



EPA and Risk Analysis

When Dr. Paul Gilman was confirmed as the Environmental Protection Agency's (EPA) Assistant Administrator for Research and Development in April 2002, EPA Administrator Christie Whitman said: "I am very pleased to have Paul Gilman as part of my senior staff here at EPA. His experience with cutting-edge scientific issues will be a real asset for EPA. It is important that we continue to make decisions based upon the best available data, and that we remain committed to the best use of science in the regulatory process."

This commitment to the best use of science led to EPA's establishment in May 2002 of the position of Science Advisor, a role which Gilman added to his other duties.

Gilman recently shared information with the *RISK newsletter* staff on the role of risk analysis at EPA and his part in that role.

RISK newsletter: Please give us a brief description of what you do as EPA's Assistant Administrator for the Office of Research and Development.

Gilman: The Office of Research and Development (ORD) serves the various programs of the EPA—water, air, waste, etc. ORD provides solutions to practical technical and scientific problems the EPA faces in carrying out its mission to protect human health and ecosystems. The research program of EPA also is focused on developing basic research with which emerging issues can be identified. ORD also plays a role in reviewing the various regulatory initiatives of the agency. As the Assistant Administrator for this group, I take a lead role in each of these aspects. In any given day I can be in discussions with intramural and extramural scientists discussing new directions for our research, offering comments and sug-

gesting alternatives for different regulatory approaches, or attending to some administrative function that—while not glamorous—is necessary for the \$600-million, 1,800-person research enterprise to function.

RISK newsletter: Please give us a brief description of what you do as EPA's Science Advisor. Why was this position formed?

Gilman: Governor Whitman created the position of Science Advisor in order to focus more sharply the efforts at improving the quality of research and the better use of science at EPA. I work on a wide range of issues and with a broad group within EPA. We are undertaking very significant efforts to provide the Regional Offices of EPA with greater technical support for their decision making. A number of new efforts are aimed at getting "back-to-basics." We have placed a greater emphasis on having EPA-wide guidance on the creation and use of computer models, the validation of different methods for measurements and sampling protocols, and training in risk assessment and risk communication.

RISK newsletter: What are your goals as Science Advisor and how does risk analysis play a part in achieving those goals?

Gilman: My goal as Science Advisor is to increase significantly the use of science at EPA and, where EPA is a generator of that science, to see that it is of the highest quality. For an agency that uses risk analysis in both its regulatory mission and in prioritizing its nonregulatory activities, it is essential that the agency resume its leadership role in the development of new tools and methods for risk analysis. I hope to foster an environment where that can happen.

(EPA, continued on page 3)

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Please check and update your contact information at www.sra.org.**



The Society for Risk Analysis (SRA) is an interdisciplinary professional society devoted to risk assessment, risk management, and risk communication.

SRA was founded in 1981 by a group of individuals representing many different disciplines who recognized the need for an interdisciplinary society, with international scope, to address emerging issues in risk analysis, management, and policy. Through its meetings and publications, it fosters a dialogue on health, ecological, and engineering risks and natural hazards, and their socioeconomic dimensions. SRA is committed to research and education in risk-related fields and to the recruitment of students into those fields. It is governed by by-laws and is directed by a 15-member elected Council.

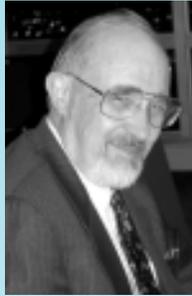
The Society has helped develop the field of risk analysis and has improved its credibility and viability as well.

Members of SRA include professionals from a wide range of institutions, including federal, state, and local governments, small and large industries, private and public academic institutions, not-for-profit organizations, law firms, and consulting groups. Those professionals include statisticians, engineers, safety officers, policy analysts, economists, lawyers, environmental and occupational health scientists, natural and physical scientists, environmental scientists, public administrators, and social, behavioral, and decision scientists.

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Society for Risk Analysis
Web Site
www.sra.org

President's Message



A landmark event in the field of risk analysis is the forthcoming 2003 World Congress on Risk in Brussels, 22-25 June 2003. Cochairs Dr. Robin Cantor and Dr. Rae Zimmerman, both past presidents of SRA, have done an outstanding job. Their conception from the outset was to be collegial with the many international scientific and professional organizations that have an interest in risk analysis. This has resulted in a broad range of sponsoring organizations and support.

Being first in anything has a high anxiety value. It is what our risk communication experts would label as dread of the unknown, but in this case combined with the type of fear technically known as "suppose I gave a party and nobody came?". We are well past the latter as the response has been enthusiastic and, despite all of the many current international concerns, there is every indication of high attendance and broad participation from throughout the world. The breadth of international participation is particularly important and demonstrates the penetration of risk concepts globally.

The unifying theme for the First World Congress is "Risk and Governance" (see Preliminary Program on page 6). The focus will be on the use of risk-oriented concepts, tools, and processes for public decision making and for risk management. There is every intention of having a Second World Congress. We anticipate that the planning for this second event will occur at the First World Congress, as will discussions concerning the optimum organizational structure for advancing the field and for supporting risk analysis professionals globally.

The shrinking of the globe has led to the globalization of risk. Diseases previously confined to limited areas of the world now spread with the speed of airplane travel—a speed which overcomes the slower development of prevention and treatment modalities. Effluents ignore international boundaries. Harmful products show up on the world market before their unwanted effects become apparent locally. Damage to one part of our planetary ecosystem has impacts on far distant areas. The increase in world trade puts even greater pressure on national market forces to invent risk-based or precaution-based approaches to improve economic competitiveness. And there are often major national and regional differences in cultural, legal, and scientific approaches to risk.

