

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

**BOARD OF SCIENTIFIC COUNSELORS
EXECUTIVE COMMITTEE CONFERENCE CALL**

**December 17, 2001
1:00 p.m. – 3:00 p.m. EST**

Review of the Agenda

Dr. Jerry Schnoor (University of Iowa), Chair of the Board of Scientific Counselors (BOSC), quickly reviewed the agenda for the conference call, indicating that the call would include discussion of the National Center for Environmental Assessment (NCEA) draft report, the National Risk Management Research Laboratory (NRMRL) draft report, and an update on the status of the National Health and Environmental Effects Research Laboratory (NHEERL) draft report. Dr. Mitch Small (Carnegie-Mellon University) indicated that he could only remain on the call until 2:00 p.m., and asked if the NRMRL report could be the first item on the agenda. Dr. Schnoor replied that Dr. Rae Zimmerman (New York University) also was only available until 2:00 p.m., which is the reason that the NCEA report was first on the agenda. It was agreed that the NCEA report would be discussed first, because there was some discussion of the draft NRMRL report at the last BOSC meeting. Dr. Schnoor also mentioned that Drs. Juarine Stewart (Clark Atlanta University) and Bill Chaimedes (Georgia Institute of Technology) had submitted written comments because they would be unable to participate in the call.

Discussion of the Draft NCEA Report

Dr. Rae Zimmerman, Chair of the NCEA Subcommittee, indicated that the report is missing an executive summary, which she agreed to prepare. She noted that the report was organized according to the self-study questions submitted to the Center. It highlights a number of recommendations, which Dr. Zimmerman summarized for the call participants. The Subcommittee specifically suggested that the Center's strategic planning process should include the flexibility to respond to unforeseen events such as those of September 11. Dr. Zimmerman pointed out that NCEA has elected to conduct fewer risk assessments; focusing on developing guidance and conducting only the most complex assessments. The Subcommittee agreed with this approach. The Subcommittee recommended that NCEA continue to enhance communication within the Center to foster interdisciplinary work across the Divisions. The Center also should explore means to enhance integration with other Laboratories/Centers, Program Offices, and Regional Offices. The Subcommittee recommended that NCEA employ social scientists as AAAS fellows, post-docs, or permanent staff. Dr. Zimmerman noted that NCEA has made progress in integrating ecology and human health assessments since the last BOSC review. The Subcommittee recommended establishing interdisciplinary teams with human health risk assessors and ecological risk assessors working together on the same case studies to enhance this integration. The Subcommittee agreed that NCEA should continue to focus on key risk assessments and serve as a resource to the Agency, providing guidance for risk assessments conducted by others within EPA. The report notes that NCEA needs to decide whether it should remain "a mile wide and inch deep" or focus on particular disciplines. The Subcommittee noted that this decision is fundamental to planning for staff recruitment. With regard to performance, the Subcommittee recommended that NCEA identify and evaluate organizations against which the Center could benchmark its work. The Subcommittee also recommended

that NCEA expand its measures of success through customer surveys. The Center should develop processes to better communicate its work to internal and external audiences.

In concluding her presentation, Dr. Zimmerman stated that the Center was well prepared for the site visit. She asked if Dr. Daniel Acosta (University of Cincinnati), Vice Chair of the NCEA Subcommittee, had any comments on the report. He indicated that he had nothing to add to Dr. Zimmerman's presentation.

Dr. Herb Windom (Skidaway Institute of Oceanography) asked Dr. Zimmerman to clarify Recommendation #5 on page 20 of the draft report. She replied that when most risk assessments are conducted they are based on science; the community is not consulted about the major risk exposure points or other issues. Dr. Zimmerman noted the need to communicate with the community prior to initiating the risk assessment; the information obtained from the community could shape the risk assessment analysis. Dr. Ann Bostrom (Georgia Institute of Technology) suggested including a reference or two with the recommendation. Dr. Zimmerman agreed to clarify this recommendation and include the appropriate references.

Dr. Jim Bus (Dow Chemical Company) indicated that he participated in the previous NCEA review. During that review, the Center indicated that one of its primary purposes was to conduct risk assessments. Dr. Bus noted that NCEA appears to have changed its position and now elects to develop principles and guidelines for risk assessments rather than conducting the assessments. Dr. Bus asked if NCEA had articulated a strategy that defines how the Center plans to bring about this strategic shift. How will the Center ensure that those conducting the risk assessments are complying with the principles and approaches that NCER has identified as scientifically defensible? Dr. Zimmerman replied that NCEA did not identify a specific strategy to facilitate this shift. Dr. Bus asked how NCEA is transferring the principles and practices to those who will be using them. Dr. Zimmerman thought that the Center intends to transfer this information through guidance documents. Dr. Schnoor asked if NCEA should consider a review role to ensure that the principles and practices are applied correctly. He noted that NCEA views itself as a partner in important risk assessments and provides advice. Dr. Bus asked how the Center will ensure that the principles and practices are being implemented effectively. Dr. Zimmerman suggested that this question be posed to NCEA and added to the report.

