

**US EPA Science Advisory Board Integrated Nitrogen Committee (INC) Public
Teleconference, July 9, 2009
12:00 p.m. – 3:00 p.m. (Eastern Time)**

Committee: The SAB Integrated Nitrogen Committee (See Roster - Attachment A)

Date and Time: July 9, 2009, 12:00 p.m. – 3:00 p.m. (Eastern Time)

Location: Participation by Telephone Only

Purpose: The purpose of the teleconference is to discuss a draft report on an integrated strategy for managing reactive nitrogen.

Attendees: Members of the Integrated Nitrogen Committee (INC)

Dr. James N. Galloway (Chair)

Dr. Thomas L. Theis (Vice-Chair)

Dr. Viney Aneja

Dr. Elizabeth Boyer

Dr. Ellis Cowling.

Dr. Russell Dickerson

Dr. Otto C. Doering III

Dr. Arvin Mosier

Dr. William Moomaw

Dr. Hans Paerl

Dr. Paul Stacey

EPA SAB Staff

Dr. Angela Nugent [Designated Federal Officer (DFO)]

Members of the Public (see Attachment D)

Teleconference Summary:

The teleconference generally followed the meeting agenda (see Meeting Agenda - Attachment C) to discuss the June 22, 2009 INC draft report. The DFO took roll for members of the committee. The Chair of the committee reviewed the Agenda. Several members of the committee (Drs. Dickerson, Galloway, Theis, and Paerl) asked for MS Word versions of the report.

Discussion of report revision issues not addressed during the July 8th teleconference call

The committee reviewed the report revision issues identified in Attachment E and agreed on the action items described in that table. After that discussion, in response to questions from Dr. Galloway, Dr. Moomaw agreed to provide cost figures related to the economic cascade for Table A and to provide needed citation for NEON. Dr. Cowling committed to identifying a metric for forest decline for Table 1 and to providing a reference for the National Academy of Science report on Air Pollution in the United

States. Dr. Galloway will correct Table 1, line 2, so that the location information for acidification effects are corrected (i.e., specify Eastern US)

Identification of major points to be included in report transmittal letter

Dr. Galloway asked committee members for their suggestions regarding major points to be included in the report transmittal letter.

- Target recommendations
- Recommendation that EPA use Oxides of nitrogen (defined as chemically inclusive) and chemically reactive nitrogen compounds as indicators of oxides of nitrogen and consider process to identify them as separate criteria pollutants (need to have parallel language in the report)
-Related issue: Dr. Dickerson will develop paragraph describing current law relating to criteria pollutants and edit recommendation 8 so it will track language in cover letter
- Measuring monitoring NO_y (total oxidized chemically reactive nitrogen) rather than NO_2 as is not monitored and monitoring total ammoniacal nitrogen NH_x which is the sum of NH_3 and NH_4 .
- Agriculture is important source of Nr; EPA should focus on available mandates to bring Nr under control, otherwise, "buck just keeps getting passed"
- Long term monitoring strategy for reactive nitrogen in air and water
- Better handle on biogenic nitrogen budget, including agricultural systems
- Include overarching recommendations
- Science and research recommendations
- Recommendations related to institutional mechanisms. Different potential ways to control reactive nitrogen
- Talk about full range of impacts, health and ecosystem effects, need to use multiple metrics, how there's a need to do something different from what EPA has done before
- Principle of critical loads and critical levels, thresholds being used in Europe

Dr. Galloway noted that he will work with Dr. Theis to develop draft language for the cover letter and explore the possibility of a committee work group to assist with the letter before the next draft of the report is published.

Dr. Galloway reminded committee members that changes to the report were due to the DFO as soon as possible and no later than July 27th.

Informal Public comment

A member of the public, Charles Kovach from the Florida Department of Environmental Protection, requested permission to provide comment. He commended the committee for its valuable work. He supported revisions discussed regarding Recommendation 15 and the committee's decision to develop a section on monitoring integration. He suggested that the committee consider EPA's plans to focus on nitrogen

as part of its Ecosystem Services Research program in the development of the new section being considered for chapter 3 on integrated monitoring. He suggested the committee consider information previously provided on the Tampa Bay TMDL as an additional program to highlight in the report. He noted that he would provide written comments, which will include several citations of potential use to the committee.

