

1 **NATIONAL CENTER FOR ENVIRONMENTAL RESEARCH (NCER)**
2 **STANDING SUBCOMMITTEE**

3
4 **Conference Call Summary**
5 **January 12, 2009**
6 **1:00 p.m. – 3:00 p.m. Eastern Time**

7
8 **Welcome**

9 *Dr. Martin Philbert, University of Michigan, NCER Standing Subcommittee Chair*

10 Dr. Martin Philbert, Chair of the NCER Standing Subcommittee, welcomed participants to the Board of
11 Scientific Counselors (BOSC) NCER Standing Subcommittee conference call. The agenda for the call
12 included an overview presentation of the Office of Research and Development's (ORD) research
13 program, a presentation on NCER's reorganization and vision, and discussion of information needs and
14 writing assignments for the Subcommittee's face-to-face meeting scheduled for February 2-3, 2009. After
15 confirming that there were no questions regarding the agenda, Dr. Philbert asked each participant to state
16 his or her name and affiliation. The list of participants is attached to this summary.

17 Dr. Philbert confirmed that the Subcommittee members had received the charge. When the
18 Subcommittee members had no questions or concerns on the scope of the charge, Dr. Philbert asked Ms.
19 Susan Peterson to provide the Designated Federal Officer's (DFO) remarks.

20 **Administrative Procedures**

21 *Ms. Susan Peterson, U.S. Environmental Protection Agency (EPA)/ORD/Office of Science Policy*
22 *(OSP), Subcommittee DFO*

23 Ms. Peterson, DFO for the Subcommittee, thanked the Subcommittee members for their participation on
24 the call. She explained that the BOSC Subcommittee is a federal advisory committee that has been asked
25 to respond to a set of charge questions as part of a review of EPA's NCER. As DFO, Ms. Peterson serves
26 as the liaison between the Subcommittee members and the Agency and is responsible for ensuring that the
27 Subcommittee complies with the requirements of the Federal Advisory Committee Act (FACA). Ms.
28 Peterson briefly explained these FACA requirements. All meetings involving substantive issues—whether
29 in person, by phone, or by e-mail—are open to the public. This includes all group communications that
30 include at least one-half of the Subcommittee members. All meetings must be announced in the *Federal*
31 *Register* at least 15 calendar days in advance of the meeting and an electronic public docket was
32 established for this conference call. In addition, all advisory committee documents are made available to
33 the public. There is time set aside for public comment during this call. No advance requests for comment
34 had been submitted by the public, but Ms. Peterson said she would call for public comments at 1:50 p.m.
35 Each comment should be limited to 3 minutes.

36 Ms. Peterson confirmed that all Subcommittee members had received the agenda, charge, and
37 presentations for the call and requested that Subcommittee members to track the hours they spend
38 preparing for the review on their homework sheets. She explained that members should not track the
39 hours for the conference calls and meetings because she recorded those hours. Ms. Peterson asked
40 members to submit their homework sheets to her at the February 2-3, 2009 meeting. She also reminded

1 the members to submit their travel preferences form as soon as possible. Troy Rutkofske is making the
2 travel arrangements for the Subcommittee members

3 Ms. Peterson stated that a contractor, Beverly Campbell from The Scientific Consulting Group (SCG),
4 was present to take notes and prepare a summary of the conference call. She asked all participants to
5 identify themselves when speaking and to speak clearly so that the discussions could be captured
6 accurately.

7 Dr. Philbert thanked Ms. Peterson for explaining the administrative procedures and introduced Dr. Chuck
8 Noss, who provided an overview of ORD's research program.

9 **Overview of ORD Research Program**

10 *Dr. Charles Noss, EPA/ORD, National Program Director*

11 Dr. Noss stated that he was making this presentation as a representative of ORD's National Program
12 Directors (NPDs). Each year, a lead NPD is selected, and Dr. Noss currently holds this designation.

13 Dr. Noss' presentation covered the role, mission, and profile of ORD; the organizational structure and
14 locations of the ORD components; and the ORD strategic planning process. Referring to an
15 organizational chart of EPA, he explained that ORD is one of the offices within the Agency and it
16 supports the various program offices and the 10 regions listed on the chart. Dr. Noss noted that the
17 Research Coordination Teams (RCTs), which he referred to later in his presentation, included
18 representatives from the program and regional offices as well as from the financial and administrative
19 offices.

20 ORD's role is to provide the scientific foundation for: (1) achieving EPA's mission to protect human
21 health and safeguard the natural environment upon which life depends, (2) the national decisions made by
22 the program offices (Air, Water, Waste, Pesticides/Toxics), and (3) implementation of environmental
23 protection by the regional offices as the primary interface with the states.

24 ORD's mission is to provide the scientific foundation to support EPA's mission by:

- 25 ✧ Conducting research and development to identify, understand, and solve current and future
26 environmental problems.
- 27 ✧ Providing responsive technical support to EPA's programs and regions.
- 28 ✧ Collaborating with scientific partners in academia and other agencies, state and tribal governments,
29 private sector organizations, and nations.
- 30 ✧ Exercising leadership in addressing emerging environmental issues and advancing the science and
31 technology of risk assessment and risk management.

