

# HAPPENINGS at the SAB

*...ensuring a solid technical basis for environmental protection*

Volume 7 Number 12

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## DIRECTOR'S NOTE

This issue of Happenings contains the second in a series of guest editorials that will represent a range of topics and perspectives on the EPA Science Advisory Board (SAB) and its work. This month we feature Dr. Donald Barnes, former SAB Staff Director, who retired from EPA in May. Since June, he and his wife have been teaching English and traveling in China. At our request, he files this report on environmental conditions in the land that 1/6 of world's population call home.

I look forward to any feedback you may have about this issue of Happenings and ideas you may have for future issues.

Vanessa T. Vu, Ph.D.  
Director, Science Advisory Board Staff Office

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GUEST EDITORIAL

## CHINA AND THE ENVIRONMENT



The Chinese environment is lovely. From the magical natural formations of Guilin and the Stone Forest in the south to the man-made wonders of the Great Wall and the Forbidden City in the North, China is rich in environmental splendors.

China is "environmentally challenged". From the socked-in ancient capital of Xi'an (where, it seemed as if, on a clear day you can see another ancient splendor across the street) to the present-day water-stressed capital of Beijing (where 50-year old plans are being revived to rebuild an expanded Grand Canal that would bring the waters of the Yangtze River hundreds of miles north to satisfy the ever-increasing needs of growing urban populations centers), these are a surfeit of environmental problems.

The Chinese authorities are trying to address some of their environmental problems. In the south, the city of Nanning (one of the smaller of the 165 Chinese cities whose populations exceed a million people) has turned against motorbikes, which seemed -- at one time -- like a good way to facilitate travel in the city. Congestion and pollution have exceeded the tolerance level of nearly everyone, so the city fathers have suspended the issuing of any new licenses for the infernal machines. In the north, Beijing's 2008 Olympic Games has stimulated authorities to make (again) bold plans to reduce the effect of dust storms in the capital through a massive replanting of vegetation to hold soil in place. (Earlier efforts have seen limited success, in part, due to the unsustainable water demands of replanted forests in a water-short region.) Further, the government recently announced ambitious plans to shift a large fraction of coal users in the capital to natural gas as an energy source -- or to move the offending industries out of the city. (We'll see.)

The Chinese people are aware of their environment and the problems that they have. Environmental problems are "sanctioned problems" that can be discussed freely in the press, in textbooks, and in everyday conversation. (Another sanctioned problem is the population: Nearly everyone in the cities will state agreement with the mantra, "We have too many people.") One result

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of this awareness is a growing environmental NGO presence in China that will have additional impacts in the future.

China today is synonymous with Change. So many aspects of their lives are changing that it is both exhilarating and frightening to the Chinese people. For example, the country is shifting a) from a centrally planned economy to a more market-oriented economy b) from a cradle-to-grave social welfare system to what must appear to many Chinese to be an "every man/woman for himself" approach. c ) from a strong family-based society to one in which the divorce rate has approached levels in the West in just 20 years. d) from an essentially closed society to one in which joint ventures with international companies are announced with near-daily regularity. e) from a system of customs and procedures that evolved over a 5000-year history to a system of laws and accountability that, over the next 10 years, will integrate Chinese commerce into the global economy through the World Trade Organization (WTO).

A few years ago, the SAB Staff had a sock presentation entitled "This is not your father's SAB", describing the changes that had taken place and were underway at the Board. In a similar vein, any discussion of this country -- including the environment -- should really be subtitled "This is not your father's China".

Dr. Donald G. Barnes  
Guangxi University, Nanning, China

## TENTATIVE SAB MEETING CALENDAR FOR DECEMBER & JANUARY

Several of the Federal Advisory Committee Act (FACA) meetings noted below have been announced in the Federal Register (FR), together with additional background information. Readers can automatically receive e-mailed copies of FR Notices by subscribing to the SAB Listserver; see Section Updates below.

If a series of meetings is anticipated, the number of the meeting in the series is indicated in parentheses; e.g., "(#2)".

### DECEMBER



#### 4 (Non-FACA)

**Committee:** EPA SAB EC Reorganization Subcommittee  
**Topic(s):** Reorganization of the SAB  
**Purpose:** To solicit input from key stakeholders and interested members of the public to solicit public input on the Reorganization Subcommittee's activities.  
**Location:** Sheraton Hotel, Crystal City, VA  
**Chair:** *Dr. William Glaze, University of North Carolina*  
**DFO:** *Mr. Fred Butterfield*  
**Email:** [butterfield.fred@epa.gov](mailto:butterfield.fred@epa.gov)

#### 5F

**Committee:** Executive Committee (EC)  
**Topic(s):** Review Meeting  
**Purpose:** To review the FY2001 Scientific and Technological Achievements Award Nominations: An SAB Report, and the Affordability Criteria for Small Drinking Water Systems: An SAB Report, Teleconference  
**Location:** Ariel Rios Building, Room 6013  
**Chair:** *Dr. William Glaze, University of North Carolina*  
**DFO:** *Mr. A. Robert Flaak*  
**Email:** [flaak.robort@epa.gov](mailto:flaak.robort@epa.gov)

