr. Leaderer noted that he has

addressed the comments received during the January 12, 1998, conference call and reminded the Executive Committee members that the majority of these changes were provided to the Executive Committee for review prior to today's meeting. He added that the potential errors of fact, as provided by ORD, also have been addressed. Dr. Leaderer mentioned that NRMRL staff were very accommodating during the site visit and they openly sought feedback from the Subcommittee. Dr. Leaderer reported that the Subcommittee considered NRMRL's self-study report and the site visit—which included discussions with staff, case studies, and breakout sessions—when preparing the review report. The principal findings of the Subcommittee are outlined below.

#### Mission

- NRMRL is challenged by the change to a risk management laboratory from an engineering laboratory.
- NRMRL is challenged as research has been shifted from an extramural to an intramural focus.

#### Management

- NRMRL staff have a high level of confidence and respect for Laboratory management.
- It is unclear how scientific staff allocates time between research and administrative activities.
- NRMRL would benefit from closer ties between its ALDs and its scientists.

#### Personnel

- The Laboratory's scientific/engineering staff are talented and highly motivated.
- NRMRL's particular strength is in engineering.
- Despite the lack of adequate resources, NRMRL is making progress in their shift to focus on inhouse research.

Dr. Cooper commented on the difficulty of changing to a risk management laboratory and the shift to performing the research intramurally. NRMRL may not have the expertise to perform the research in-house, considering that the focus of the Laboratory has recently changed. Dr. Leaderer responded that this is the challenge facing NRMRL. He noted that EPA training courses are available to NRMRL staff and that they are a valuable resource to enhance skills. However, Dr. Leaderer commented that it may be difficult for some of the NRMRL researchers to adjust their abilities. NRMRL estimates that up to one-third of the staff will have difficulty moving from an engineering to a risk management focus due to the resistance or inability to do so. Dr. Leaderer summarized the principal recommendations of the Subcommittee as follows:

#### Mission

- NRMRL should develop a mission statement and strategy plan.

#### Management

- More extensive peer review is needed to ensure consistency with ORD and other Laboratories/Centers.
- Review the role of the ALDs to ensure they are an effective part of NRMRL.
- Develop a comprehensive management information system to track time and resource allocation.

#### Personnel

- Develop, institute, and monitor compliance of a 5-year human resource development plan.
- Develop a career development track for professionals consistent with NRMRL's mission.
- Develop a career enhancement program.
- Develop an effective rewards system.
- Ensure the availability of adequate resources for internal grant awardees.

Dr. Leaderer added that, although these recommendations are conveyed in the recommendation section of the report, there may be slight language differences. He noted that many of the Laboratories/Centers may benefit from a management information system, and suggested that a pilot program could be implemented at NRMRL. Dr. Cooper noted that tracking time is difficult in a research environment. Dr. Bus agreed, but noted that it is feasible and offers tremendous benefits. Dr. Leaderer clarified that the Subcommittee is not suggesting that a burdensome system be implemented, but the Subcommittee agreed that a tracking system should be instituted so that researchers have a better sense of expended resources for a particular project. Under the current system, although progress towards project



goals/objectives may be determined, it would be difficult to determine the percentage of project resources used to reach that point. Dr. Bus commented that the management system in place at Dow allows the researcher to do just that. He did acknowledge, however, that a period of adjustment was needed before the benefits of the system were fully understood by the researchers. Dr. Leaderer agreed to modify Recommendation 6, which discusses the utility of a management information system, to address the concerns of the Executive Committee. It was agreed that the *ad hoc* committee will assist with development of Recommendation 6.

Dr. Leaderer indicated that internal grants are often performed via an external contractor—it was unclear if the external contractor performed all grant duties or only repetitious tasks that would otherwise encumber the EPA researcher. The NRMRL Subcommittee believes that it would be more appropriate for internal grants to be performed by inhouse researchers. Dr. Denson added that it would be appropriate for external contractors to be used to perform required services of a research program, but not to serve as the program administrator of a grant. The Executive Committee agreed. Dr. Denson suggested that this contracting issue be addressed in the summary report.

The following additional comments on the NRMRL report were provided:

- It was agreed to modify Recommendation 2 to read, “... external review is needed.”
- It was agreed to delete the last sentence of Recommendation 6. Dr. Leaderer will modify Recommendation 6 to reflect the comments of the Executive Committee.
- It was agreed to delete Recommendation 7 in its entirety. The sentiment of the recommendation will be incorporated into the summary report.

The Executive Committee granted provisional acceptance to the draft NRMRL report and Dr. Schnoor was appointed the Chair and Dr. Zimmerman the Vice-Chair of the *ad hoc* committee assigned to review this report.

