

**NATIONAL EXPOSURE RESEARCH LABORATORY (NERL)
STANDING SUBCOMMITTEE****Conference Call Summary
Wednesday, November 28, 2007
2:00 p.m. – 4:00 p.m. Eastern Time****Welcome**

Dr. Kenneth L. Demerjian, State University of New York, Albany, Subcommittee Chair

Dr. Kenneth Demerjian, Chair of the National Exposure Research Laboratory (NERL) Standing Subcommittee and a member of the Board of Scientific Counselors (BOSC) Executive Committee, welcomed the participants to the conference call. This was the first public conference call for the NERL Standing Subcommittee. A face-to-face meeting will be held December 11–12, 2007, in Research Triangle Park, North Carolina. The purpose of today's call was to provide the Subcommittee with background information on the Environmental Protection Agency's (EPA) Office of Research and Development (ORD) and NERL.

Introduction of Subcommittee Members

Dr. Demerjian asked the Subcommittee members to introduce themselves and describe their areas of expertise:

- ✍ Kenneth Demerjian, State University of New York, Albany—area of expertise is chemical kinetics and mechanisms of the atmosphere.
- ✍ Steve Bartell, E2 Consulting Engineers, Inc., and the University of Tennessee Department of Ecology and Evolutionary Biology—background is in aquatic ecology with an emphasis on ecosystem dynamics, ecological modeling, and risk assessment.
- ✍ Joe DePinto, from Limno-Tech, an environmental consulting firm, and the University of Michigan School of Natural Resources and Environment—expertise is in the area of fate and transport and exposure modeling in aquatic systems.
- ✍ Michelle Frey, from PureSense Environmental, Inc., a company that specializes in environmental monitoring and analysis for real-time systems with a focus on agriculture—background is in environmental engineering, in drinking water regulation, occurrence, fate, and transport and treatment technologies and assessing the effectiveness of control of certain types of contaminants.

Dr. Douglas Dockery, a member of the Subcommittee, was traveling abroad and was not on the call, but he plans to attend the face-to-face meeting. Dr. Dockery is an epidemiologist and currently serves as chair of the Department of Environmental Health at the Harvard School of Public Health. His expertise is in air pollution exposures and their effects on human health outcomes.

NERL Participants

- ✍ Larry Reiter, Director of NERL—background is in pharmacology and toxicology with the majority of his research in neurotoxicology.
- ✍ Rochelle Araujo, Associate Director for Ecology, NERL—is a systems ecologist with areas of emphasis in microbial processes and oceanography.
- ✍ Linda Sheldon, Associate Director for Human Health, NERL—background is in environmental chemistry and analytical chemistry; she has worked to understand the factors leading to human exposure for the past 25 years.
- ✍ Jewel Morris, Deputy Director of NERL—background is in environmental science and engineering.
- ✍ Bob Dyer, Director of the Research Planning and Coordination Staff, NERL.
- ✍ Roy Fortmann, Acting Director of the Human Exposure and Atmospheric Sciences Division, NERL—background is in environmental chemistry, analytical chemistry, and human health exposure research.
- ✍ David Kryak, Director of Air, Mercury, and Global Research, NERL.
- ✍ David Mobley, Deputy Director of the Atmospheric Modeling Division, NERL—background is in environmental engineering.
- ✍ Ken Schere, Senior Science Advisor in the Atmospheric Modeling Division—background is in urban and regional modeling.
- ✍ Fred Hauchman, Director of the Microbiological and Chemical Exposure Assessment Research Division, NERL/Cincinnati, Ohio.
- ✍ Jim Owens, Associate Director of the Microbiological and Chemical Exposure Assessment Research Division, NERL/Cincinnati, Ohio.
- ✍ Florence Fulk, Acting Director of the Ecological Exposure Research Division, NERL/Cincinnati, Ohio.
- ✍ Eric Weber, Acting Director of the Ecosystems Research Division, NERL/Athens, Georgia—background is in environmental organics.
- ✍ Dan Heggem, Acting Director of the Environmental Sciences Division, NERL/Las Vegas, Nevada.