We do not expect that risk analysis will solve all of these global problems; nor is it at all likely that risk analysts will be the sole decision makers in complex global issues. But we do believe that our field and our professionals can contribute to the understanding of these issues in a manner that enhances peaceful and efficient resolution. Further, we believe we have much to contribute to the anticipation, early recognition, prevention, and response to the inevitable new risks that are part of our rapidly changing globe.

Let me close with a description of a partially avoidable risk affecting you and me that has gone upscale as a result of new technology. Thrombosis of leg veins and resultant fatal pulmonary emboli were a particular problem for the legions of elevator operators who stood still during their work day. Automatic elevators have virtually ended this occupational cause of fatal pulmonary embolism, at least in the developed world. But a new risk factor for this disease is long airplane flights in modern cramped seat conditions. The risk is avoidable. So just as elevator operators were instructed to walk around as much as possible, we ask all of you flying long distances to attend the World Congress on Risk to do leg exercises at your seat and to remember to get up and walk around the airplane cabin as much as reasonably feasible.

(EPA, continued from page 1)

RISK newsletter: What is the overall role of risk analysis at EPA?

Gilman: It is, as I stated before, key to the regulatory activities and the nonregulatory decision-making activities of the Agency and has been since its inception. As such, the Agency has taken pains to make its use more consistent across the various programs and more transparent to the various stakeholders. The EPA's Risk Assessment Forum has been a focal point for these activities (<http://cfpub.epa.gov/ncea/raf/index.cfm>).

RISK newsletter: What is the specific importance of risk assessment, risk management, and risk communication at EPA?

Gilman: Risk assessment is used for regulatory decisions (for example, the registration of pesticides or setting the requirements for cleanup at a Super Fund site) and for priority setting for the agency (for example, in assessing whether a regulatory action should be undertaken in setting a drinking water standard for a particular contaminant). Anytime one begins the process of risk assessment, I believe one must also begin the process of risk communication. While EPA Regional Offices are attuned to this notion we can and will do more to sensitize and train our risk assessors and managers to the art and science of risk communication. Risk management in a federal agency is a complicated proposition. The overlay of federal statutes and judicial findings can alter significantly the decision-making process away from a more analytical and fact-based process. EPA sometimes is criticized for approaching a problem in a non-scientifically based manner when the real reason for doing so is to adhere to a legislatively mandated process.

RISK newsletter: Is there anything else you would like to share with SRA members about risk analysis and EPA?

Gilman: Yes. The agenda for further refinement of our tools and methods is impressive. We are trying to complete our guidance for the performance of cumulative risk assessments, the improvement of our processes for deriving reference values, the assessment of chemical mixtures, the

harmonization of the treatment of cancer and noncancer endpoints, microbial risk assessment, and ecological risk assessment, among other things. This is all very useful and when you look closely it is an impressive agenda, but there is something more that I intend to try to address. There are any number of issues that continue to be the focus of concern and criticism for the Agency in how it does risk assessments. Some are practices of the past that have been left behind, but many are not aware of that—like the famous “porch potato” sitting at the fence of an air toxics emitting facility for 70 years. Some are practices that continue to be justified although they may not be popular within the regulated community or by the watchdogs of the Agency. But there is likely a group that quite justifiably needs further scrutiny and we will be laying out a process for doing that in the very near future. Right now I am interested in cataloguing the list with which to begin that process.



Dr. Paul Gilman is the Environmental Protection Agency's (EPA) Assistant Administrator for Research and Development and the EPA's Science Advisor.

Before assuming these posts, Gilman most recently directed research integration and policy planning at Celera Genomics in Rockville, Maryland. Between March 1993 and September 1998, he concurrently held the position of Executive Director of both the Commission on Life Sciences and the Board on Agriculture at the National Research Council of the National Academy of Sciences. Since 1999, Gilman also served on the Board on Environmental Studies and Toxicology of the National Research Council. Additionally, Gilman was the acting chair of the U.S. Department of Energy Laboratory Operations Board.

Also, Gilman served as Associate Director of the Office of Management and Budget, Executive Assistant to the Secretary of Energy, Administrative Assistant and Chief of Staff for U.S. Senator Pete Domenici (R-NM), and Staff Director of the U.S. Senate Subcommittee on Energy Research and Development.

Guidelines for Cancer Risk Assessment Comments Due in June

In an effort to update key scientific risk assessment methodologies, the Environmental Protection Agency (EPA) has released for public review and comment its *Guidelines for Carcinogen Risk Assessment*. The deadline for public comments is 2 June 2003. The release of these draft documents was announced by Dr. Paul Gilman, EPA's Science Advisor and the Assistant Administrator for the Agency's Office of Research and Development (see cover story, above).

These guidelines have been in revision since 1992. According to Gilman, the Agency had not been able to reach consensus on a number of points since the draft version was published in 1996 and then revised in 1999. “During that time the long-term trend has been toward grounding EPA's health assessments in understanding the mode of action of the compound in question,” Gilman said. “That is, in my opinion, a very good thing and it was ultimately the key to reaching consensus.”

Gilman added that consensus was built around the science, the data, and a science-based approach to analyzing the data. “Overall,” he stated, “the increased emphasis on asking what the data say before involving default assumptions is another hallmark for the Guidelines. This is reflected in a number of the specific elements of the Guidelines—whether it is the treatment of dose response or in the treatment of susceptibility for different life stages.”

The draft final guidelines can be found at http://www.epa.gov/newsroom/headline_030303.htm.



Regulatory Risk Review

EPA Cancer Guidelines Near “Final” Destination

“What a long strange trip it’s been . . .”—The Grateful Dead

David P. Clarke, American Chemistry Council

For some, the Environmental Protection Agency’s (EPA) *Draft Final Guidelines for Carcinogen Risk Assessment* (published 3 March 2003 for a 60-day public comment period) ominously signifies that fewer chemicals will be found to cause cancer in humans, while for others it may signify the opposite, depending on the details. Either way, a decade’s worth of controversy about EPA’s new proposals for assessing the cancer-causing potential of chemical substances has come to this—two separate guidelines, one general and the other a “Supplemental Guidance for Assessing Cancer Susceptibility from Early-Life Exposure to Carcinogens,” a newly born document that will undergo scientific peer review later this year before being allowed outside to play.