32 ORD has 1,858 full-time equivalents (FTEs), a budget of \$551.3 million, and a \$55 million extramural
33 research grants program in the Fiscal Year (FY) 2009 revised President's budget. ORD consists of 13
34 laboratories, research facilities, and offices located across the United States. ORD produces credible,
35 relevant, and timely research results and provides technical support that informs EPA policy decisions.

36 Dr. Noss presented the ORD organization chart, which included the Immediate Office of the Assistant
37 Administrator (IOAA), Office of the Science Advisor (OSA), Office of Resources Management and
38 Administration (ORMA), Office of Science Policy (OSP), National Health and Environmental Effects
39 Research Laboratory (NHEERL), National Exposure Research Laboratory (NERL), National Risk
40 Management Research Laboratory (NRMRL), National Center for Environmental Assessment (NCEA),

1 NCER, National Homeland Security Research Center (NHSRC), and National Center for Computational
 2 Toxicology (NCCT). The NPDs work across all ORD laboratories and centers and the ORD Executive
 3 Council to plan what research will be done and the timing of that research.

4 Dr. Noss explained that Dr. George Gray, the Assistant Administrator (AA) for ORD, will be leaving
 5 soon and Lek Kadeli will be the Acting AA for ORD until the new AA is appointed and confirmed. He
 6 also mentioned that Howard Cantor, who was the Acting Director of ORMA, has left the Agency.

7 Referring to a map of the United States that identified the various ORD locations, Dr. Noss noted that
 8 there are three major ORD locations—Washington, DC; Research Triangle Park (RTP), North Carolina;
 9 and Cincinnati, Ohio. IOAA, OSA, ORMA, OSP, NCER, and NCEA are located in Washington, DC;
 10 NRMRL and NHSRC are in Cincinnati; and NHEERL, NERL, and NCCT are in RTP. ORD also has
 11 facilities in Newport and Corvallis, Oregon; Duluth, Minnesota; Grosse Ile, Michigan; Narragansett,
 12 Rhode Island; Edison, New Jersey; Athens, Georgia; Gulf Breeze, Florida; Ada, Oklahoma; and Las
 13 Vegas, Nevada. The point Dr. Noss wanted to make was that ORD is comprised of a distributed
 14 population of researchers.

15 Dr. Noss presented a diagram that depicts how ORD evolves its research program. Input is obtained from
 16 the programs and regions through the RCTs, the EPA Strategic Plan, the administration's priorities,
 17 congressional mandates, BOSC reviews, Science Advisory Board (SAB), National Academy of Sciences
 18 (NAS) and other external advice, stakeholders, NPDs, Science Council, Management Council, and
 19 Executive Council. With regard to planning the program, the NPDs decide what research area-specific
 20 work ORD will do and when it will be done, and the Laboratory/Center Directors decide how ORD
 21 produces its research products. The ORD Executive Council makes corporate decisions on what research
 22 ORD does and how ORD does that research. With respect to implementing the research program, the
 23 Laboratory/Center Directors are responsible for developing ORD's research products and the NPDs are
 24 responsible for communicating those products to clients. The diagram also depicted the various
 25 evaluation components (program and regional office feedback; BOSC program reviews; NAS, National
 26 Association of Public Administration, and other advisory bodies; and Program Assessment Rating Tool
 27 [PART] reviews) that feed back into the research program planning and implementation.

28 Dr. Noss stated that ORD's efforts focus on the research activities and outputs that are used by ORD's
 29 partners in developing policies that yield short-term environmental outcomes and results. These short-
 30 term outcomes and results lead to mid-term outcomes and results that achieve strategic objectives. These
 31 mid-term outcomes and results eventually lead to long-term outcomes and results that achieve strategic
 32 goals. He stressed the need for ORD to support the implementation of research results to demonstrate
 33 short-term outcomes.

34 The major components of ORD's strategic planning activity are the NPDs, the Multi-Year Plans (MYPs),
 35 and the BOSC reviews. The NPDs develop strategic directions for their research programs annually and
 36 these are reflected in the MYPs. The NPDs identify areas of growing, as well as decreasing, research
 37 emphasis. They also inform annual research planning and budgeting efforts.

38 The MYPs are planning and accountability tools that address EPA's high-priority science questions.
 39 They provide information to assist and support research decisions, demonstrate how the ORD program
 40 contributes to Agency strategic goals, and communicate research internally and externally.

41 The BOSC program reviews provide a qualitative performance rating and a summary assessment of
 42 progress on each of the program's long-term goals (LTGs). The BOSC rating incorporates elements of
 43 relevance, quality, and program performance (i.e., Research and Development Investment Criteria, as
 44 identified in the President's Management Agenda) as they relate to research outcomes.