Overview of Subcommittee's Objectives

The Subcommittee's objective is to provide NERL feedback on its future plans and to serve as a sounding board for the NERL laboratories as issues arise. A specific set of charge questions will be developed for each area reviewed by the Subcommittee.

Administrative Procedures and NERL Subcommittee Background

Ms. Susan Peterson, U.S. Environmental Protection Agency (EPA)/Office of Research and Development (ORD), Designated Federal Officer (DFO)

Ms. Susan Peterson, Designated Federal Officer (DFO) for the NERL Standing Subcommittee, thanked the Subcommittee members for their participation in the first meeting of the Subcommittee. As the DFO for the Subcommittee, Ms. Peterson is responsible for ensuring that the Subcommittee complies with the Federal Advisory Committee Act (FACA).

For the past 3 years, the BOSC Executive Committee has reviewed research programs across ORD laboratories and centers. These are point-in-time reviews that address one ORD research program; the Subcommittees for these reviews are disbanded after the review is completed. Through this process, BOSC and ORD became interested in establishing BOSC subcommittees that have in-depth knowledge of an individual laboratory or center and can provide regular feedback to the laboratory or center. These standing subcommittees are not meant to overlap the BOSC program reviews. The BOSC Executive

Committee decided to form two pilot subcommittees, one for an EPA center and one for an EPA laboratory. NERL is the laboratory that was selected. The BOSC Executive Committee anticipated that the standing subcommittees would have one face-to-face meeting each year with conference calls as needed throughout the rest of the year. These conference calls will be public calls to discuss topics specific to the particular laboratory or center.

The BOSC is a Federal Advisory Committee that provides independent, scientific peer review and advice to EPA's ORD, and as such, is subject to the rules and requirements of FACA. The NERL Subcommittee has been asked to respond to a set of specific charge questions as part of the review of NERL and to provide a report for the BOSC Executive Committee's deliberation. The Executive Committee has the authority to evaluate the Subcommittee's report, revise it as necessary, and submit it to ORD. The role of the BOSC is to provide advice and recommendations to ORD. The rights of decision making and program implementation remain with the Agency. This Subcommittee has five members, including the chair. Today the Subcommittee is having its first conference call. The date and time for the second conference call will be determined at the December 11–12, 2007, face-to-face meeting in Research Triangle Park, North Carolina.

All meetings and conference calls involving substantive issues—whether in person, by phone, or by e-mail—that include one-half or more of the Subcommittee members must be open to the public, and a notice must be placed in the *Federal Register* at least 15 days prior to the call or meeting. The Subcommittee Chair and DFO must be present at all conference calls and meetings. All advisory committee documents are made available to the public.

Subcommittee members should have received a copy of the agenda for this call, the NERL draft exposure framework document, the ORD/NERL 101 presentation, the charge questions, and a draft agenda for the face-to-face meeting. Subcommittee members also will receive a homework sheet for the period of November 27 to December 12. Subcommittee member travel currently is being processed, and e-tickets will be sent soon to the members. At the face-to-face meeting, a van will be available to transport Subcommittee members from the hotel to EPA and back. Subcommittee members are encouraged, at least for the first day of the meeting, to use the shuttle to become familiar with the route to EPA and to avoid any security issues. On the second day, Subcommittee members with rental cars may wish to drive to EPA so they can leave directly for the airport.

Ms. Peterson reported that no requests for public comment were submitted prior to the call, but the agenda allows time for public comment at 3:00 p.m. She will call for public comments at that time, and each comment should be limited to 3 minutes. Only comments will be accepted.

ORD/NERL Overview

Dr. Larry Reiter, EPA, ORD, Director of the NERL

Dr. Larry Reiter thanked Dr. Demerjian and the other Subcommittee members for agreeing to serve on the NERL Subcommittee. As NERL works through different organizational, scientific, and programmatic issues, the Subcommittee's feedback will be very useful. NERL is very much looking forward to having a long-standing relationship with this Subcommittee.

