

U.S. ENVIRONMENTAL PROTECTION AGENCY
SCIENCE ADVISORY BOARD
Integrated Nitrogen Committee
Workshop

October 20 – 21, 2008
Washington DC.

The purpose of the workshop is to bring together members of the SAB's Integrated Nitrogen Committee (INC) and additional experts from different sectors to discuss cross-cutting options for integrated nitrogen control. Workshop participants will discuss options presented in the "white paper" *Selected Recommendations and Findings from the Integrated Nitrogen Committee*. The workshop is designed to present background information on INC's draft findings and to provide participants with an opportunity to comment and interact both in plenary and in focused Breakout Sessions.

The INC has assessed reactive nitrogen (Nr) sources, transformations, export and effects, summarized within a nitrogen cascade framework. Further, the INC has identified opportunities for Nr control intervention. The INC's study will address the implications for nitrogen research and risk management. After holding four public face-to face meetings, the INC is now at a point where it would benefit from additional input from outside experts to provide feedback on the white paper.

The workshop will be structured into two rounds of breakout groups followed by summary presentations. Each breakout group will have co-chairs (from INC) to facilitate the discussion, summarize the major points, and present them later at the plenary session.

First Round of Breakout Groups

In the first round of concurrent breakout sessions, participants will assess the rationale and appropriateness of INC's risk reduction strategy and goals, focusing on specific forms of reactive nitrogen and sources.

Breakout Group 1: *NO_x Emissions from Combustion*

- Dr. Russell Dickerson and Dr. JoAnn Lighty, co-chairs

Breakout Group 2 : *Managing Ammonia Emissions*

- Dr. Viney Aneja and Dr. Arvin Mosier, co-chairs

Breakout Group 3: *Urban and Aquatic Nr Discharge*

- Dr. Donald Hey and Mr. Paul Stacey, co-chairs

Breakout Group 4: *Agricultural Aquatic Discharge*

- Dr. Kenneth Cassman and Dr. Hans Paerl, co-chairs

For each of the four themes, the participants to respond to INC's draft findings regarding:

- Estimates of inputs of "new" Nr to the environment
- Transformation, transport and fate of Nr in the environment
- Control points and proposed actions for Nr management
- Appropriateness of rationale and numerical target goals

Second Round of Breakout Groups

In the first second of concurrent breakout groups, participants will participate in cross-cutting exercises aimed at developing integrated frameworks for managing releases of reactive nitrogen into the environment.

Breakout Group 5: Impacts of Land Use on Accumulation and Effects of Reactive Nitrogen in the Environment

- Dr. Elizabeth Boyer and Dr. Ellis Cowling, co-chairs

Breakout Group 6: Integrated Reactive Nitrogen Policies

- Dr. Arvin Mosier and Mr. Paul Stacey, co-chairs

Breakout Group 7: Agroecosystems, Food Security, and Bioproducts

- Dr. Kenneth Cassman and Dr. Richard Kohn, co-chairs

Breakout Group 8: Energy and the Cascading Costs of Reactive Nitrogen

- Dr. Otto Doering and Dr. William Moomaw, co-chairs

For each of these themes, participants will address:

- The benefits, impacts, and implications of these crosscutting issues, and in particular the ancillary, and unintended, impacts among problem-solving approaches
- Technical and regulatory mechanisms for management
- Recommendations for integration and multimedia management
- Policy implications, and the basis for an integrated policy framework for reactive nitrogen

The co-chairs will summarize the breakout sessions in plenary afterwards so that all present can benefit from the breakout sessions. After further discussion, the Integrated Nitrogen Committee will take into consideration the comments of the participants as it prepares its final report.