Respectfully Submitted:

/Signed/

Angela Nugent
Designated Federal Official

Certified as True:

/Signed/

Dr. James N. Galloway, Chair
SAB Integrated Nitrogen Committee

List of Attachments

Attachment A: Roster of the SAB Integrated Nitrogen Committee

Attachment B: Federal Register Notice

Attachment C: Meeting Agenda

Attachment D: Attendees from the Public Who Requested or Were Provided Call-in Information

Attachment E: Report Revision Issues for Discussion at the July 9, 2009 INC Public Teleconference

Attachment A:

**U.S. Environmental Protection Agency
Science Advisory Board
Integrated Nitrogen Committee**

CHAIR

Dr. James Galloway, Sidman P. Poole Professor of Environmental Sciences
Associate Dean for the Sciences, College and Graduate School of Arts and Sciences,
University of Virginia, Charlottesville, VA

VICE-CHAIR

Dr. Thomas L. Theis, Director, Institute for Environmental Science and Policy,
University of Illinois at Chicago, Chicago, IL

MEMBERS

Dr. Viney Aneja, Professor, Department of Marine, Earth, and Atmospheric Sciences,
School of Physical and Mathematical Sciences, North Carolina State University, Raleigh,
NC

Dr. Elizabeth Boyer, Associate Professor, School of Forest Resources and Assistant
Director, Pennsylvania State Institutes of Energy & the Environment, and Director,
Pennsylvania Water Resources Research Center, Pennsylvania State University,
University Park, PA

Dr. Kenneth G. Cassman, Professor, Department of Agronomy and Horticulture,
Institute of Agriculture and Natural Resources, University of Nebraska, Lincoln, NE

Dr. Ellis B. Cowling, University Distinguished Professor At-Large Emeritus, Colleges of
Natural Resources and Agriculture and Life Sciences, North Carolina State University,
Raleigh, NC

Dr. Russell R. Dickerson, Professor and Chair, Department of Meteorology, The
University of Maryland, College Park, MD

Dr. Otto C. Doering III, Professor, Department of Agricultural Economics, Purdue
University, W. Lafayette, IN

Mr. William Herz, Vice President for Scientific Programs, The Fertilizer Institute,
Washington, DC

Dr. Donald L. Hey, President of The Wetlands Initiative and Director, Wetlands Research, Inc, Chicago, IL

Dr. Richard Kohn, Professor, Animal Sciences Department, University of Maryland, College Park, MD

Dr. JoAnn S. Lighty, Chair and Professor, Chemical Engineering, University of Utah, Salt Lake City, UT

Dr. William Mitsch, Professor, Olentangy River Wetland Research Park, The Ohio State University, Columbus, OH

Dr. William Moomaw, Professor of International Environmental Policy and Director of the Center for International Environment and Resource Policy, The Fletcher School of Law and Diplomacy, Tufts University, Medford, MA

Dr. Arvin Mosier, Visiting Professor, Agricultural and Biological Engineering Department, University of Florida, Mount Pleasant, SC

Dr. Hans Paerl, Professor of Marine and Environmental Sciences, Institute of Marine Sciences, University of North Carolina - Chapel Hill, Morehead City, NC

Dr. Bryan Shaw, Commissioner, Texas Commission on Environmental Quality, Austin, TX

Mr. Paul Stacey, Director, Bureau of Water Management and Land Reuse, Planning and Standards Division, Connecticut Department of Environmental Protection, Hartford, CT

SCIENCE ADVISORY BOARD STAFF

Dr. Angela Nugent, Designated Federal Officer, 1200 Pennsylvania Avenue, NW 1400F, Washington, DC, Phone: 202-343-9981, Fax: 202-233-0643, (nugent.angela@epa.gov)

Attachment B: Federal Register Notice

Science Advisory Board Staff Office; Notification of Two Public Teleconferences of the Science Advisory Board Integrated Nitrogen Committee

[Federal Register: June 24, 2009 (Volume 74, Number 120)]
[Notices]
[Page 30077]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr24jn09-79]

ENVIRONMENTAL PROTECTION AGENCY
[FRL-8922-4]

Science Advisory Board Staff Office; Notification of Two Public
Teleconferences of the Science Advisory Board Integrated Nitrogen
Committee

AGENCY: Environmental Protection Agency (EPA).
ACTION: Notice.

SUMMARY: The EPA Science Advisory Board (SAB) Staff Office announces
two public teleconferences of the SAB Integrated Nitrogen Committee
(INC) to discuss the committee's draft report.

DATES: The SAB INC will conduct two public teleconferences on July 8,
2009 and July 9, 2009. Both teleconferences will begin at 12 p.m. and
end at 3 p.m. (Eastern Time).

ADDRESSES: The teleconferences will be conducted by telephone only.