ORD has 1,915 employees (about 10% of the EPA workforce) with a budget of \$557 million for 2007, \$70 million of which is administered through the Science To Achieve Results (STAR) Program, EPA's competitive extramural grants program. ORD has 13 laboratories or research facilities across the United States. This presents management challenges as ORD works to achieve an integrated research program.

To fulfill its mission, ORD: (1) conducts research; (2) provides technical support; and (3) provides leadership. ORD research programs and individual scientists are reviewed based on these criteria.

In 1995, EPA underwent a major reorganization that divided ORD along the risk assessment paradigm. Three national laboratories were created: the National Exposure Research Laboratory (NERL), the National Health and Environmental Effects Research Laboratory (NHEERL), and the National Risk Management Research Laboratory (NRMRL). NHEERL conducts research on outcomes in the source-outcome continuum. NRMRL focuses on pollution prevention and, more recently, on issues related to the science and technology of sustainability. In 1995, two centers were created: the National Center for Environmental Assessment (NCEA) and the National Center for Environmental Research (NCER). NCEA conducts risk assessments, develops risk assessment guidelines, and manages the Integrated Risk Information System (IRIS), the database used to inform risk assessment decisions. NCER houses the STAR Program, EPA's extramural research program. After September 11, 2001, EPA was given responsibility in two homeland security areas: (1) building decontamination, which includes determining when it is safe to reoccupy a building after a natural disaster or a terrorist attack, and (2) water security. ORD's National Homeland Security Research Center (NHSRC) was created to address these issues. The National Center for Computational Toxicology (NCCT) was created to facilitate the incorporation of cutting-edge advances in molecular biology and computational science, and to review different methods for studying the relationship between chemical exposures and health effects, either on human populations or on ecosystems. Cross-organizational interaction and collaboration are critical for developing cross-cutting and integrated programs at the ORD level.

NERL includes six research divisions, three of which focus on human exposure issues and are led by Dr. Linda Sheldon, and three of which focus on ecological exposures and are led by Dr. Rochelle Araujo. Drs. Sheldon and Araujo serve as the Associate Directors of their respective divisions and in essence, serve as team leaders for their divisions. The NERL organizational structure is evolving, and it is hoped that these positions eventually will become official line management positions. Dr. Robert Dyer leads the Research Planning and Coordination Staff. NERL is organized as a soft matrix with the division directors as the line managers who are responsible for implementation of the research plans. Assistant Laboratory Directors are similar to program managers and are responsible for the major areas of research; they work across the divisions as well as with the program and regional offices to ensure that the research NERL conducts is relevant to current priorities and responsive to the specific needs of the client offices.

NERL is headquartered in Research Triangle Park, North Carolina. Two of NERL's divisions focusing on human exposure are located in Research Triangle Park: the Human Exposure and Atmospheric Sciences Division and the Atmospheric Modeling Division. Two divisions are located in Cincinnati, Ohio: the Ecological Exposure Research Division and the Microbiological and Chemical Exposure Assessment Division. The Environmental Sciences Division is located in Las Vegas, Nevada, and the Ecosystems Research Division is located in Athens, Georgia. The different locations present some challenges as NERL works to develop a more integrated research program across the divisions.

NERL's Fiscal Year (FY) 2007 budget was \$98 million. NERL has 456 employees; this number includes 46 scientists in the Atmospheric Modeling Division who are officially National Oceanic and Atmospheric Administration (NOAA) employees; NERL has a long-standing interagency agreement with NOAA and these scientists are housed in NERL and are considered part of NERL. Of the 456 NERL employees, approximately 330 are scientists or scientific managers, and 91 are administrative employees. NERL has about 270 onsite contractors that provide different types of technical support to the intramural programs. At any given time, NERL employs between 30 and 40 postdoctoral fellows. A number of years ago, ORD developed a federal postdoctoral fellowship program that facilitates the hiring of postdoctoral fellows for laboratory work. This program also allows NERL to hire postdoctoral fellows as permanent staff members when the opportunity arises. Another ORD program supports the hiring of retired seniors;

NERL currently has 85 to 90 of these employees. They perform administrative tasks as well as technical duties in the laboratories. One of the major challenges in terms of staffing is the full-time equivalent (FTE) ceiling, which allows the hiring of only a certain number of FTEs. The Agency receives an FTE allocation that is distributed across the program offices, the regions, and ORD. Within ORD, the FTEs are allocated to the different laboratories and centers, and the laboratories and centers then allocate the FTEs to their divisions. NERL works to achieve a balance between being strategic and practical. NERL allocates FTEs to the divisions and the division directors are responsible for managing their FTE ceilings. The direction of exposure science research and future FTE needs are discussed at the laboratory level.