### **STAR Reports**

Dr. Preuss provided copies of three STAR reports—Children’s Exposure to Pesticides, Harmful Algal Blooms, and The Endocrine Disruptors—to the Executive Committee and indicated that additional STAR reports will be prepared on a (approximate) monthly basis. The reports target a lay audience and provide overviews of STAR research. A report typically provides an overview of the problem or issue, research performed in response to an RFA, and related research. Dr. Preuss indicated that additional information on the STAR Program is available on the NCERQA Web Site at <http://www.epa.gov/ncerqa>.

### **Discussion of Summary Report**

As discussed previously, each Executive Committee member has been asked to prepare three to five global recommendations for inclusion in a summary report addressed to the AA/ORD. Dr. Denson indicated that he will include in the summary report the need for: (1) better communication between management and bench scientists, and (2) development of strategic plans. Both of these recommendations were common to all of the Laboratory/Center reports. Dr. Denson asked that each recommendation be encapsulated in one sentence, followed by two to three sentences that provide justification.

### **Review of the National Center for Environmental Assessment Draft Report**

Dr. Bus, Chair of the NCEA *Ad Hoc* Subcommittee, and Robert Howarth (Cornell University), Vice-Chair of the Subcommittee, led the discussion of the draft NCEA report. The NCEA Subcommittee has addressed the comments received from ORD, which resulted in only minor changes. Dr. Bus indicated that many of the recommendations of the NCEA Subcommittee are similar to those of the other Subcommittees, notably Recommendations 1 and 2, which suggest respectively that communication be enhanced and that a strategic plan be developed. In response to an Executive Committee member’s suggestion, Dr. Bus replied that he will add language to more clearly state that the

recommendations are enumerated in Section 3.0 of the report, but also are presented in the body of the report as bolded text.

The Executive Committee made the following comments regarding the NCEA report:

- It was agreed to modify the last sentence of Recommendation 6 to read, “To ensure that NCEA is successfully satisfying its various clients, a comprehensive evaluation of both ...” Dr. Loehr commented that the bench-top scientists do not appear to be wedded to NCEA’s mission to the same degree as management and Dr. Bus agreed. Dr. Burke noted that NCEA is a small Laboratory in comparison with the other national Laboratories and, therefore, must leverage its resources with others. One Executive Committee member noted that NCEA should have a better understanding of its clients and their needs in order to better leverage its funds. Dr. Bus reminded the Executive Committee that Recommendation 6 addresses this comment.
- It was agreed to modify Recommendation 10 to read, “Develop an improved process to track cost and effort investment for project conduct so that management can better visualize which activities are consuming resources.”
- At the suggestion of the Executive Committee, Dr. Bus agreed to expand Recommendation 16.
- Recommendation 17 was modified to read, “Develop and implement a long-term leadership plan/process ...”

The Executive Committee granted conditional approval to the NCEA report. Dr. Leaderer was appointed Chair and Dr. Small Vice-Chair of the *ad hoc* committee assigned to review this report.

### **Review of the National Center for Environmental Research and Quality Assurance Draft Report**

Dr. Denson indicated that a conference call (open to the public) will be held to discuss the draft NCERQA report. The format of the discussion will be similar to today’s discussions. Dr. Small suggested that the conference call be held the week of February 23, 1998, and Shirley Hamilton (EPA) agreed to schedule the call and circulate the call-in information to the Executive Committee members.

### **Next BOSC Meeting**

It was suggested that the next BOSC Executive Committee meeting be held on April 30-May 1, 1998, at a location to be determined. Dr. Denson indicated that additional information regarding the meeting will be circulated in the near future.

### **Inclusion of the Laboratory/Center Self-Study Reports in the Review Reports**

Dr. Denson reopened the discussion concerning the inclusion of the Laboratory/Center self-study reports in the BOSC’s review reports. He asked if the self-study reports should be included as an appendix. Each self-study report is approximately 20 pages in length, plus a number of appendices. The Executive Committee agreed to exclude the appendices of the self-study reports to reduce the size of the review documents. They also agreed that interested parties could contact the Laboratory/Center to receive copies of the appendices. Dr. Cooper reminded the Executive Committee that the self-study reports were generated in a short time period; he noted that the Laboratory/Center Directors may prefer that the self-study reports be excluded. Another Executive Committee member echoed this sentiment. Dr. Leaderer, however, expressed his belief that the self-study report is essential to the readability of the NRMRL report. Dr. Denson pointed out that the self-study reports are public documents, and he agreed that inclusion of the reports would be very helpful when reading the reviews. In order to bring closure to the issue, Dr. Denson, as Chair of the Executive Committee, directed that the self-study report be included in the appropriate review report as an appendix. The Executive Committee members concurred with this decision, and Dr. Preuss agreed to convey the decision to the Laboratory and Center Directors.