FOR FURTHER INFORMATION CONTACT: Any member of the public wishing to
obtain general information concerning the two public teleconferences
may contact Dr. Angela Nugent, Designated Federal Officer (DFO), via
telephone at (202) 343-9981 or e-mail at nugent.angela@epa.gov. General
information concerning the EPA Science Advisory Board can be found on
the EPA Web site at <http://www.epa.gov/sab>.

SUPPLEMENTARY INFORMATION: Pursuant to the Federal Advisory Committee
Act, Public Law 92-463 5 U.S.C., App. 2 (FACA), notice is hereby given
that the SAB INC will hold two public teleconferences to discuss its
draft report. The SAB was established pursuant to 42 U.S.C. 4365 to
provide independent scientific and technical advice to the
Administrator on the technical basis for Agency positions and
regulations. The SAB is a Federal Advisory Committee chartered under
the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C., App.
2. The SAB will comply with the provisions of FACA and all appropriate
SAB Staff Office procedural policies.

Background: The SAB INC is studying the need for integrated
research and management strategies to reduce reactive nitrogen in the
environment. At the global scale, reactive nitrogen from human
activities now exceeds that produced by natural terrestrial ecosystems.
Reactive nitrogen both benefits and impacts the health and welfare of

people and ecosystems. Scientific information suggests that reactive nitrogen is accumulating in the environment and that nitrogen cycling through biogeochemical pathways has a variety of consequences. Information about the committee's previous meetings is available on the SAB Web site at http://yosemite.epa.gov/sab/sabproduct.nsf/fedrgstr_activites/Nitrogen%20Project.

The purpose of the teleconferences is for the SAB INC to discuss the committee's draft report addressing the environmental problems presented by reactive nitrogen and providing recommendations related to an integrated nitrogen management strategy.

Availability of Meeting Materials: Agendas and materials in support of the teleconferences will be placed on the SAB Web site at <http://www.epa.gov/sab> in advance of each teleconference.

Procedures for Providing Public Input: Interested members of the public may submit relevant written or oral information for the SAB INC to consider during the advisory process. Oral Statements: In general, individuals or groups requesting an oral presentation at a public teleconference will be limited to three minutes per speaker, with no more than a total of one hour for all speakers. Each person making an oral statement should consider providing written comments as well as their oral statement so that the points presented orally can be expanded upon in writing. Interested parties should contact the DFO, in writing (preferably via e-mail) at the contact information noted above, by July 6, 2009 to be placed on the list of public speakers for the meeting.

Written Statements: Written statements should be received in the SAB Staff Office by July 6, 2009 so that the information may be made available to the Committee members for their consideration. Written statements should be supplied to the DFO in the following formats: one hard copy with original signature, and one electronic copy via e-mail (acceptable file format: Adobe Acrobat PDF, MS Word, MS PowerPoint, or Rich Text files in IBM-PC/Windows 98/2000/XP format). Submitters are requested to provide versions of each document submitted with and without signatures, because the SAB Staff Office does not publish documents with signatures on its Web sites.

Accessibility: For information on access or services for individuals with disabilities, please contact Dr. Angela Nugent at (202) 343-9981 or nugent.angela@epa.gov. To request accommodation of a disability, please contact Dr. Nugent preferably at least ten days prior to the teleconferences to give EPA as much time as possible to process your request.

Dated: June 17, 2009.

Anthony Maciorowski,
Deputy Director, EPA Science Advisory Staff Office.
[FR Doc. E9-14858 Filed 6-23-09; 8:45 am]
BILLING CODE 6560-50-P

Attachment C: Meeting Agenda

**EPA Science Advisory Board
Integrated Nitrogen Committee
Public Teleconference
July 9, 2009, 12:00 p.m. - 3:00 p.m. (Eastern Time)**

Agenda

Purpose: The purpose of the teleconferences is for the SAB INC to discuss a draft report addressing the environmental problems presented by reactive nitrogen and providing recommendations related to an integrated nitrogen management strategy.