1 The elements of the MYP include LTGs, Annual Performance Goals (APGs), and Annual Performance
2 Measures (APMs). For each LTG, the MYP identifies the timeframe to deliver the work and the role of
3 ORD and others. The APGs indicate the sequence of the research to provide results, integrating the
4 research from all sources. The APMs indicate who will accomplish the work (in-house laboratory/center
5 or extramural research) and ensure that the work can be done with available resources. The completion of
6 the APMs leads to the achievement of an APG, and the APGs produce useful information/tools to meet
7 the LTG.

8 Dr. Noss described the two types of research conducted by ORD—cross-program research and program-
9 targeted research. Cross-program research has broad applications and implications for multiple offices.
10 This research addresses an issue that is persistent, such that priorities remain fairly stable but continued
11 improvement in the science is needed to address the priority. Cross-program research applies emerging
12 approaches and tools and serves as an incubator for innovation ideas to address long-standing issues.
13 This research gives double “bang for the buck” by selecting stressors to address a cross-program issue
14 that also will inform a program-targeted effort. Program-targeted research often is conducted for a single
15 or primary client. It may be legislatively mandated with specific deadlines and often employs established
16 methodologies. Priorities of program-targeted research may shift based on changing program needs. Dr.
17 Noss stressed that both types of research are necessary. He mentioned that the research on understanding
18 the toxicity of the conazole class of pesticides under the Computational Toxicology Research Program is
19 an example of the complementary nature of cross-program and program-targeted research. This research
20 is providing a direct benefit to EPA’s Office of Pesticide Programs and is serving as a proof-of-concept
21 activity in ORD’s ongoing effort to develop a generalizable capability to apply genomics-based
22 computational approaches to environmental toxicology.

23 Dr. Noss used the National Water Program Climate Change Strategy as an example of research to address
24 emerging issues of national importance. The National Water Program Strategy: Response to Climate
25 Change was released in September 2008. It provides an overview of likely effects of climate change on
26 water resources and the nation’s clean water and safe drinking water programs. The strategy describes
27 specific actions the National Water Program intends to take to adapt to climate change. It was developed
28 by a cross-EPA National Water Program Climate Change Workgroup that included ORD representatives.
29 The strategy reflects contributions from multiple ORD research programs, including Global Change,
30 Drinking Water, Clean Water, and Ecosystems. The major commitments made by ORD in the strategy
31 are: (1) the integrated Drinking Water Program/Global Change Program effort to study geologic
32 sequestration of carbon dioxide, and (2) the Global Change Program assessment of implications of
33 climate change for goals articulated in the Clean Water Act and the Safe Drinking Water Act.

34 Dr. Noss closed his presentation by stating that ORD’s research programs are evolving to address national
35 concerns as well as targeted areas. Balancing the two types of research to meet both needs remains a
36 challenge.

37 Dr. Philbert thanked Dr. Noss for his presentation and asked him to elaborate on how ORD strikes a
38 balance between targeted research and hypothesis-driven research. Dr. Noss replied that there is no clear
39 answer to this question. Improved communication is a key element. ORD’s efforts are not always
40 perceived as important by the program offices unless they are targeted to a specific program office need.
41 ORD is trying to engage in more frequent, high-level communication with the program offices to ensure
42 that they understand the scope and purpose of the research. The RCTs help identify research needs from
43 the bottom up but managers identify priorities at the top. It is important that these priorities are
44 communicated to and agreed upon with the senior managers in the program offices. This is the only way
45 to reach a “corporate” view of priorities for a research program.

46 Dr. Alan Hansen asked if there is a formal process used to set priorities. Dr. Noss responded that there is
47 a formal process for establishing priorities for the MYPs. It is a bottom-up process that is approved by
48 the top executives in ORD and the program offices. The challenge is staying on the cutting-edge of

1 science while maintaining the flexibility to address critical issues as they arise. ORD cannot be locked
2 into a longer-term planning process if it is to maintain this flexibility. Dr. Hansen then asked about the
3 approach that drives the priorities. Dr. Noss replied that ORD is beginning to implement processes to
4 address problems that pose higher risk.

5 **Public Comment**

6 At 1:50 p.m., Ms. Peterson called for public comments. No members of the public offered comments.

7 **Sponsored Research at U.S. EPA's NCER**

8 *Dr. William Sanders, EPA/ORD, NCER Director*

9 Dr. William Sanders said he was looking forward to working with the Subcommittee again on this
10 review. He explained that Mr. Chris Zarba, Deputy Director of NCER, as well as the NCER Division
11 Directors would assist with the presentation.