## JANUARY



14-15

Committee:	Executive Committee (EC)
Topic(s):	Review Meeting
Purpose:	To review the Multi-Agency Radiological Lab Analytic Protocols (MARLAP), and the Long-Term Enhanced Surface Water Treatment Rule (LTESWTR) Proposal and Stage II Disinfection/Disinfectant By-Product (DBP) Rule Proposal
Location:	J.W. Marriott, Washington, DC
Chair:	<i>Dr. William Glaze, University of North Carolina</i>
DFO:	<i>Mr. A. Robert Flaak</i>
Email:	<a href="mailto:flaak.robert@epa.gov">flaak.robert@epa.gov</a>

### COMMITTEE ACTIVITIES IN NOVEMBER



**O**n November 20-22, the Human Health Research Strategy (HRS) Panel met at RTP to discuss the Strategy document. The Human Health Research Strategy presents the strategic directions for ORD's core research program in human health risk assessment over the next five to ten years. The research strategy discusses the major environmental problems, the principal scientific issues, and priority research areas that need to be

addressed to resolve the problems. It also describes the research approach and expected impact that the research will make to strengthen the scientific foundation for human health risk assessments across EPA.

Panel members had prepared comments on the document prior to the meeting. Lead discussants for each group (harmonization, susceptible populations, aggregate/cumulative risk, and public health outcomes) presented the group comments. The panel concurred and strongly supported the four major strategic research directions put forth in the Human Health Research Strategy document: 1) Research on the harmonizing risk assessment approaches; 2) Research on aggregate and cumulative risk; 3) Research on susceptible and highly exposed subpopulations; 4) Research to

enable evaluation of public health outcomes from risk management actions.

The panel also made several comments and suggestions on how the Strategy can be improved. They recommended that special attention should be given to vigorously evaluating methods and models that examine the mechanisms/modes of toxic action for their utility and applicability. More effort must be directed toward defining, understanding, and identifying the most susceptible populations. A more thorough explanation of public health outcomes from risk management actions is also recommended, in addition to increased detail about the methods to be used and the outcomes to be studied. The panel recognizes the need for a multidisciplinary approach in achieving these goals. This should include interactions and communication across disciplines within the agency, as well as through partnering with other federal and state government entities, research centers and academia. [Dr. Suhair "Sue" Shallal, DFO; 202/564-4566; shallal.suhair@epa.gov]

### **O**n November 22, the Executive Committee's (EC) Contaminated Sediments Science Plan Review

**Panel** held a teleconference following upon their October 30-31 2002 face-to-face meeting in Washington, D.C. The Panel reviewed a first draft report on the Contaminated Sediment Science Plan (CSSP) that integrated the Panel's responses to the Agency's charge questions. Among numerous matters pertaining to the CSSP draft, the Panel agreed to not recommend major revisions to the CSSP, instead acknowledging it to be a good start for the preparation of a science plan on contaminated sediments. It should assert that the next

effort to draft a science plan would benefit from selection of a less complex issue. It was agreed that the report should address the following three categories of Panel recommendations: (1) charge questions, (2) member's comments on issues in the CSSP as it relates to agreement or recommended modification, and (3) observations and recommendations on the function and need for science planning. A final call is scheduled for January 6 to finalize the Panel's report. Contact the DFO for additional information. [Mr. Lawrence Martin, DFO; 202/564-6497; martin.lawrence@epa.gov]

### STATUS OF FORMATION OF SAB PANELS

**T**he Board has developed a revised Panel Formation process for the recruitment of *ad-hoc* review panels. For the latest detailed information, please visit our website, [www.epa.gov/sab/panels/paneltopics.html](http://www.epa.gov/sab/panels/paneltopics.html).

### SAB REPORTS IN PROGRESS



### **a** PROJECTS DUE FOR THE JAN 14-15 EC MEETING

#### DWC

- 1) Long-Term Enhanced Surface Water Treatment Rule

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(LTESWTR) Proposal and  
Stage II  
Disinfection/Disinfectant  
By-Product (DBP) Rule  
Proposal

### RAC

- 2) Multi-Agency Radiological Lab  
Analytic Protocols  
(MARLAP)

### **b** *PROJECTS DUE FOR A LATER EC MEETING*

#### EEC

- 1) Risk Reduction Options Report

#### EHC

- 2) Human Health Research Strategy  
Review

#### EC

- 3) Cross Cutting Risk Assessment  
Issues

#### EC Subcommittee

- 4) Contaminated Sediments Science  
Plan Review

### **c** *PROJECTS THAT DO NOT REQUIRE EC APPROVAL (CASAC & COUNCIL)*

There are none at this time.