To no one’s surprise, the centerpiece of the proposed *Draft Guidelines* is the Agency’s framework for analyzing mode-of-action data. This was also at the center of EPA’s July 1999 draft and responds to the growing understanding among scientists that *how* a chemical causes cancer makes a big difference in its potential risk to humans. Up until EPA embraced this idea that the mode of carcinogenic action must be considered in assessing chemicals, the Agency’s across-the-board assumption was that whenever a substance causes cancer in a rodent it also can be presumed to cause cancer in humans. Another basic assumption EPA makes is that carcinogens pose a risk, however slight, even down to a single molecule, a “linear” dose-response model that some scientists dispute as contrary to toxicology’s basic tenet of “the dose makes the poison.”

Now, under the proposed guidelines, an analyst may hypothesize that the cancer seen in rodents after exposure to a substance is caused by a mode that is irrelevant to humans, or that points to a “threshold” level of a substance to which a person can be exposed without appreciable risk. In offering such a hypothesis, an analyst would be asked to “identify key events”—the milestone processes leading up to cancer—and describe their causal role in the ultimate occurrence of the disease. This aspect of carcinogen risk assessment is where scientific understanding may override cer-

tain “default assumptions” EPA sets forth in its guidelines. Needless to say: Expect controversy over the definition of “key events” and other issues in EPA’s draft proposals.

Of course, although science plays a greater role in these new guidelines than under the 1986 version they will replace, given the incompleteness of scientific knowledge, judgment also arises at many crucial points. When examining scientific evidence, “Weight of evidence conclusions come from the combined strength and coherence

of inferences *appropriately* [emphasis added] drawn from all of the available evidence.” In reviewing data, “Observations of only benign neoplasia may or may not have significance.” In using the mode-of-action framework, “The entire range of information de-

veloped in the assessment is reviewed to arrive at a reasoned judgment.” When assessing a chemical’s carcinogenic hazard, “Applying a descriptor is a matter of judgment and cannot be reduced to a formula.” What this points to is the need for “fish bowl” transparency about what scientific evidence was reviewed in an assessment and what judgments were made about the evidence. When evidence is weighed, let’s have those scales out in the open for all to see. Vital to this greater transparency will be effective peer review to critically examine both the science and the scientific judgments contained in risk assessments under the new guidelines.

From the perspective of risk communication, the proposed guidelines—and in particular the Supplement—have underscored the need for better communication with the news media about EPA’s highly technical policy documents. Some newspapers reported that according to EPA children are at 10 times greater risk than adults from chemicals that cause cancer by altering DNA. But Agency officials explain that the Supplement’s proposed 10-fold adjustment factor for the dose-response slope applied for exposures occurring between the ages of 0 to 2 are averaged over a 70-year lifetime, producing a 1.6-fold greater risk. Try explaining *that* to your harried editor!

Science moves ahead. Policy debates rage on. And the latest draft guidelines keep trucking along, headed for whatever draft final destination awaits such a contentious, complex document, until the next round of revisions kicks off.



“Another basic assumption EPA makes is that carcinogens pose a risk, however slight, even down to a single molecule, a ‘linear’ dose-response model that some scientists dispute . . .”

Update your email information

The Society for Risk Analysis will be sending members many important announcements by email. Please make sure the Secretariat has your most current contact information.

The Membership Directory is now online so you can check your information at www.sra.org (click on Membership Directory). Make changes there or contact the Secretariat at SRA@BurkInc.com.

Paper copies of the Membership Directory will no longer be printed and mailed to members.

Bridging Risk Divides
Society for Risk Analysis 23rd Annual Meeting

7-10 December 2003, Renaissance Inner Harbor, Baltimore, Maryland

The theme of the 2003 Annual Meeting of the Society for Risk Analysis is Bridging Risk Divides. In addition to the usual range of topics, those to be highlighted include links among aspects of risk analysis (for example, risk assessment, risk management, and risk communication), risk sectors (for example, academia, business, government, and nonprofit), risk disciplines (for example, toxicology, epidemiology, engineering, economics, law, psychology), and “haves” and “have-nots” (for example, developing and developed world, different demographic groups).

The meeting will be held at the Renaissance Inner Harbor in downtown Baltimore, across the street from the Inner Harbor and connected to a shopping mall and food court. Nearby there are many affordable restaurants and attractions, including a world-class aquarium.

******Absolute final deadline for abstracts—15 May******

Poster Sessions

Poster sessions will be grouped by subject and presented either in larger groups, with author attendance during meeting breaks, or in smaller groups, as poster-platform sessions. The latter include three-minute descriptions by authors at the start of each session, facilitated by a session chair assigned by the Program Committee.

Oral Presentations

Oral presentations will be grouped by subject and assigned a session chair by the Program Committee. Each oral presentation should take 15 minutes, followed by 5 minutes for audience questions and comments. Speakers will be required by session chairs to adhere to time limits.

Symposia

Symposia address a particular subject of interest through a multidisciplinary format. Symposium proposals are submitted as such and are not organized by the Program Committee. Generally, symposia follow the same format as the oral presentations and are limited to one 1 1/2-hour session to the extent possible. Preference will be given by the Program Committee to symposium proposals that truly reflect several risk-related disciplines.

Best Paper Competition

SRA invites presenters to submit a 5-10 page extended outline by 31 July in any one of the program topic areas to compete for Best Paper Awards. (Members must have submitted the “normal” abstract by 15 May 2003.) These extended outlines will be reviewed by the Program Committee, and a select number of authors will be invited to submit a full paper by 16 October for the competition. The best papers will receive recognition at the meeting and possible publication in the Journal, *Risk Analysis*. Additional information about the Best Paper Competition is on the SRA Web site (www.sra.org).