Dr. Jim Johnson (Howard University) commented that NCEA did not respond to the self-study questions on the strategic level required by the BOSC. He thought the Center failed to address a number of questions adequately. For example, the Center did not provide an adequate response to the question regarding its unique research capabilities. He noted that the NCEA report is quite different from the NRMRL report in that the NRMRL report addresses how the Laboratory responded to previous BOSC recommendations. Dr. Bus agreed that it was difficult to glean from the draft report how NCEA has progressed since the last review. Dr. Zimmerman replied that the Subcommittee may need to do a better job of addressing how NCEA has responded to previous recommendations. She indicated that the Center has made substantial progress since the last review, and she agreed to prepare a paragraph or two for the report that describes that progress. Dr. Small suggested moving the response to the question regarding how the Center responded to the previous recommendations to the front of the report. Such an approach was used in the NRMRL report.

Dr. Johnson suggested that the reports' recommendations should be consistent. For example, recommendations concerning personnel expertise and benchmarking should be consistent from report to report. Dr. Windom agreed that benchmarking and contingency planning were issues that arose in the NHEERL review. He thought it would be useful to discuss these common concerns. The BOSC could identify a number of systemic concerns that are common across ORD. Dr. Schnoor asked if there should be some advice at the end of each report that applied to all of ORD and not just the Laboratory or Center. He also expressed some concern about including a recommendation for additional resources. Should only one report include such a recommendation? Dr. Windom noted that every Laboratory/Center would

indicate that they need more resources. Dr. Zimmerman stated that the Subcommittee believed that NCEA should receive more funding, given the percentage of ORD's budget that the Center currently receives and the importance of its role. Dr. Bus was reluctant for the BOSC to make such a recommendation. He believes that ORD management should make such decisions because they are dependent on how the Laboratories/Centers are integrated. Dr. Johnson did not believe the BOSC should make such a recommendation until it determines whether the Center is implementing its strategy effectively. Dr. Bus stated that the Laboratories/Centers need to develop integrated strategic plans that enable ORD management to make budget decisions. He noted that if the plans are not well integrated, it will be difficult for ORD to make the necessary funding decisions.

Dr. Windom stated that a number of the acronyms in the report are not defined. He suggested that each report include a list of acronyms. Dr. Schnoor supported this suggestion. Dr. Jim Clark (Exxon-Mobile Research & Engineering Co.) expressed his disappointment that NCEA identified only international organizations against which to benchmark itself. He asked why they failed to consider the U.S. Department of Agriculture (USDA) or the Food and Drug Administration (FDA). Dr. Zimmerman responded that NCEA is looking to the BOSC for suggestions. Dr. Bostrom commented that benchmarking should be addressed for all the Laboratories/Centers, and Dr. Schnoor agreed. He plans to prepare a letter on benchmarking for the new Assistant Administrator for ORD. Dr. Windom suggested including STAR grant fellows in the list of sources from which the Center recruits (page 15 of the NCEA draft report). Dr. Schnoor thanked Dr. Zimmerman for her presentation on the draft report as well as the participants for their insightful comments. He asked Dr. Zimmerman to submit the final report to Shirley Hamilton by January 11, 2002. Dr. Zimmerman asked if the report could be sent to George Alapas for comment, and Dr. Peter Preuss (ORD/NCER) replied that it should be sent to him as soon as possible.

Discussion of the Draft NRMRL Report

Dr. Mitch Small quickly reviewed the items that he plans to include in the Executive Summary for the NRMRL report. The Executive Summary will address: planning, metrics, benchmarking, capabilities of personnel, communication, and ongoing followup.