12 Dr. Sanders identified the major areas of NCER's research by EPA strategic goal:

13 Goal 1: Clean Air—Air Toxics, National Ambient Air Quality Standards (NAAQS)

14 Goal 2: Clean and Safe Water—Drinking Water, Water Quality

15 Goal 3: Land Preservation and Restoration—Land Preservation and Restoration

16 Goal 4: Healthy Communities and Ecosystems—Computational Toxicology, Endocrine Disruptors,
17 Global Change, Homeland Security, Human Health and Ecosystems, Human Health Risk Assessment,
18 and Pesticides and Toxics

19 Goal 5: Compliance and Environmental Stewardship—Sustainability

20 Mr. Zarba then presented a pie chart that identified the President's FY 2009 budget for ORD by EPA
21 strategic goal: 15% is allocated to Goal 1, 18% to Goal 2, 7% to Goal 3, 55% to Goal 4, and 4% to Goal
22 5. He then provided the breakdown for the budget allocated to Goal 4: 26% for Human Health and
23 Ecosystems, 8% for Human Health Risk Assessment, 7% for Homeland Security, 5% for Pesticides and
24 Toxics, 3% for Global Change, 3% for Computational Toxicology, 2% for Endocrine Disruptors, and 2%
25 for Fellowships. Mr. Zarba explained that the size of the pie slices have changed little in the past decade.
26 Although ORD priorities have minimal effect on the size of the pie slice, ORD does have flexibility in
27 determining priorities within each research area. He noted that NCER has a piece in each area.

28 Referring to a graph of ORD's budget trend, Mr. Zarba commented that ORD's budget has been relatively
29 constant over the past 10 years. It is expected that the budget will continue this trend in the future. When
30 examining ORD's budget trend in terms of constant 1999 dollars, ORD's budget has actually declined
31 from a high of \$577.5 million in 2003 to an estimated \$409.2 million in 2009. To ensure that ORD can
32 continue to provide the scientific foundation for Agency decisions, ORD is taking steps to reduce the
33 administrative costs associated with supporting science and maximize the funding available for science.

34 The focus areas for research supported by funding through grants, fellowships, and contracts include:
35 Particulate Matter, Global Change, Human Health (including the Children's Health and Tribal Centers),
36 Endocrine Disruptors, Computational Toxicology, Drinking Water, Ecological Services, Sustainability,
37 Nanotechnology, and Exploratory Research. Dr. Sanders mentioned that the funding for Ecological
38 Services has been declining, but he hopes to continue that research in the future. He also noted that the
39 Exploratory Research budget has been devoted to Nanotechnology Research for the past several years.

1 NCER's multimedia research areas include: Nanotechnology, Sustainability, Global Climate Change,
2 Computational Toxicology, Ecosystem Services, and Environmental Indicators. Dr. Sanders noted the
3 integrated multidisciplinary research is the new direction for NCER-funded research. NCER is able to
4 incorporate this concept quickly by writing it into Requests for Applications (RFAs).

5 NCER's key extramural programs include the Science To Achieve Results (STAR) Program (including
6 targeted research grants through RFAs, exploratory/futures grants, graduate fellowships, and competed
7 centers), Fellowship Programs (Greater Research Opportunities [GRO]); People, Prosperity, and the Plant
8 (P3) Program, and Small Business Innovation Research (SBIR) contracts.

9 There were two 2008 STAR Research Announcements in Air Quality:

10 ✧ Near Roadway Air Pollution (Closed).

11 ✧ Dynamic Air Quality Management (September 2008).

12 The strategic directions for NCER's Air Quality Research include moving toward multi-pollutant air
13 research, continuing the PM Centers (recompete in 2009), and investigating health effects of long-term
14 particulate matter exposure (continuing the MESA-Air Study).

15 There were four 2008 STAR Research Announcements in Human Health:

16 ✧ Children's Environmental Health and Disease Prevention Research (with the National Institute of
17 Environmental Health Sciences [NIEHS]) (May 2008).

18 ✧ Exposure Assessment: Research for Understanding and Assessing Human Exposure in Longitudinal
19 Studies (May 2008).

20 ✧ Research for Outcomes and Accountability: Development of Novel Environmental Health Outcome
21 Indicators (June 2008).

22 ✧ Community-based Cumulative Risk Assessment Research (September 2008).

23 The strategic directions for NCER's Human Health Research include shifting from centers to individual
24 grants in sensitive subpopulations, continuing the health outcomes indicators research with a new RFA on
25 exposure, and focusing on molecular indicators in biomarkers research.

26 There were a total of three 2008 STAR Research Announcements in Ecosystems, Water Quality, and
27 Drinking Water:

28 ✧ 1 Ecosystems RFA—Enhancing Ecosystems Services from Agricultural Lands: Developing Tools for
29 Quantification and Decision Support (June 2008). The strategic focus will be on collaboration with
30 ecology/economics.

31 ✧ 1 Water Quality RFA—Ecology and Oceanography of Harmful Algal Blooms (EcoHAB) with the
32 National Oceanic and Atmospheric Administration, National Science Foundation (NSF), Office of
33 Naval Research, and National Aeronautics and Space Administration (Closed). The strategic
34 direction will be to continue the interagency EcoHAB Program.

35 ✧ 1 Drinking Water RFA—Innovative and Integrative Approaches for Advancing Public Health
36 Protection Through Water Infrastructure Sustainability (Closing July 29, 2009). The strategic
37 direction will be to continue SBIR emphasis on small systems and to explore research on nano-
38 enabled sensors for drinking water systems.