Workshops

Workshops will take place on Sunday, 7 December, one day prior to the regular meeting sessions. Workshop proposals are evaluated by the Conferences and Workshops Committee, not the Program Committee. Workshops are generally half day (four hours) or full day (eight hours) and are educational in nature.

Exhibits '03

There will be an exhibition of risk- and exposure-related products and services at the Annual Meeting. Companies or individuals may exhibit computer software, data bases, or other products. For further information on exhibiting, contact Lori Strong (LStrong@BurkInc.com) or Sue Burk (SBurk@BurkInc.com) at 703-790-1745, fax: 703-790-2672.

Book Exhibit

The meeting will once again include a combined book exhibit. For \$50 per title, books will be displayed and each attendee will be provided information through our list of publications. The list will include prices, any discounts that may be offered, and ordering information. For more information or book reservation forms, contact Lori Strong (LStrong@BurkInc.com) at 703-790-1745, fax: 703-790-2672.

Preliminary Program

Preliminary programs will be mailed to members of the Society, as well as to those nonmembers whose abstracts have been accepted. Final programs will be available at the meeting in December. Preregistration and hotel reservation materials will be mailed as a part of the preliminary program.

Presentation Information

Only high-quality standard 2x2-inch slides or overheads will be acceptable for use in oral presentations. Please be aware that a large number of submissions selected will be presented as posters. Poster board dimensions: 8' wide x 4' high. Poster presenters must be available at designated session times. Authors are encouraged to bring a written version of their papers for handout as there will be no published proceedings of the meeting.

Questions?

Program Chair Caron Chess—phone: 732-932-8795, fax: 732-932-7815, email: chess_c@aesop.rutgers.edu
SRA Secretariat—phone: 703-790-1745, fax: 703-790-2672, email: SRA@BurkInc.com

First World Congress on Risk: "Risk and Governance"

Sheraton Brussels, Belgium, 22-25 June 2003

Preliminary Program

Sunday, 22 June

Opening Reception

Robin Cantor, LECG, LCC, and Rae Zimmerman, New York University, Conference Chairs
and Representatives from Participating Organizations

Monday, 23 June

Chemical, Biological, Radiological, and Cyber Risks

Subtheme Leader: John Ahearne, Sigma Xi and Duke University

Plenary Panel Speakers

Saburo Ikeda, University of Tsukuba

William Farland, U.S. Environmental Protection Agency

Christopher Whipple, Environ International Corporation

Morning Breakout Sessions

a) Risks from Novel Sources of Biodiversity: *Anne Fairbrother, U.S. EPA*

Speakers: Janet Anderson, U.S. EPA; Pim Martens, International Centre for Integrative Studies; William Pardee, Cornell University

This breakout session has been organized by SETAC (Society of Environmental Toxicology and Chemistry) and focuses on the biological risks of invasive species, biotechnology, and other novel genetic material. The session will look for commonalities in methods for analyzing risks of novel genetic material to humans and the environment, whether the material is introduced as whole organisms (invasive species), novel genes (through genetic engineering), or new or reemerging pathogens.

b) Radiological Risks and Long-Term Waste Management: *Robert Budnitz, Lawrence Livermore National Laboratory*

Additional Speakers: Steve Barlow, Nirex Ltd., UK; Roger Kasperson, Stockholm Environment Institute; Piet Zuidema, National Cooperative for the Disposal of Radioactive Wastes, Switzerland

The objective of this breakout session is to discuss the role of risk analysis, including both realistic risk analysis and various other forms of risk analysis, in assessing the risks over the very long term of managing high-level radioactive waste and spent nuclear power plant fuel. The emphasis is on risk analysis methods for deep-geological disposal, as well as risk analysis methods for long-term surface management of these wastes.

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c) Early Warning Systems for Chemical Risks: *Carolyn Vickers, International Programme on Chemical Safety, World Health Organization*

Speakers: Lesley Onyon, IPCS, WHO

Summary will be published in final program.

d) Terrorism and Extreme Events: *Vicki Bier, University of Wisconsin*

Speakers: Keith Florig, Carnegie Mellon University; Ortwin Renn, Center for Technology Assessment; Torbjorn Thedeem, Royal Institute of Technology, Sweden; Rae Zimmerman, New York University

The session will cover such questions as How does terrorism risk management differ from protection against accidents or acts of nature? What new risk analysis methods, models, and theories (if any) are needed to address terrorism risk? What is known about the ability of systems to rebound after a terrorist attack? How has the public responded to the threat of terrorism? Are there trade-offs between terrorism risk management and the preservation of basic values, such as protection of individual freedoms?

Luncheon Topic: Reflections on Risk and Governance

Speakers: Commissioner David Byrne, European Commission, and Dr. John Graham, U.S. Office of Management and Budget.

Tuesday, 24 June

Global and Trans-Boundary Risks

Subtheme Leader: Joyce Tait, Scottish Universities Policy Research and Advice Network (SUPRA), The University of Edinburgh

Plenary Panel Speakers

Ursula Gundert-Remy, Federal Institute for Risk Assessment

Charles Kleiber, Swiss Department of Home Affairs, Agency for Science and Research

Rajendra K. Pachauri, Chair of the Intergovernmental Panel on Climate Change

Morning Breakout Sessions

a) GMOs and International Trade: *Joyce Tait, Scottish Universities Policy Research and Advice Network (SUPRA), The University of Edinburgh*

Additional speakers will be listed in the final program.