Dr. Small indicated that NRMRL should finalize its draft strategic plan and invest more effort in communicating the plan to ensure buy-in from all Laboratory staff. He suggested that NRMRL implement a "staged-gate" approach for evaluating projects at different phases. Continuation of a project should be earned by progression through a known set of steps or meeting a specific criterion. With regard to metrics, the Subcommittee suggested that NRMRL develop mechanisms for assessing the impact, as well as the number, of its work products. The Subcommittee believed that NRMRL will have to identify several organizations against which to benchmark its various efforts. The Subcommittee noted that NRMRL is trying to use post-docs to cover areas of expertise that are lacking at the Laboratory. The Subcommittee supports this approach only if NRMRL retains the expertise by hiring the post-docs as career employees. The Laboratory has no planned, formal mechanisms for recruiting the needed expertise and the current approach of hiring individuals with the needed capabilities as staff retire is not adequate. The Subcommittee also suggested the need for a leadership development program to help train and guide scientists in managing projects. Dr. Small indicated that there needs to be more interaction between NRMRL scientists and the STAR grantees. NRMRL needs to improve internal communication and develop a more proactive communication program. The Laboratory also should examine whether it currently has the correct mix of communication expertise. Dr. Small mentioned that NRMRL has requested ongoing review meetings with the BOSC, perhaps once or twice a year, and the Subcommittee supported this suggestion.

Dr. Small asked if Dr. Elaine Dorward-King (Rio Tinto Borax), Vice-Chair of the NRMRL Subcommittee, had anything to add to the presentation, and she replied that Dr. Small's summary was excellent and complete.

Dr. Johnson asked if the paragraph following Recommendation #7 on page 5 refers to in-house or contracted services. Dr. Small replied that when NRMRL was managing research rather than doing it, the Laboratory contracted out laboratory analyses; now, these services are performed onsite by contractors. NRMRL staff believe that it would be more efficient for Laboratory staff to conduct these analyses. Such an approach has been implemented effectively within NHEERL. Dr. Small agreed to elaborate on this issue in the report.

Dr. Schnoor noted that this report, like the NCEA report, addresses measures of success, benchmarking, and communication. He suggested that these themes be addressed in a separate letter to the Assistant Administrator of ORD after the Laboratory/Center reviews. Dr. Small noted the need for a unified approach for following up the reviews. Dr. Schnoor commented that the Subcommittees should maintain their independence from the Laboratories/Centers; however, he acknowledged the need for ongoing consultation. Dr. Schnoor asked if NRMRL provided the Subcommittee information about the Laboratory's budget. Dr. Dorward-King responded that NRMRL provided the information, but it was not included in the report. She noted that the report does include a statement that resources will be limited so the Laboratory should seek efficiencies and opportunities to ensure that resources are used appropriately.

Dr. Bostrom requested copies of the responses to the self-study questions that were submitted by NCEA and NRMRL. Beverly Campbell (SCG) reminded the BOSC members that each Subcommittee Chair agreed to mail a copy of the self-study question responses to her so that copies could be prepared and distributed to the BOSC members. To date, Ms. Campbell had received only the response submitted by the National Center for Environmental Research (NCER). Dr. Dorward-King indicated that she had mailed the NRMRL response to Ms. Campbell several weeks ago. Ms. Campbell replied that she had not received the NRMRL response to self-study questions. Dr. Dorward-King agreed to send another copy of the response to Ms. Campbell. Dr. Schnoor asked each Subcommittee Chair to mail the Laboratory/Center response to self-study questions to Ms. Campbell as soon as possible so that they can be included in the notebook for the February BOSC meeting. Dr. Bostrom commented that the Communications Subcommittee needs the responses to the self-study questions as soon as possible. She suggested that these responses, along with the previous Laboratory/Center review reports, could be posted on a BOSC Web site.

Dr. Bus stated that the strong wording in the second paragraph at the top of page 10 (which begins with "It is obvious that there are differences between...") indicates that there are problems between NRMRL management and staff. Dr. Dorward-King replied that the Subcommittee intended the point to be strong. Dr. Schnoor added that the bench scientists were skeptical about the strategic plan; however, they were not over critical of NRMRL management. Dr. Bus asked if there was a problem with staff buy-in of the strategic plan. Dr. Dorward-King replied that the staff do not understand how the management's decisions mesh with the strategic plan. They believe that the management decisions are being made independent of the plan. They also do not take the plan seriously because it was never finalized. Dr. Bus asked that the report indicate that NRMRL management needs to explain its decisions in the context of the strategic plan. Dr. Dorward-King agreed to clarify this section of the report.

Update on the NHEERL Report

Dr. Jim Bus, Chair of the NHEERL Subcommittee, indicated that the draft report should be ready for review at the February 2002 BOSC meeting. Dr. Schnoor asked that the draft report be sent to Shirley Hamilton by January 11, 2002.

Dr. Bus reported that there was good interaction with NHEERL staff at the site visit. The Subcommittee elected to forego a poster session because NHEERL staff are scattered across the United States.