1 Additional 2008 STAR Research Announcements included:

- 2 ✧ Safe Products and Pesticides RFA—Exploratory Investigations in Food Allergy (R21) through the
3 National Institute of Allergy and Infectious Diseases (Closed). The strategic direction will be to
4 continue emphasis on biotechnology and allergenicity through 2009 and to support Office of
5 Prevention, Pesticides, and Toxic Substances (OPPTS) regulations.
- 6 ✧ Endocrine Disrupting Chemicals—The program focus is moving from screening and testing to an
7 emphasis on real-life effects and exposure links.
- 8 ✧ Global Climate RFAs—Consequences of Global Change for Water Quality (Closed), Global Change
9 and Impact on Allergic Disease (May 2008), Adapting to Global Change: Air Quality (June 2008),
10 and Approaches to Identify and/or Evaluate Potential Environmental Impacts from the Geologic
11 Sequestration of Carbon Dioxide (July 2008). The research will continue to focus on air quality and
12 aquatic impacts of global change.
- 13 ✧ Hazardous Waste—Grants emphasize nanomaterials fate and transport work and the SBIR solicitation
14 includes a focus on sensors, treatment, and remediation.
- 15 ✧ Sustainability—The strategic directions include the P3 Program and the Collaborative Network for
16 Sustainability (developing synergies across NCER stressing systems approaches and prevention).
- 17 ✧ Homeland Security—SBIR solicitation includes nano-based sensors for drinking water and fomites.
- 18 ✧ Computational Toxicology—The strategic directions include approaches to integrate methods into
19 environmental protection, and evolution of toxicology from animal models to cell culture-based
20 models.
- 21 ✧ Fellowships RFAs—STAR Graduate Fellowships (July 2008), and GRO Graduate and
22 Undergraduate Fellowships (August 2008).
- 23 ✧ Exploratory/Nanotechnology RFA—Investigating Environmental Effects of Manufactured
24 Nanomaterials: A Joint Research Solicitation, EPA, NSF, and Department of Energy (September
25 2008).

26 NCER's Fellowship Programs include the STAR Graduate Fellowships, GRO Undergraduate
27 Fellowships, American Association for the Advancement of Science (AAAS) Fellowships, American
28 School of Public Health (ASPH) Fellowships, and the Marshall Scholars Program. Dr. Sanders noted that
29 the STAR Fellowships are very competitive. They are tenable at any accredited U.S. college or university
30 for 2-year Master's or 3-year doctoral degrees. The focus is environmental management, including
31 physical, biological, and social sciences as well as engineering. The stipend is \$37,000 per year (tuition
32 allowance and stipend plus \$5,000 expenses).

33 Unlike previous years, the GRO Fellowships now focus only on undergraduates based on the advice
34 provided by the BOSC review. These fellowships are tenable at institutions receiving less than \$35
35 million in federal funding. They are 2-year fellowships for the last 2 years of undergraduate study. The
36 majors include environmental science, physical or biological sciences, computer science, environmental
37 health, social science, mathematics, or engineering. The stipend is \$17,000 per year and the program
38 includes a summer paid internship that allows the fellows to work in an EPA laboratory (\$7,500).

39 The P3 Student award supports innovation in science and technology for sustainability. It involves a
40 competition among teams of university students that design, research, and develop a scientific, policy, or
41 technical solution to a sustainability challenge in the developing and developed world. The program

1 builds capacity in the next generation by integrating sustainability concepts into fundamental education
 2 and creating a future workforce with an awareness of the impacts of their work on economy, society, and
 3 the environment, to work in a multidisciplinary framework, and to make collaborative interdisciplinary
 4 decisions. The P3 Program also builds team partnerships because the interdisciplinary university teams
 5 are encouraged to partner with industry, nonprofits, and government organizations.

6 The SBIR Program was created in 1982 to strengthen the role of small business in federally funded R&D
 7 and to develop a stronger national base for technical innovation. U.S. for-profit firms with fewer than 500
 8 employees are eligible for SBIR awards. SBIR is a two-phase program—Phase I (6 months,
 9 \$70K/contract) involves feasibility/proof-of-concept and Phase II (15 months, \$255-\$320K/contract)
 10 involves development and commercialization. Dr. Sanders commented that EPA’s SBIR Program is
 11 modest compared to those of some other federal agencies.

12 Referring to the chart of NCER’s new organizational structure, Dr. Sanders stated that NCER now has
 13 five divisions—Peer Review Division, Applied Sciences Division, Technology & Engineering Division
 14 Health Research & Fellowship Division, and Research Support Division. Four new Division Directors
 15 have been hired and the search for a new Director for the Health Research & Fellowships Division is
 16 underway. Sherry Sterling is the new Peer Review Division Director, Dr. Darrell Winner is the new
 17 Applied Science Division Director, Gail Bentkover is the new Technology & Engineering Division
 18 Director, and Chris Bullock is the new Research Support Division Director. Alva Daniels, Senior Science
 19 Advisor, is acting as the Health Research & Fellowships Division Director until that position is filled. Dr.
 20 Sanders mentioned that NCER is ready to move forward with its new directions now that most of these
 21 management positions have been filled.