### **d** *PROJECTS THAT HAVE RECEIVED EC APPROVAL AND AWAIT COMPLETION*

#### EEAC

- 1) Affordability Criteria for Small  
Drinking Water Systems:  
An SAB Report

#### EHC

- 2) Review of Draft  
Trichloroethylene Health  
Risk Assessment:  
Synthesis and  
Characterization: An SAB  
Report

#### EC Subcomm.

- 3) Underground Storage Tanks  
(UST) Cleanup and  
Resource Conservation  
and Recovery Act (RCRA)  
Subtitle C Program  
Benefits, Costs, and  
Impacts Assessments: An  
EPA Science Advisory  
Board Advisory
- 4) Recommendations on the FY2001  
Scientific and  
Technological  
Achievements Award  
(STAA) Nominations: An  
SAB Report

### ABSTRACTS OF NEW REPORTS

**Review of the Office of Solid Waste's  
Study, Industrial Surface  
Impoundments in the United States:  
An EPA Science Advisory Board Review  
EPA-SAB-EEC-03-001**

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The Surface Impoundments Study Subcommittee of the Science Advisory Board's Environmental Engineering Committee reviewed the Office of Solid Waste's study, *Industrial Surface Impoundments in the United States*. The study was conducted to assess human-health and ecological risks associated with surface impoundments used to manage nonhazardous industrial waste. The Agency will use the study results to decide whether, and if so, how, to apply the land disposal restrictions or take other appropriate actions to address risks found and any regulatory gaps that may exist.

Overall, the Subcommittee finds the study provides a major advance in understanding the nature of industrial surface impoundments receiving non-hazardous liquid wastes in terms of their number, location, design, operation, chemistry, and potential human-health and ecological risks. The knowledge base obtained from the study is sound and can facilitate future policy and regulatory decisions. In particular, the Subcommittee finds that the approach used by the EPA in this risk analysis to be reasonable. Once the concerns raised in this review regarding exposure and health elements have been addressed, the study can be used to assess the adequacy of the current regulatory framework for addressing potential risks to human health and the environment from industrial surface impoundments.

### **Review of Metals Action Plan: An EPA Science Advisory Board Report EPA-SAB-EC-LTR-02-003**

The Metals Assessment Panel of the EPA Science Advisory Board reviewed the EPA's Metals Action Plan for development of a Framework for Metals Risk Assessment and a Guidance for Characterization and Ranking of Metals. The Plan puts forward the key scientific issues important for assessing the hazards and risks of metals in general. This review addresses the broad scientific issues underlying the assessment of metals hazards and risks, and not specific parameters that might or might not be used in particular applications.

Overall, the Panel agrees that metals should be assessed differently from organic pollutants in a number of contexts. The Panel also agrees that the issues of chemical speciation, bioavailability, bioaccumulation, and toxicity are key issues in assessing the hazards of metals. In developing an overall framework, the Panel recommends EPA consider these scientific issues broadly. In particular, the Panel recommends that:

- o speciation be considered broadly in terms of the environmental chemistry that determines speciation and transformation under various conditions; that
- o bioaccumulation be considered broadly, as determined by a set of processes that are related to the processes of bioavailability; and that
- o the temporal characteristics of the risks and hazards of metals be considered not merely as a persistence parameter, but broadly



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in terms of the underlying chemical, biological and physical processes.

By considering the scientific issues broadly in development of an overall framework, EPA can develop a scientific foundation to support appropriate simplifications in particular applications.

### COMPUTER NEWS



(1) SAB Website is within the EPA Home Page. You are invited to visit the SAB Website at URL: <http://www.epa.gov/sab>

The site offers such features as:

- (a) Full-text reports for FY1994-FY2002
- (b) Background information about the structure, function, and membership of the SAB
- (c) A projected six-month calendar of SAB meetings
- (d) Recent issues of HAPPENINGS
- (e) Draft/final agendas of upcoming meetings and draft/final minutes of past meetings.

(2) SAB Listserver - By subscribing to the free SAB Listserver, you will automatically receive copies of all Federal Register notices announcing SAB meetings, together with brief descriptions of the topics to be covered at the

meetings. These notices will be e-mailed to you within 24-hours of their publication in the Federal Register.

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(202) 501-0256.

### EDITOR'S NOTE

We would like to involve our readers in enhancing the EPA SAB newsletter. One idea is to introduce a Guest Editorial each month. The editorial would be from a person whose views and insights will be of interest and of use to the Members and Consultants of the Science Advisory Board and to those who follow news about the Board through Happenings. Sometimes the Guest Editorials will feature a view from the Agency; another time the view of an SAB member or Consultant; and at other times the views of those who are keen observers of the science advice that affects the Agency.

We look to you, our readers of Happenings, to assist us in finding potential

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guest editors each month. Our aim is to make our newsletter as informative and attractive as possible for our readership. And for the witty and wise, we are also accepting bon mots. To do this, we need to hear from you. So please send all potential Guest Editorial submissions, bon mots and ideas about what you would like to see in Happenings to me, Vickie Richardson, at [richardson.vickie@epa.gov](mailto:richardson.vickie@epa.gov). All submissions will be considered.

**BON MOT**



**454 graham crackers:**  
**1 pound cake**