12:00 – 12:05	Opening of Teleconference	Dr. Angela Nugent, Designated Federal Officer
12:05 – 12:10	Review of Agenda	Dr. James N. Galloway, Chair Dr. Thomas Theis, Vice-Chair
12:10 - 1:15	Discussion of report revision issues not addressed during the July 8th teleconference call	Committee
1:15 - 2:45	Identification of major points to be included in report transmittal letter	
2:45– 3:00	Summary and Next Steps	Dr. James N. Galloway
3:00	Adjourn	

Attachment D: Attendees from the Public Who Requested Call-in Information

Paul J. Bredwell III P.E.
U.S. Poultry & Egg Association

Holly Campbell
EPA ORD/NHERL

Kate Flahive
EPA

Duane Gangwish
Nebraska Cattlemen - VP Environmental Affairs

Lisa Herschberger
State of Minnesota

John J. Jansen
Principal Scientist
Southern Company

Charles Kovach
Senior Scientist
Florida Department of Environmental Protection, SW District

Patrick McNamara
Region 7 Science Program Aide
Office of the Regional Administrator

Cara Peck
EPA

Karla Perez
Policy Navigation Group

Bruce D. Rodan
US EPA/ORD/OSP

Clifford S. Snyder, PhD, CCA
Nitrogen Program Director
International Plant Nutrition Institute

Allan Stokes
Director, Environmental Programs
National Pork Board

Tamara McCann Thies
Chief Environmental Counsel
National Cattlemen's Beef Association

Rosaura Vega
U.S. Environmental Protection Agency
Office of Wetlands, Oceans, and Watersheds

Attachment E: Report Revision Issues for Discussion at the July 9, 2009 INC Public Teleconference

May Action Item Gaps

	Who identified	Issue/Action item from May INC Meeting	Action Item agreed to at July 9, 2009 call
1)	Russ	Beth was going to send Arvin and me some info on Published CMAQ runs -	Beth will send to Russ and Jim
2)		Melillo comment: P31, L32 – would it be possible to add a column to indicate primary sources of this information	Beth will send citations to Angela
3)		McIsaac comment Page 69, Figure 14: I think it is dangerous to presume a trend from two data points (the 1985 and 2005 maps). I have looked at the full series of maps available on the web, and I agree that there probably is a real trend, but I think it would be better to present and analyze the annual time series, as was done for nitrate. Action item: Beth will Insert table showing time series and include contemporary figure showing spatial pattern, provide to Arvin and Russ	Beth -- will provide tables to show annual time series for nitrate, ammonia, and ammonium

DFO concerns about clarity, communication, and logic with June 22, 2009 INC draft report

1)	p. 96	<p>Finding and recommendation 14 seem to be in the wrong place -- they relate to water programs broadly, not section 2.4.3.4 AN: Suggestion, move it before section 2.4.3.3 -- it seems out of place in 2.4.3.4</p>	<p>Move current 2.4.3.2 after section Aquatic thresholds, remove heading for 2.4.3.5 Move finding and recommendation to end of section 2.4.3.2</p>
2)	p.97-98	<p>Recommendation 98 not clear and potentially problematic Finding 1 Meeting Nr management goals for estuaries, when a balance should be struck between economic, societal and environmental needs, under current federal law seems unlikely. Enforceable authorities over nonpoint source, stormwater, air (in terms of critical loads), and land use are not adequate to support necessary Nr controls. Funding programs are presently inadequate to meet existing pollution control needs. Furthermore, new technologies and management approaches are required to meet ambitious Nr control needs aimed at restoring national water quality. Recommendation 15. INC recommends that EPA reevaluate water quality management approaches to ensure Nr management goals are attainable, enforceable, and affordable and that</p>	<p>Tom Theis will remove last sentence from the recommendation: "This may require changes in the way EPA sets water quality criteria and some compromises in ecosystem goals to accommodate human uses of the air, land and water."</p>

		monitoring and research are adequate to problem definition and resolution, particularly in the development of nitrogen removal technologies.	
3)	p. 98	Major point of text box 3 not clear	Tom Theis will change title to " Total Maximum Daily (Nitrogen) Load" On page 9 5in preceding text will expand brief text introducing text box, and explain how the example shows management and science working together to control nitrogen
4)	p. 99	Finding and recommendation 16 relates to monitoring generally, not water quality monitoring in particular and is not supported by text in 2.4.3.6. Suggestion: move it to section on monitoring more generally	Tom will create new section in chapter 3 near page 151. Section would describe the need for an integrated approach to monitoring. Move finding and recommendation 16 to this new section. Paul will draft an introductory paragraph, include long-term monitoring, continuous monitoring. May mention LTER as an example Paragraph will reference different report recommendations regarding monitoring and make the case for the need for integrated approach.
5)	p. 151	No discussion of rationale for target recommendation 4 -- how was target set?	Paul: will draft text to make rationale transparent, provide references (from earlier in report and for other sources) for section 3.4 and also provide brief text about the rationale for the Executive Summary