22 Dr. Winner explained that three (Clean Air, Global Change, and Drinking Water) of the five areas in the
 23 Applied Science Division are funded (Water Quality and Ecosystems are not funded). The Clean Air
 24 Research includes the PM Research Centers, epidemiological research on atherosclerosis and air
 25 pollution, atmospheric research, and one-half of the funding for the Health Effects Institute. The Global
 26 Change Research investigates the potential impacts of climate change and adaptation options, including
 27 air quality, water quality, and human impacts. The Drinking Water Research effort includes identifying
 28 and quantifying pathogens in drinking water as well as research on water infrastructure and source water
 29 protection and carbon sequestration. He noted that funding for ecosystems research was eliminated in FY
 30 2005, but NCER would like to fund research on assessing ecosystem function and condition.

31 Ms. Sterling stated that the Peer Review Division is responsible for organizing, managing, and conducting
 32 peer reviews for the Center’s investigator-initiated research grants and centers, fellowship applications,
 33 and SBIR proposals. The Division also provides staff support to the AA for ORD for issues related to
 34 peer review across ORD, including the development of policy guidance for the conduct of peer reviews
 35 across the spectrum from research goals to research products. Other functions of the Division include
 36 managing and conducting peer reviews for the Agency’s competitive research solicitations.

37 Ms. Bentkover explained that the Technology & Engineering Division is strategically positioned to
 38 interface between research and application, providing leadership in the areas of technology and
 39 sustainability. The Division’s research grants are in the areas of technology and engineering, including
 40 nanotechnology, sustainability, green chemistry/green buildings, and waste. The P3 student design
 41 competition, SBIR Program, and Collaborative Network for Sustainability Program are managed by this
 42 Division. Additionally, this Division takes a leadership role in other Agency-wide initiatives such as the
 43 Environmental Technology Council (ETC) and the Sustainability Outcomes and Indicators Workgroup.

44 Mr. Bullock stated that the Research Support Division is responsible for the activities that support
 45 NCER’s research programs and includes administrative and conference support, education and training,
 46 Senior Environmental Employment (SEE) Program coordination, human resources, travel, and
 47 information systems and Web management. The Division provides administrative and programmatic

1 support to address needs of the other NCER Divisions. In addition, the Division directly supports the
2 administrative needs of the technical staff, including compiling information for programmatic reviews,
3 corresponding with grantees to share information and obtain materials for program workshops, and
4 tracking reports and other information for active grants. The Division consists of three informal teams—
5 Information Management Team, Administrative Support Team, and Financial Support Team—that are
6 responsible for the daily activities that directly affect the efficient operation of NCER.

7 Ms. Daniels explained that the Health Research & Fellowship Division manages grants for research
8 projects in the health sciences, including those funded in support of ORD's Human Health, Safe
9 Pesticides/Safe Products, and Endocrine Disruptors MYPs. The Division also is responsible for the
10 Fellowship Programs, including STAR, GRO, AAAS, and ASPH fellowships and Marshall Scholars
11 Program.

12 Ms. Daniels indicated that, in addition to the questions in the charge, NCER is seeking advice from the
13 BOSC on how to make the biggest impact with its limited resources. How can NCER influence others to
14 promote and advocate environmental technology development? The strategic direction component of the
15 Subcommittee charge includes two aspects. The first aspect seeks feedback on NCER's suggestion that
16 the BOSC Executive Committee serve as one of the external review panels to identify emerging research
17 areas. NCER also is seeking input on a potential methodology for prioritizing emerging research areas
18 and a process for incorporating the highest priority areas into the Center's existing research portfolio.
19 The second aspect seeks input on NCER's decision to focus the GRO Fellowship Program on
20 undergraduates as well as advice on the development of metrics to assess the future impact(s) of the
21 realigned Fellowship Programs.

22 Ms. Daniels explained that, prior to the face-to-face meeting in February, the Subcommittee members
23 would be receiving some examples of scientific leadership, budget data, information on NCER's grants
24 portfolio, information about past RFAs in exploratory research, and a list of recommendations relevant to
25 NCER (extramural research) from all of the BOSC program reviews and how NCER has responded to
26 these recommendations. She asked if the Subcommittee needed any additional information. When no
27 specific requests were offered, Dr. Philbert encouraged the Subcommittee members to notify him and Ms.
28 Peterson if they need any additional material for the review.

29 Dr. Sallie Keller-McNulty asked about NCER's multimedia research. Dr. Sanders replied that it is
30 research that moves beyond looking at single media. Dr. Keller-McNulty asked if this was cross-
31 disciplinary research and Dr. Sanders confirmed that it was. She then asked Dr. Sanders to elaborate on
32 what NCER means by sensitive populations. Dr. Sanders responded that sensitive populations include
33 low-income populations and those with health disparities, populations affected by environmental justice
34 issues, as well as life-stage (children and older adults). Mr. Zarba added that sensitive populations also
35 include individuals with compromised immune systems.