Trade in genetically modified seeds and crops has become one of the most contentious international risk issues. Conflicts among European Union (EU) countries, between

the EU and the United States, and increasingly involving the developing world have demonstrated the inherent difficulties in harmonizing regulatory and administrative procedures in the face of manifestly different institutional commitments and political/administrative cultures. This session will address issues relevant to the needs of developing countries, consumers, the food industry, and the agro-biotechnology industry.

b) Global Climate Change—Extreme Events: *Joanne Linnerooth-Bayer, International Institute for Applied Systems Analysis (IIASA)*

Speakers: Neil Doherty, Wharton School, University of Pennsylvania; Howard Kunreuther, Wharton School, University of Pennsylvania; Mahendra Shah, IIASA (invited); Anna Vari, Hungarian Academy of Science

The focus of this breakout session is the assessment and management of risks of weather-related catastrophes. While the focus is on extreme weather events, the conceptual development can be transferred to technological disasters and to proactive management of deliberate catastrophes, such as terrorist activities. The session will focus on

advanced modeling such as catastrophe models, innovations in risk-transfer instruments, and governance of disaster risk management at the local, national, and global levels.

c) Risk Analysis and the Precautionary Principle: *Peter Wiedemann, Forschungszentrum Juelich, and Martin Clauberg, University of Tennessee*

Additional Speakers: David Gee, European Environment Agency; George Gray, Harvard Center for Risk Analysis (invited); Calestous Juma, Center for International Development, Belfer Center for Science and International Affairs (invited); Michael Rogers, European Commission; Marjolein Van Asselt, Maastricht University, Netherlands

Within the last decade—specifically the last five years—the concept of the “Precautionary Principle” has come into (regulatory) focus and momentum for it has been growing.

The goal of this moderated panel discussion is to explore anew the underlying concept, conflict and problem issues, and suggestions to move forward in finding ways to open up a constructive dialogue on “Risk Analysis and the Precautionary Principle.”

Wednesday, 25 June

Sustainable Development with Acceptable Risks

Subtheme Leader: Gail Charnley, HealthRisk Strategies

Plenary Panel Speakers

Harold Mooney, Stanford University (invited)

Paul Slovic, Decision Research

Alvaro Umana, Environmental Sustainable Development Group of the United Nations Development Program

Morning Breakout Sessions

a) Public Health Priorities: *Scott Ratzan, Johnson & Johnson*

Additional Speakers: Jamal Hashim, Universiti Kabangsan, Malaysia; Zailina Hashim, Universiti Putra, Malaysia; Carlos Santos-Burgoa, Director General de Salud Ambiental, SSA

Health and development are intimately interconnected. Both insufficient and inappropriate development can create threats to public health through poverty, overconsumption, and misplaced risk-reduction priorities. The goal of this session will be to develop recommendations with regard to how the tools of risk analysis can help characterize threats to public health that accompany globalization and development and help set public health priorities so that our efforts to achieve sustainability will be most effective.

b) Globalization and Cultural Integrity: *Steve Rayner, University of Oxford and Economic & Social Research Council Science in Society Programme*

Additional Speakers: Roger Kasperson, Stockholm Environment Institute; Joanne Linnerooth-Bayer, International Institute for Applied Systems Analysis; Tommy Tranvik, Rokkan Institute, University of Bergen

Globalization creates environmental, cultural, and social costs and benefits. It has been imbued by some with the power to improve livelihoods, while others express concern that it poses serious threats to cultural identities and

institutions. This session will examine the nature of globalization and its sometimes counterintuitive effects on the integrity of local, place-based cultures.

c) Sustainable Resources: Moderator to be determined in the final program.

Speakers: Donna L. Kraisinger, BP (invited)

One of the most significant impacts of human development is on natural resource production, distribution, and use. Economic growth and social development depend on resource use. This session will address core sustainability challenges such as meeting the growing demand for natural resource supplies and uses while mitigating concomitant risks to health and the environment. The goal of the session will be to explore the role that risk analysis can play in assessing and managing risks from expanding natural resource demands in both the developing and developed worlds.

Protecting Biodiversity: *Hamdallah Zedan, Convention on Biological Diversity*

Additional speaker: Steven Clemants, Brooklyn Botanical Garden

The variety and variability of genes, species, populations, and ecosystems provide the foundation for the earth's essential goods and services.

Potential risks to the sustainability of ecological integrity include (but are not limited to) dense urbanization and infrastructure, intensive agriculture and fisheries, invasive

alien species, chemical use and manufacture, and climate change. This session will evaluate the role that risk analysis can play in characterizing and mitigating threats to biodiversity.

Luncheon Topic: Risk and Sustainable Development
Moderator: Jonathan Wiener, Duke University
Speaker: Commissioner Margot Wallström, European Commission

In addition, the afternoon program includes more than 50 symposia sessions and dozens of poster presentations to begin an international dialogue on a wide variety of current risk issues. Through the generous support of the National Science Foundation, U.S. Environmental Protection Agency, U.S. Department of Energy, and National Institute of Environmental Health Sciences, we have been able to ensure substantial participation by young investigators and researchers and policy makers from developing countries.

Don't forget to make your room reservation while the SRA World Congress discount rate is in effect. Call the Sheraton at +32 2 224 3111 by 22 May to ensure the conference rate of EUR 248.

For complete up-to-date program details and to register, visit our Web site at <http://www.sra.org/events.htm#world>. See you in Brussels in June!

“Risk and Governance”

The First World Congress on Risk, 22-25 June 2003, Belgium

The First World Congress on Risk, cosponsored by the Society for Risk Analysis (SRA) and other scientific and professional organizations interested in risk, will be held 22-25 June 2003 at the Sheraton Brussels in Belgium.

“Risk and Governance” is the theme of this International Conference, reflecting the worldwide trend toward making better use of risk-oriented concepts, tools, and processes (derived from both research and practice) in public decision making and risk management. This is the first of a series of World Congresses on Risk that will be important, logical steps to further develop the field of risk analysis and its applications.