ORD allocates an operating budget to each of the laboratories and centers; these funds then are allocated to the divisions. One very successful program is the capital equipment fund. Each year, ORD sets aside funding from the operating expenses budget. The laboratories and centers submit proposals for capital equipment expenditures, the proposals are ranked, and funding is allocated to the respective laboratories. This program has allowed NERL to purchase cutting-edge equipment that would otherwise be out of reach for an individual laboratory. In addition, funding is allocated to support activities not tied to a specific research program but that provide the infrastructure needed to operate (e.g., information technology staff). A small amount of funding is available for extramural activities such as cooperative agreements or contracts; these funds support extramural research projects that augment NERL's intramural research.

Each federal agency is required to develop a strategic plan. EPA's strategic goals are as follows:

Goal 1: Clean Air and Global Climate Change – Protect and improve air quality to reduce risks to human health and the environment. Reduce greenhouse gas intensity.

Goal 2: Clean and Safe Water – Ensure drinking water is safe. Maintain aquatic ecosystems to provide a healthy habitat for fish, plants, and wildlife and to support recreational activities.

Goal 3: Land Preservation and Restoration – Preserve/restore land by using innovative practices and cleaning up contaminated properties to reduce risks from harmful substances.

Goal 4: Healthy Communities and Ecosystems – Protect, sustain, and restore human health, communities, and ecosystems using comprehensive approaches and partnerships.

Goal 5: Compliance and Environmental Stewardship – Improve environmental performance through compliance with environmental requirements, pollution prevention, and innovation/incentives that promote environmental stewardship.

ORD uses these goals to organize its research programs and allocate funding. NERL's research addresses all five strategic goals. Examples of the drivers behind NERL's research include:

- ☞ Statute at Large: Environmental Research, Development, and Demonstration Authorization Act (authorizes environmental research)
- ☞ Goal 1: Clean Air and Global Climate Change – Clean Air Act; Global Change Research Act/U.S. Global Change Research Program
- ☞ Goal 2: Clean and Safe Water – Clean Water Act; Safe Drinking Water Act

- ✍ Goal 3: Land Preservation and Restoration – Resource Conservation and Recovery Act; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Superfund Amendments and Reauthorization Act (SARA)
- ✍ Goal 4: Healthy Communities and Ecosystems – Federal Insecticide, Fungicide, and Rodenticide Act; Toxic Substances Control Act; Food Quality Protection Act; Federal Food, Drug, and Cosmetics Act; Clean Water Act
- ✍ Goal 5: Compliance and Environmental Stewardship – Emergency Planning and Community Right-to-Know Act

The National Research Council (NRC) released a report in 1997 that recommended that EPA implement a research portfolio balanced equally between core research and problem-driven research. Core research was defined in the report as “investigations that seek to elucidate key physical, chemical, biological... processes that underlie environmental systems, thus providing the basis for responding to a wide range of environmental problems in a comprehensive way.” Core research includes the basic research issues that arise in the course of problem-driven research. NERL leaders also work with the program offices to identify scientific uncertainties and the research that could reduce those uncertainties. Core research better positions the Agency to address specific problems when they arise. Problem-driven research was defined in the NRC report as “investigations that attempt to understand and solve an identified problem.” Problem-driven research arises when scientific information is needed to address a specific problem or regulatory need. EPA has maintained a ratio of 60 percent problem-driven research to 40 percent core research over the years.