NHEERL brought in all the Division Directors for the site visit, and they were active participants in the dialog.

Public Comments

Dr. Schnoor asked if there were any public comments from participants on the call. No comments were provided. Dr. Preuss indicated that although Ms. Hamilton received several inquiries about the conference call, she did not receive any public comments on the reports prior to the call.

Update on the Communications Ad Hoc Subcommittee

Dr. Ann Bostrom reported that the Communications Ad Hoc Subcommittee has prepared a number of questions for ORD. She agreed to send the questions to Ms. Hamilton and Dr. Schnoor. Dr. Bostrom indicated that the Subcommittee decided to focus the review on communication innovations. The review will target specific research results communication products (e.g., State-of-the-Science reports, workshops, Web sites, Capstone reports, software). She noted that the Subcommittee members had some concern about sending the self-study questions through the communications office. Dr. Bostrom would prefer that the questions be sent from the Subcommittee and copied to the communications office. She noted that the communications office will assist the Subcommittee in identifying who should receive the questions. Dr. Schnoor supported the Subcommittee's decision to focus on communication innovations. Dr. Preuss asked if the Subcommittee report will include a definition of innovation, and Dr. Bostrom replied that such a definition would be included in the report. The Subcommittee's review will focus on approximately five specific communication products. The review also will followup on the 1998 NCERQA Communications Strategy. Dr. Preuss asked Dr. Bostrom to send him the Subcommittee's list of items to review. He agreed to work with Dr. Bill Farland (ORD) to identify some additional communication products that may have been overlooked by the Subcommittee.

Wrap-Up

Dr. Schnoor reminded the NRMRL and NCEA Subcommittee Chairs that the final reports were due to Ms. Hamilton on January 11, 2002. The draft NHEERL report also is due to Ms. Hamilton on January 11. In addition, the responses to the self-study questions should be sent to Ms. Campbell prior to January 11, so that copies can be included in the February meeting notebook. Dr. Schnoor thanked the BOSC members for their participation and concluded the conference call at 2:32 p.m.

Action Items

The following action items were identified during the discussions:

- ❖ Dr. Zimmerman agreed to clarify Recommendation #5 on page 20 of the draft NCEA report and insert the appropriate references.
- ❖ Dr. Zimmerman suggested that the question of how NCEA is transferring risk assessment principles and practices to those who will be using them within the Agency be posed to the Center. She agreed to add this to the NCEA report.
- ❖ Because it was difficult to glean from the draft report how NCEA has responded to the recommendations in the last review, Dr. Zimmerman agreed to prepare a paragraph or two for the report that describes that progress. Dr. Small suggested moving the response to the question regarding how the Center responded to the previous recommendations to the front of the NCEA report.

- ✧ Dr. Windom suggested that each report include a list of acronyms.
- ✧ Dr. Windom suggested including STAR grant fellows in the list of sources from which the Center recruits (page 15 of the draft NCEA report).
- ✧ Dr. Zimmerman agreed to send the NCEA draft report to George Alapas for comment as soon as possible.
- ✧ Dr. Small agreed to clarify the paragraph following Recommendation #7 on page 5 that refers to in-house or contracted services. He will elaborate on the fact that NRMRL staff believe that it would be more efficient for Laboratory staff to conduct these analyses.
- ✧ Dr. Dorward-King agreed to send another copy of the NRMRL response to the self-study questions to Ms. Campbell.
- ✧ Dr. Dorward-King agreed to clarify the second paragraph at the top of page 10 (which begins with “It is obvious that there are differences between...”) so that the report clearly indicates that NRMRL management needs to explain its decisions in the context of the strategic plan.
- ✧ Dr. Bostrom agreed to send the Communication Ad Hoc Subcommittee’s questions to Ms. Hamilton and Dr. Schnoor.
- ✧ Dr. Bostrom agreed to send the Subcommittee’s list of communication products to Dr. Preuss. He volunteered to work with Dr. Bill Farland to identify some additional communication products that may have been overlooked by the Subcommittee.
- ✧ Dr. Zimmerman agreed to send the final NCEA report to Ms. Hamilton by January 11, 2002.
- ✧ Dr. Small agreed to send the final NRMRL report to Ms. Hamilton by January 11, 2002.
- ✧ Dr. Bus agreed to send the draft NHEERL report to Ms. Hamilton by January 11, 2002.
- ✧ All Subcommittee Chairs agreed to send copies of the Laboratory/Center responses to the self-study questions to Ms. Campbell no later than January 11, 2002, so that the responses can be included in the notebook for the February BOSC meeting.

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