36 Dr. Keller-McNulty asked if the project investigating food allergies was considered exploratory research.
37 Dr. Sanders replied that it has not been funded under Exploratory Research. Dr. Keller-McNulty asked if
38 there was a portfolio of exploratory research scattered among the various programs. Ms. Daniels
39 responded that there is an effort underway to identify research within the programs that appears to address
40 emerging areas. Dr. Sanders added that there may be elements of exploratory research within the
41 different programs. Because the Exploratory Research budget has been devoted exclusively to
42 Nanotechnology Research, there has been no opportunity to pursue other exploratory research topics.
43 NCER has not developed a formal process for identifying topics for Exploratory Research because there
44 has been no funding available for such research.

45 Because the agenda mentioned the term "accelerating transformational science," Dr. Sanders wanted to
46 spend a few moments on this topic. Accelerating transformational science means moving beyond what

1 ORD has traditionally done to make revolutionary leaps forward. NCER wants to work with creative
2 individuals in the academic community to achieve these substantial strides forward.

3 Dr. Sanders thanked the Subcommittee members for their attention and the effort they are putting forth on
4 this review.

5 Dr. Dennis Clifford asked about the size of the Fellowship Programs. Will the Subcommittee get more
6 detail on the budget? Ms. Daniels responded that additional information on the budget would be provided
7 in the materials for the review. Dr. Philbert asked if NCER had any information on how many of the
8 fellows pursue a career in science. Ms. Daniels replied that NCER is trying to figure out the best way to
9 maintain contact with the students after their fellowships and how to efficiently collect such information.

10 Dr. Hansen asked for clarification as to why NCER is looking to establish an agenda for Exploratory
11 Research. Dr. Sanders responded that NCER aspires to expand its Exploratory Research portfolio and is
12 working on ideas for making that happen. Mr. Zarba commented that obtaining additional funding for
13 Exploratory Research would require the support of ORD management. Dr. Hansen commented that the
14 exploratory research at the Electric Power Research Institute (EPRI) was a top-down initiative. The
15 budget for exploratory research was mandated and monitored carefully to ensure that it was used for
16 exploratory research. Dr. Sanders confirmed that NCER will have to be creative to do more with the
17 resources it receives. Mr. Zarba noted that the bigger research programs take less of a hit than smaller
18 programs when the budget declines. Pointing out that the Nanotechnology Research efforts have been
19 funded for a number of years, Dr. Keller-McNulty wondered if it was mature enough to move into a core
20 program and compete for funding. Mr. Zarba agreed that the research may be maturing but NCER is not
21 free to make that choice.

22 **Preparation for Face-to-Face Meeting**

23 *Dr. Martin Philbert, University of Michigan, NCER Standing Subcommittee Chair*

24
25 Dr. Philbert thanked the NCER staff members for their presentations. He asked the Subcommittee
26 members to send their requests for additional information to Ms. Peterson. Dr. Keller-McNulty asked if it
27 would be possible to receive a list of the items that will be sent to the Subcommittee prior to the February
28 meeting. Ms. Daniels agreed to provide the list of materials to Ms. Peterson, and she will forward it to the
29 Subcommittee. Ms. Peterson said that the binders containing the materials will be distributed prior to the
30 February meeting.

31 Dr. Philbert stated that he would prefer to wait to make the writing assignments. He asked if there were
32 any final questions or requests for additional materials. When there were none, he thanked the
33 participants for their participation and adjourned the call at 2:56 p.m.

34 **Action Items**

- 35
36 ✧ Subcommittee members will submit their travel preferences form to Ms. Peterson as soon as possible.
37
38 ✧ Subcommittee members will track their hours for the review on the homework sheets and submit
39 them to Ms. Peterson at the face-to-face meeting in February. Ms. Peterson will track the hours for
40 the conference call and face-to-face meeting.
41
42 ✧ Ms. Daniels will provide a list of the materials to be sent to the Subcommittee to Ms. Peterson.
43
44 ✧ Ms. Peterson will distribute the list of the materials to be sent to the Subcommittee to the
45 Subcommittee members.
46
47 ✧ Subcommittee members will send requests for additional information/materials to Ms. Peterson.

PARTICIPANTS LIST

Martin Philbert, Ph.D., Chair

Professor
Department of Environmental Health
Sciences
University of Michigan
1420 Washington Heights
Ann Arbor, MI 48109-2029
Telephone: (734) 763-4523
Fax: (734) 763-7105
E-mail: philbert@umich.edu

David B. Baker, Ph.D. (not present)

Director
National Center for Water Quality
Research
Heidelberg College
310 E Market Street
Tiffin, OH 44883
Telephone: (419) 448-2941
Fax: (419) 448-2345
E-mail: dbaker@heidelberg.edu

Dennis A. Clifford, Ph.D.