Using the Agency’s strategic goals as a departure point, ORD has developed a multi-year planning process. Multi-Year plans (MYPs) are developed for each major long-range research area. MYPs are shaped not only by the Agency’s strategic plan, but also by the Agency’s Annual Performance Plan, by the administrative and priority guidance received from the Office of Management and Budget (OMB), and by the ORD planning process itself.

MYPs currently in place in ORD include:

- ✍ Air
- ✍ Global Change
- ✍ Endocrine Disruptors
- ✍ Mercury
- ✍ Land
- ✍ Safe Pesticides/Safe Products
- ✍ Drinking Water
- ✍ Water Quality
- ✍ Human Health
- ✍ Ecological Research

These are all problem-driven research areas, with the exception of human health and ecological research, the two areas under which NERL conducts its core research. Approximately 4 years ago, ORD implemented a management structure similar to that of NERL with its creation of the National Program Director (NPD) positions. NPDs are senior scientists who provide leadership across ORD; they are responsible for developing the MYPs and for working with OMB on program accountability and also for working with the program offices to identify research priorities. At the laboratory level in NERL, implementation plans are developed for each of these MYP areas. The MYPs are used as a starting point

for identifying the key exposure science questions and for planning research to answer those questions. The implementation plan is the translation of the MYP into specific research goals.

The NPDs work to identify the priority research areas. There are two stages in the planning process. The first involves the interaction between the ORD Executive Council, the NPDs, and the Laboratory and Center Directors. This is where the science priorities for each of the MYPs are determined. This prioritization process relies on input from a number of different arenas, including programs and regions; the EPA Strategic Plan; the Administration's priorities; congressional mandates; BOSC reviews, Science Advisory Board (SAB) and National Academy of Sciences (NAS) input, and other external advice; stakeholders; and NPDs and other leaders. After the priorities are determined, it is the responsibility of each of the laboratories and centers to develop an implementation plan (similar to a business plan). The NPDs work with the laboratories and the centers to determine the best use of the talents and expertise to address the priorities listed in the MYP. After the research program's path has been determined, a variety of sources give feedback on the effectiveness of the research programs. This includes BOSC reviews as well as feedback from the program and regional offices and from OMB, among others. NERL is working to develop implementation plans for each of the major research areas. The Air and Safe Pesticides/Safe Products Research Programs currently are working through this planning and implementation process.

Public Comment

Ms. Susan Peterson, EPA/ORD, DFO

Ms. Peterson called for public comments at 3:00 p.m. There were no public comments offered.

ORD/NERL Overview - Discussion

Dr. Larry Reiter, EPA, ORD, Director of the NERL

Dr. DePinto stated that there seemed to be some overlap between NERL and NHEERL and asked Dr. Reiter to comment on the distinction between the two laboratories. Dr. Reiter responded that the distinction between NERL and NHEERL is clearer on the human exposure side. For example, in terms of the source of environmental concentrations, NERL's responsibility is to understand the cascade from source to dose. The work of the two laboratories interfaces at exposure and dose. In terms of issues related to pharmacokinetics, both laboratories need to be involved. On the environmental or ecological side, the distinction is not as clear. This issue will be covered in more detail during the discussion of the framework document at the face-to-face meeting.

Dr. Demerjian asked Dr. Reiter to explain why the NERL organizational chart showed a number of acting positions. Dr. Reiter responded that the positions to which Dr. Demerjian referred are senior science leadership positions which, in the past, ORD has tried to fill at the Senior Executive Service (SES) level. Unfortunately, the Agency is falling behind in terms of its ability to either capture or retain the number of SES slots needed. This has put NERL in the difficult situation of relying on people in an acting capacity to manage programs. ORD is exploring other options for filling these positions. Dr. Demerjian asked how long NERL's organizational structure had been in place. Dr. Reiter said that it was implemented in 1995 when NERL was created. Prior to 1995, there were approximately 14 different laboratories. Three national laboratories and two national centers were created from those; the majority of those laboratories were assimilated into the three national laboratories.