Updated List of Conference Organization and Sponsors

Organizations participating with SRA for the First World Congress on Risk include SRA-Europe (SRA-E), SRA-Japan (SRA-J), Society of Environmental Toxicology and Chemistry (SETAC), Society of Toxicology (SOT), International Association for Probabilistic Safety Assessment and Management (IAPSAM), International Union of Toxicology (IUTOX), International Council on Systems Engineering (INCOSE), German Foundation for Environment and Risk Management, American Physical Society (APS), UK Safety and Reliability Society (SARS), U.S. National Institute of Environmental Health Sciences (US NIEHS), World Business Council on Sustainable Development (WBCSD), U.S. Department of Energy (US DOE), American Chemistry Council (ACC), German Commission on Harmonizing Risk Standards (GCHRS), and U.S. Environmental Protection Agency (US EPA).

Conference Organizers: Robin Cantor, Rae Zimmerman

Planning Committee:

SRA John Ahearne, Richard Belzer, Gail Charnley, Bernard Goldstein,
 Yacov Haimés, Igor Linkov, Timothy McDaniels, Mitchell Small
 SRA-E Roger Kasperson, Joanne Linnerooth-Bayer, Ragnar Löfstedt,
 Ortwin Renn, Joyce Tait
 SRA-J Saburo Ikeda, Michinori Kabuto
 SETAC Anne Fairbrother
 SOT Michael Dourson
 NIEHS Chris Schonwalder

World Congress on Risk Web Site
www.sra.org/worldcongress3.pdf

Conference Coordinator: Society for Risk Analysis, 1313 Dolley Madison Blvd., Suite 402, McLean, VA 22101, 703-790-1745, fax: 703-790-2672, email: SRA@BurkInc.com

News from the First Kids Risk Symposium

Approximately 150 people attended the national symposium called "Managing Children's Risks: It Takes a Commitment" held at Harvard University on 26-27 March 2003. Hosted by Society for Risk Analysis (SRA) Councilor Dr. Kimberly M. Thompson, Director of the Kids Risk Project and Associate Professor of Risk Analysis and Decision Science at the Harvard School of Public Health and Children's Hospital Boston, the two-day meeting featured leaders in the fields of pediatrics, children's nutrition, and injury prevention, as well as representatives from several federal agencies including Hal Stratton, Chairman of the U.S. Consumer Product Safety Commission (CPSC). The meeting focused on the critical role that risk analysis and good science play in informing kids, parents, policy makers, and other stakeholders about children's risks and the need for better analysis to empower decision makers to make significant improvements in children's lives.

As part of her overview of the Kids Risk Project, Thompson released a study supported in part by funds from the Harvard Injury Control Center's grant from the U.S. Centers for Disease Control and Prevention that explored the role of baby bath seats in unintentional infant drowning. The study, published the morning of 26 March in *Medscape General Medicine*, provided significant findings relevant to the CPSC showing that increased baby bath seat use in the United States did *not* increase the risk of accidental drowning of infants in bathtubs. While it's easy to blame a new technology, Thompson emphasized that the real and constant risk in this case is that "too many caretakers leave infants unattended in bathtubs" and that "the public health and medical communities must remain vigilant in educating each new group of parents and caretakers about drowning risks." Chairman Stratton commented on the study in his remarks indicating that the CPSC would be considering the results of this study in its ongoing review of baby bath seats.

Thompson also emphasized that the Kids Risk Project is exploring whether we are investing wisely and sufficiently in the health and development of children. She discussed current unpublished work that seeks to quantify government spending on children and its impacts, and she also released a study funded by The Annie E. Casey Foundation that focused on the role of the business community in children's health and development. This study, called "How Much Do Kids Count in Corporate Board Rooms? Results from the First Survey of Fortune 1000 Companies," was also published by *Medscape General Medicine* that morning. The survey found that of the 333 Fortune 1000 companies that responded, approximately 33% have vision statements, mission statements, or guiding principles that include a commitment to children, approximately 41% provide employment opportunities in the United States for children under the age of 18 years, and approximately 77% encourage their

employees to mentor children under the age of 18 years. The study includes examples of the types of programs that companies pursue and Thompson indicated that, while the results are difficult to generalize, the study suggests that "businesses are playing a significant role in the health and development of children, and that the Fortune 1000 companies represent the tip of the iceberg of the overall business community's commitment to children." She indicated that this study provides an important baseline and that future studies should be conducted

Kids Risk Project Web Site
<http://www.kidsrisk.harvard.edu>

to track corporate responsibility efforts aimed at helping children. Dr. William O'Hare, Director of Kids Count at The Annie E. Casey Foundation, emphasized in his remarks that measuring child health out-

comes and understanding the risks is critical to overcome the unstated assumption in America: "If it is important it will be measured and reported. We value what we measure, and we measure what we value. Ergo, if child well-being is not measured and reported it is not important."

James Mandell, MD, President and CEO of Children's Hospital Boston, made the final major announcement at the symposium on 27 March when he officially announced the creation of a new Center for Media and Child Health at the Children's Hospital Boston, cofounded by Dr. Michael Rich, who will serve as the Director of the Center, and Thompson, who will serve as the Center's Director of Research.