Director
Department of Civil and Environmental
Engineering
Cullen College of Engineering
University of Houston
Engineering Building 1
Houston, TX 77204-4003
Telephone: (713) 743-4266
Fax: (713) 743-4260
E-mail: DACliff@central.uh.edu

Adam Finkel, Ph.D. (not present)

Professor
Woodrow Wilson School of Public
and International Affairs
Princeton University
402 Robertson Hall
Princeton, NJ 08544
Telephone: (609) 258-4828 (M/W/F)
(732) 235-9754 (T/R)
Fax: (609) 258-6082
E-mail: afinkel@princeton.edu

D. Alan Hansen, Ph.D.

Manager
Tropospheric Studies
Electric Power Research Institute
P.O. Box 10412
Palo Alto, CA 94303
Telephone: (650) 855-2738
Fax: (650) 855-2377
E-mail: ahansen@epri.com

Sallie Keller-McNulty, Ph.D.

Dean
George R. Brown School of Engineering
Rice University
P.O. Box
MS-364
Houston, TX 77251-1892
Telephone: (713) 348-4009
Fax: (713) 348-5300
E-mail: sallie@rice.edu

David Rejeski, M.E.D., M.P.H.

Director
Foresight and Governance Project
Woodrow Wilson International
Center for Scholars
1300 Pennsylvania Avenue, NW
Washington, DC 20004
Telephone: (202) 691-4255
Fax: (202) 691-4001
E-mail: david.rejeski@wilsoncenter.org

Seth Tuler, Ph.D. (not present)

Researcher
Social and Environmental Research Institute, Inc.
278 Main Street, Room 404
Greenfield, MA 01301
Telephone: (413) 773-9955
E-mail: sptuler@seri-us.org

Subcommittee Designated Federal Officer

Susan Peterson

U.S. Environmental Protection Agency
Office of Science Policy
Ariel Rios Building (8104R)
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Telephone: (202) 564-1077
E-mail: peterson.susan@epa.gov

EPA Attendees

Gail Bentkover

U.S. Environmental Protection Agency
Office of Research and Development
National Center for Environmental Research
(8722F)
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Telephone: (202) 343-9511
E-mail: bentkover.gail@epa.gov

Chris Bullock

U.S. Environmental Protection Agency
Office of Research and Development
National Center for Environmental Research
(8727F)
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Telephone: (202) 343-9510
E-mail: bullock.chris@epa.gov

Alva Daniels

U.S. Environmental Protection Agency
Office of Research and Development
National Center for Environmental
Research (8701F)
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Telephone: (202) 343-9895
E-mail: daniels.alva@epa.gov

Charles Noss, Sc.D.

U.S. Environmental Protection Agency
Office of Research and Development
(E205-09)
Research Triangle Park, NC 27711
Telephone: (919) 541-1322
E-mail: noss.charles@epa.gov

William Sanders, III, Dr.P.H.

U.S. Environmental Protection Agency
Office of Research and Development
National Center for Environmental Research
Ariel Rios Building (8701F)
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Telephone: (202) 343-9667
E-mail: sanders.william@epa.gov

Tara Porter

U.S. Environmental Protection Agency
Office of Research and Development
National Center for Environmental Research
(8701F)
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Telephone: (202) 343-9640
E-mail: porter.tara@epa.gov

Sherry Sterling

U.S. Environmental Protection Agency
Office of Research and Development
National Center for Environmental Research
(8725F)
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Telephone: (202) 343-9771
E-mail: sterling.sherry@epa.gov

Darrell Winner, Ph.D.

U.S. Environmental Protection Agency
Office of Research and Development
National Center for Environmental Research
(8726F)
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Telephone: (202) 343-9748
E-mail: winner.darrell@epa.gov

Chris Zarba

U.S. Environmental Protection Agency
Office of Research and Development
National Center for Environmental Research
Ariel Rios Building (8721F)
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Telephone: (202) 343-9691
E-mail: zarba.christopher@epa.gov

Contractor Support

Beverly Campbell

The Scientific Consulting Group, Inc.
656 Quince Orchard Road, Suite 210
Gaithersburg, MD 20878
Telephone: (301) 670-4990
E-mail: bcampbell@scgcorp.com

Others

Aaron Lovell
Inside EPA

Robin Lynch

Carl Maxwell
American Chemical Society

DRAFT

NCER STANDING SUBCOMMITTEE

AGENDA

January 12, 2009

1:00 – 3:00 PM Eastern Time

Participation by Teleconference Only

866-299-3188

Code: 202-564-1077#

1:00 - 1:15 PM	Welcome - Introduction of Subcommittee Members - Overview of Subcommittee Charge	Dr. Martin Philbert, Subcommittee Chair
1:15 - 1:20 PM	Administrative Procedures	Susan Peterson, Subcommittee DFO
1:20 - 1:50 PM	Overview of ORD Research Program	Dr. Charles Noss ORD/NPD
1:50 - 2:00 PM	Public Comment	
2:00 – 2:45 PM	NCER Reorganization and Vision “Accelerating Transformational Science”	Dr. William Sanders, Director, NCER and Division Directors
2:45 – 3:00 PM	Preparation for Face-to-Face Meeting Meeting - Discuss Writing Assignments - Identify Additional Information Needs	Dr. Martin Philbert, Subcommittee Chair
3:00 PM	Adjourn	