Discussion of Charge

Dr. Kenneth L. Demerjian, State University of New York, Albany, Subcommittee Chair

Dr. Demerjian confirmed that the Subcommittee members had received a copy of the charge questions prior to the call. He explained that this conference call and the face-to-face meeting will serve as opportunities for NERL to share information on its overall scientific framework, research activities, and the basic structure and approach taken in working toward its mission. NERL has identified the framework document as the focus of this review. Dr. Demerjian summarized the charge questions:

- ✍ Comment on the effectiveness of the NERL exposure framework.
- ✍ What are the core areas of expertise that are required within NERL to effectively conduct human health and ecological exposure research? How are those areas likely to evolve in the future?
- ✍ How can NERL use the exposure framework as a communication tool?
- ✍ Comment on the merits and barriers to conducting exposure-related collaborative multidisciplinary research that will be required to successfully address the full suite of risk assessment and risk management activities.

After reviewing the framework document and having a more in-depth discussion at the face-to-face meeting, it is the Subcommittee's responsibility to address each question as part of its response to the BOSC and ultimately, to NERL. Dr. Demerjian asked if the Subcommittee members had any questions or feedback on the charge questions. No questions or comments were voiced.

Dr. Frey asked why the framework document was developed. Dr. Linda Sheldon explained that the NERL staff thought that something was needed to tie the laboratory's work together. NERL evolved from a number of different laboratories and works in a number of disparate disciplines, including human health and ecology. The framework document defines exposure research, and also details the research conducted by NERL and how it fits together within NERL and within EPA. Dr. Frey said that it sounded like the framework was, in business terms, NERL's business plan. Dr. Sheldon agreed. Dr. Reiter added that context is important. When he first joined the laboratory, high-quality research was being conducted, but there was nothing to connect the research. Dr. Frey asked if NERL had identified its deliverables for the Agency. Dr. Reiter responded that he thought NERL was on its way to identifying specific deliverables. Dr. Frey said it sounded like the framework document was intended to help guide the laboratory toward that, and Dr. Reiter agreed. The framework document will have a major influence on the laboratory implementation process; the principles and concepts from the framework document will be used as a guide to determine how to structure each research program. Dr. Frey asked if the framework was a living document. Dr. Reiter said that because the field of exposure science was still evolving; the framework document would need to be updated as the field changed. Dr. Frey said that it sounded like the framework document was meant to be a solid foundation for NERL's work and that it would be updated as needed. Dr. Reiter agreed.

Dr. Steve Bartell asked if there was any indication that the framework document had altered the way NERL research scientists plan or conduct their daily work. Dr. Sheldon replied that she thought the document was already having an effect. Managers at the top of the laboratory structure now have a better sense of where NERL is headed and how NERL plans to accomplish its goals. Dr. Kryak has been involved in the development of the Air Research Program's implementation plan. The framework document was used to guide the development of the Air Research Program MYP and currently is being used in the development of the Air Research Program implementation plan.

Dr. Araujo addressed an earlier question about the distinction between exposure and effects. The framework serves as a lens through which to view NERL's work; it reinforces that NERL's work needs to be approached from a predominantly exposure perspective; Dr. Sheldon added that much of the past research on the human health side has been approached from a risk assessment perspective. The framework places NERL's research in a context beyond risk assessment, into a context that also includes risk management and an understanding of the impact of our actions.

Dr. Demerjian asked what NERL was hoping to get out of this BOSC review process. Dr. Araujo explained that NERL is seeking feedback on the framework document. Subsequent meetings and conference calls will focus on subsequent sets of charge questions that will build off of the first set. Dr. Demerjian asked if they were expecting the Subcommittee to identify implementation issues in the research programs or gaps in the research. Dr. Sheldon said that she thought those types of issues would be the focus of future meetings. Dr. Reiter added that the first round would focus on the framework document. Specifically, does it give the reader a clear sense of the work NERL is performing and where NERL is headed? The laboratory also would like to know if there are areas of expertise or special skills that will be needed to move the work forward. Dr. Demerjian commented that the NRC report states that because it is impossible to address all the issues, it is important to determine the most critical areas for study. Dr. Reiter did not recall that this point was explicitly stated in the framework, but he said that the concept was a central driver behind the document. NERL has faced a lot of pressure to move its research portfolio to 90 percent problem-driven research and 10 percent core research. Despite this, NERL has kept the percentages steady at 60/40 over the years.