Thompson highlighted that the mission of the Kids Risk Project is to promote informed decision making by kids, parents, and policy makers on issues related to children's risks, provide context to help put risks and interventions in perspective, promote actions that improve children's health and well-being, and cover multiple disciplines and risk areas to bridge the gaps between the various communities. She stated that the current fragmentation in the communities focused on children means that effort is needed from the risk analysis community to ensure that accurate information about children's risks is available so that the people's perceptions of these risks are informed by the best available data. Other featured speakers at the meeting included Dr. George Lundberg from WebMD, Michele Courton Brown from Fleet Bank Financial, Joan Lawrence from the Toy Industry Association, Dr. Heather Paul from National SAFE KIDS, Dr. Dennis Bier from Baylor College of Medicine and the United States Department of Agriculture/Agricultural Research Service (USDA/ARS) Children's Nutrition Research Center, Dr. Alan Hinman from the Task Force for Child Survival and Development, Dr. Peter Scheidt from the National Institute for Child Health and Human Development, Debbie Sams from First Star, John Murray from Kansas State University, Jay Winsten from Harvard, and Jana Novak for United States Senator Sam Brownback (R-Kansas). For more information, check out the Kids Risk Project Web site at <http://www.kidsrisk.harvard.edu>. 



Chapter News

New England Chapter

Susan Matkoski, Newsletter Coordinator

In February the New England Chapter of the Society for Risk Analysis (SRA-NE) welcomed Alan Eschenroeder, PhD, Adjunct Lecturer on Environmental Science and Engineering, Department of Environmental Health, Harvard School of Public Health, who presented the topic "Should Socioeconomic Health Effects Be Included in Risk Assessments?" and Eric M. Dubé, MPH, of Gradient Corp, who presented a talk on "Evaluation of Human Health Risks from Exposures to Inorganic Arsenic Associated with CCA-Treated Wood."

Dr. Eschenroeder presented a growing body of research in the social sciences that suggests strong linkages between health status and the economic capital of populations. He also discussed the possibility that the effects of development on income distribution and employment may influence health as much as the resultant chemical exposures were explored.

Dubé's presentation was on chromated copper arsenate (CCA) treated wood, which is commonly used throughout the United States for decking, play structures, fencing, and other outdoor uses and has recently become a regulatory interest and public concern regarding potential for exposures. He discussed several aspects of Gradient's assessment of the potential health impact of using CCA-treated wood, which included characterization of the amounts of dislodgeable arsenic and arsenic in soil, approaches to quantify transfer of arsenic dislodged from the surface of treated wood to hands and subsequently to mouth, followed by salivary removal, and estimation of bioavailability.

The 4 March meeting with the Licensed Site Professional Association (LSPA) had a large turnout. Paul Locke, Acting Deputy Division Director for Policy and Program Development in the Bureau of Waste Site Cleanup, and Andrew Friedman, PhD, of the Office of Research and Standards of the Massachusetts Department of Environmental Protection (MDEP), provided an update on the subject of Modeling the Vapor Intrusion Pathway: Revisions to the Massachusetts Contingency Plan (MCP) GW-2 Groundwater Standards (groundwater standards protective of potential indoor air exposures). The policy and technical issues associated with the revisions to the MCP GW-2 standards, and the national trend to give this pathway greater scrutiny, was presented. It is notable that in 1993 the MDEP became the first state to focus on the vapor intrusion migration pathway and develop generic groundwater cleanup based on this exposure.

In the past few years, concern about indoor air exposures resulting from contaminated groundwater has crossed over from the technical literature to the popular press as sites like Colorado's Redfield made headlines. In November 2002, the U.S. Environmental Protection Agency issued draft guidance "Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils."

At the state level, Massachusetts is completing a comprehensive revision to its GW-2 standards, based on the body

of information that has been collected over the 10 years since their initial development.

On 9 April Dr. Andrew Spielman, PhD, Professor of Tropical Public Health, Harvard School of Public Health and Center for International Development, spoke about the West Nile virus, a summertime health concern that can be a site-specific (for example, tire dumps, junkyards) and/or urban-environment issue.

SRA-NE Membership

Our officers would like to hear from members of the National SRA who live in New England so that we can communicate with, and plan activities for, all New England members. In the past, activities have been centered in Boston, Massachusetts, but we would like to sponsor some events in other areas of New England as well. To do that, we need to know where interested members are!! Please send an email to Karen Vetrano or Marion Harnois (marion.harnois@worldnet.att.net) so that we can include you on the mailing list for upcoming activities.

You may also keep in touch with SRA-NE news and events by visiting our Web site: www.sra-ne.org. Membership is not necessary for attendance at meetings and activities, but if you wish to support the Chapter as a member, contact Secretary Karen Vetrano (860-298-6351, kvetrano@trcsolutions.com) or Treasurer Arlene Levin (781-674-7369, Arlene.Levin@erg.com).

National Capitol Area Chapter

David J. Kent, Executive Committee

The National Capitol Area Chapter (NCAC) of the Society for Risk Analysis (SRA) has been busy so far in 2003. We began the year with the first of our quarterly seminars on 20 February. Sponsored by the NCAC Economics and Benefits specialty section led by Scott Farrow, the seminar featured world-renowned epidemiologist Devra Davis, who presented a talk called "Risk Assessment When the Stakes are High: Lessons from *When Smoke Ran Like Water*," based on her recently published book. About 40 people made their way to the AAAS Building on yet another snowy day in Washington, D.C., to hear Dr. Davis speak and answer questions and to have her sign copies of her book.

The Ecological Risk Analysis specialty section, led by David Kent, provided the second quarterly seminar as a day-long symposium on 3 April, cosponsored by the Chesapeake and Potomac Regional Chapter (CPRC) of the Society of Environmental Toxicology and Chemistry (SETAC). The symposium was held at the Philip Merrill Environmental Center, the flagship headquarters of the Chesapeake Bay Foundation in Annapolis. The meeting theme was "Integrating Ecology and Human Health" and featured a total of 10 presentations addressing various ecological, human health, and integrated issues. Both NCAC and CPRC were represented by speakers from government, academia, and industry—a combination that provided a valuable blend of viewpoints.

Volunteers are needed for developing the 3rd and 4th Quarter seminars for NCAC. Please contact Kara Morgan

(kmorgan@rti.org), David Kent (dake@weinberggroup.com), or one of the specialty group leaders.