## **Appointments to the BOSC**

Dr. Denson noted that there are two vacancies on the BOSC Executive Committee. A notice was placed in the Federal Register inviting interested parties to apply for the vacant BOSC appointments; however, little response was received. The Executive Committee members agreed that expertise in ecology and public policy would be beneficial. Dr. Howarth indicated that he could provide the names of 8 to 10 qualified ecologists for consideration. He noted, however, that they would need to be encouraged to participate in the BOSC because they may not be intimately familiar with the value of the BOSC and they have a number of other commitments. Dr. Denson reminded the Executive Committee that an appointment process has been established—although the BOSC Executive Committee may provide recommendations, the appointment is made by the Deputy Assistant Administrator and reviewed by the AA/ORD. Dr. Cooper suggested that they could approach individuals who previously have served on a board because they may be more cognizant of the value serving on the BOSC. However, Dr. Cooper also suggested that they avoid members of the “old guard” who will not be able to bring in new ideas. Dr. Denson agreed, and suggested that the Executive Committee target underrepresented groups such as minorities and women. Another member suggested that the BOSC consider members of the NRC and the SAB. Ms. Hamilton agreed to obtain lists of the SAB Subcommittees for circulation to the Executive Committee. An Executive Committee member noted that the BOSC Subcommittees have a number of non-BOSC members who should be considered—non-BOSC members were appointed to the Subcommittees with the understanding that they would be considered for future BOSC appointments. Another Executive Committee member asked if Dr. Bergman could be re-appointed.

Dr. Loehr suggested that a Subcommittee be established to address this issue. That Subcommittee could develop a list of nominees to be submitted to the Executive Committee Chair and the AA/ORD for consideration. The Subcommittee will accept recommendations and perform an initial evaluation, discussing strong candidates with the Executive Committee Chair and the AA/ORD. The Subcommittee would be tasked with actively seeking underrepresented groups, such as minorities and women as well as areas of expertise in which the Executive Committee is deficient. Dr. Preuss suggested placing a second notice in the Federal Register because the BOSC is now more well known. The Executive Committee agreed to create a standing three-person Subcommittee to accept nominations for the BOSC Executive Committee and various BOSC subcommittees. William Pierson (Desert Research Institute), Dr. Cooper, and Dr. Howarth were appointed to the Subcommittee.

## **Discussion of Proposal to the BOSC**

A discussion was initiated of the proposed modifications to the BOSC charter, which were presented earlier by Mr. Alexander. Dr. Preuss provided a quick recap of the proposal. Dr. Loehr noted that although providing advice to the Laboratory and Center Directors may be appropriate, he was concerned that it may over commit the resources of the Executive Committee, and Dr. Denson agreed. Five standing committees would need to be created to provide advice to the Directors; this would increase substantially the size of the BOSC. Dr. Small noted that doing so would place greater responsibility on the subcommittees—he asked if the Executive Committee preferred this scenario. Mr. Longest indicated that the Directors are interested in receiving additional advice. The creation of a standing committee for each Laboratory/Center would enable a Director to more easily communicate (without going through the Executive Committee or the AA/ORD), and would extend the BOSC’s resources. Dr. Cooper asked if it would be appropriate to advise a Director without first consulting the AA/ORD. Mr. Longest responded that it would be appropriate as long as the recommendations to the Director were in line with the mission of ORD and EPA. Dr. Preuss added that there is currently no group that a Director can use to discuss pragmatic issues. Mr. Longest pointed out that these standing Subcommittees would address science issues as well. Dr. Schnoor liked the idea of providing advice to the Directors. Dr. Denson noted that this role is not part of the BOSC’s original charter. It was suggested that the Executive Committee obtain input from the Laboratory and Center Directors regarding their perceived needs. Dr. Cooper volunteered to develop a synopsis of the BOSC’s position on this matter, highlighting the BOSC’s concerns and questions. The white paper also will address the perceived needs of the Laboratories and Centers. Dr. Preuss indicated that he will request the Laboratory and Center Directors to develop a document highlighting their needs and the strategic alternatives to satisfy those needs.

Dr. Denson thanked all of the participants for their efforts and adjourned the meeting.

## **Action Items**

The following action items were identified during the meeting discussions:

- Peter Preuss will provide copies of the STAR reports to the Executive Committee members.
- Each Subcommittee will revise its draft report based on the comments of the Executive Committee.
- Executive Committee members will identify three to five issues to be included in the summary reports and provide them to Costel Denson.
- Executive Committee members will direct any questions that they may receive regarding the review reports to Costel Denson.
- Shirley Hamilton will schedule a conference call for the week of February 23, 1998, and circulate the call-in information to the Executive Committee members.
- Peter Preuss will inform the Laboratory and Center Directors that the self-study reports will be included in the review reports as an appendix.
- Shirley Hamilton will obtain lists of the members of the SAB Subcommittees for circulation to the Executive Committee.
- William Cooper will develop a synopsis of the BOSC's comments on ORD's proposal to the BOSC.
- Peter Preuss will ask the Laboratory and Center Directors to develop a document highlighting their needs and the alternatives to satisfy those needs.

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