Preparation for the Face-to-Face Meeting

Dr. Kenneth L. Demerjian, State University of New York, Albany, Subcommittee Chair

Review of the Draft Agenda

Dr. Demerjian asked the Subcommittee members if they had any additions to or questions about the draft agenda for the face-to-face meeting. He explained that the first day of the meeting would include presentations to give the Subcommittee members further background on NERL as well as discussion of the draft framework and its implementation. On the second day, the Subcommittee will address the charge questions. There were no additions or suggestions from the Subcommittee. On behalf of the Subcommittee, Dr. Demerjian accepted the draft agenda as the final agenda for the face-to-face meeting.

Dr. DePinto asked if the Subcommittee members would receive additional materials prior to the meeting. Ms. Peterson said that a binder with additional background materials would be sent to the Subcommittee members the following week. Dr. Demerjian suggested that the Subcommittee members begin with the framework document.

Discussion of Writing Assignments

Charge questions will be assigned at the face-to-face meeting, and the first draft response probably will be due within a week of the meeting. The final report from the Subcommittee will discuss the Subcommittee's objective and each of the charge questions.

Identification of Additional Information Needs

Dr. Demerjian asked the Subcommittee members if any additional information was needed. Dr. Frey asked if the Subcommittee members would receive electronic copies of the additional materials. She would prefer to have materials electronically rather than in a binder. Ms. Heather Drumm responded to her query in Ms. Peterson's absence. If requested, all materials can be posted on the BOSC Web Site. Dr. Demerjian proposed that all the materials be posted on the BOSC Web Site and hard copy binders be sent

to Subcommittee members who request them. A binder will be provided at the face-to-face meeting for those Subcommittee members who did not request a binder previously. The Subcommittee members agreed. Ms. Drumm said that she would ask Ms. Peterson to send an e-mail to the

Subcommittee members inquiring about their material format preference. All materials will be made available on the BOSC Web Site.

Next Steps

The NERL Standing Subcommittee face-to-face meeting will be held December 11–12, 2007, in Research Triangle Park, North Carolina.

Closing Remarks

Dr. Demerjian thanked the Subcommittee members for their efforts. He also thanked Dr. Reiter for an excellent presentation and adjourned the call at 3:48 p.m.

Action Items

- ✍ Ms. Peterson will send an e-mail to the Subcommittee members inquiring about their material format preference.
- ✍ All materials will be posted to the BOSC Web Site. Binders will be available at the face-to-face meeting for Subcommittee members who opt for the electronic version of the materials.
- ✍ Subcommittee members will review the background materials prior to the face-to-face meeting, beginning with the framework document.

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**NATIONAL EXPOSURE RESEARCH LABORATORY (NERL)
STANDING SUBCOMMITTEE**

AGENDA

November 28, 2007

2:00 p.m. – 4:00 p.m. Eastern Time

Participation by Teleconference Only

866-299-3188

code: 2025641077#

2:00 - 2:10 p.m.	Welcome <ul style="list-style-type: none">- Introduction of Subcommittee Members- Overview of Subcommittee Objectives	Dr. Kenneth L. Demerjian Subcommittee Chair
2:10 - 2:20 p.m.	Administrative Procedures and NERL Subcommittee Background	Ms. Susan Peterson Subcommittee DFO
2:20 - 3:00 p.m.	ORD/NERL Overview	Dr. Larry Reiter Office of Research and Development (ORD)
3:00 - 3:10 p.m.	Public Comment	
3:10 - 3:40 p.m.	Discussion of Charge	Dr. Kenneth L. Demerjian Subcommittee Chair Dr. Larry Reiter ORD
3:40 - 4:00 p.m.	Preparation for Face-to-Face Meeting <ul style="list-style-type: none">- Review Draft Agenda- Discuss Writing Assignments- Identify Additional Information Needs	Dr. Kenneth L. Demerjian Subcommittee Chair
4:00 pm	Adjourn	