NCAC also has formed a "Host Committee" to assist Caron Chess and the rest of the program committee planning for the SRA Annual Meeting to be held in Baltimore, Maryland, in December 2003. NCAC is facilitating the local contacts and helping to spread the word about the meeting. NCAC members Ron Brown, Bob O'Connor, and Katherine McComas are all on the program committee. Any one else interested in helping can contact these NCAC members directly and offer their assistance.

The NCAC Web site is expanding. For those who haven't checked it out yet, please see <http://groups.msn.com/nationalcapitolareachaptersra>. We have been steadily building up the site membership, which provides enhanced and valuable services over nonmember visits. For example, site members can participate in discussions, post notices, upload and download documents, and get notifications of upcoming events. What it comes down to is members can fully participate in the Chapter activities, while nonmembers of the site can mostly just watch. Remember—being a member of NCAC does not automatically make you a member of the Web site—you must go to the site and request to join.

Ohio Valley Chapter

John Lowe, Secretary

The Ohio Valley Chapter held officer elections at the end of 2002. The new officers are President Kenneth Poirier, Kendle International, Inc.; President-elect Andy Maier, Toxicology Excellence for Risk Assessment (TERA); Past President Steve Weldert, SRW Environmental Services; Secretary John Lowe, CH2M HILL; Treasurer Patricia Nance, TERA; and Counselors Ed Pfau, Hull & Associates, and John Lipscomb, U.S. Environmental Protection Agency, Office of Research and Development.

Activities planned for this year include a spring symposium, a program of lunchtime technical presentations, and the annual business meeting in the winter. The spring sym-

posium will be held in June 2003 with the theme "Risk Assessment in the Age of Terrorism." Topics may include preparedness, response, risk communication, and assessment of risks associated with different terrorist threats. The Chapter is also updating its Web site, which will include news, updates on events and activities, as well as presentations, links, and other downloads.

Research Triangle Chapter

Paul Schlosser, Past President

The Research Triangle Chapter (RTC-SRA) decided at the end of 2002 to try a different governance structure. Instead of electing officers to designated positions we will have a set of seven board members, each serving for two-year terms, with three or four elected each year. At its first meeting each year, the board will then select a chair, a treasurer, and a secretary from among its members to serve for that year. Previously elected officers who will complete their terms as board members this year are Rob Dewoskin (U.S. EPA), Shawn Sager (ARCADIS), Paul Schlosser (CIIT Centers for Health Research), and Woody Setzer (U.S. EPA).

Board members elected to begin terms this year are Greg Blumenthal (ICF Consulting), Jeff Hayward (UNC-Chapel Hill), and Elaina Kenyon (U.S. EPA). Officers for 2003 will be Chair Woody Setzer, Secretary Shawn Sager, and Treasurer Jeff Hayward.

Changes to Chapter Contact List

Please note the following changes to the Chapter contact list that was printed in the First Quarter 2002 issue of the RISK newsletter:

Ohio Chapter: John Lowe, Secretary, phone: 937-228-3180 x247, fax: 937-228-7572, email: jlowe@ch2m.com; Kenneth Poirier, President, phone: 513-345-1531, email: poirier.kennetha@kendle.com

Research Triangle Chapter: R. Woodrow Setzer, Jr., Chair, phone: 919-541-0128, fax: 919-541-4284, email: Setzer.Woodrow@epamail.epa.gov



Grant to Fund Educational Opportunities for African, Latino, and Native American College Students in Risk Analysis and Risk Management Disciplines

The Society for Risk Analysis (SRA) has received a \$15,000 grant from the ExxonMobil Foundation for the upcoming year to provide educational opportunities for African, Latino, and Native American college students who are interested in pursuing one of the risk analysis and risk management disciplines. Potential students should be enrolled in a college or university program in biology, chemistry, economics, psychology, geography, physics, environmental management, or other risk analysis-related disciplines. The competition for three student positions is open to all members of SRA.

If you are interested in hosting an intern, please contact Michael Greenberg, the SRA council member who worked with ExxonMobil to obtain the funding and who is administering the program for SRA (phone: 732-932-0387, x673; email: mrg@rci.rutgers.edu). Dr. Greenberg will provide you with the details and some examples. For example, last year an African American female student worked with Greenberg on a comparison of the legal restraints of redeveloping a Superfund site versus a brownfield site. Laboratory projects in toxicology, field studies in epidemiology, water resources, environmental justice, ecological risk analysis, and many other projects are welcome.

We have sufficient funds to support three students, but we hope to increase the size of the funding so that the Society can help increase the representation of African, Latino, and Native American populations in risk analysis and management.



Committees

Chapters and Sections Committee

Jonathan Wiener, Chair

SRA Speakers Bureau

Each year the Society for Risk Analysis (SRA) makes available a modest fund to assist local SRA chapters with the travel and lodging expenses of bringing a current or former SRA official to speak at a local chapter meeting. This travel funding provides an excellent opportunity for chapters to have nationally recognized risk experts participate in their local meetings. It also enables the international SRA to publicize its role to the chapters and to build enthusiasm for chapter and SRA membership.

The SRA is now contacting all current SRA Officers and Councilors, SRA Fellows (who include former Presidents), and other former SRA Officers to ask them to join the Speakers Bureau. If you fall into one of these categories, please complete and return the Speakers Bureau Information Form to the SRA Secretariat right away. (If you have not received the form, please contact the SRA's Executive Secretary at RBurk@BurkInc.com.) The SRA will then post a list on the SRA Web site of those willing to give such talks and the topics on which they could speak. Chapters will then be able to contact an individual with an invitation to speak and to coordinate topics, dates, and travel plans; if the parties agree, the chapter could then solicit funding support from the SRA. Funding will be available to chapters on a first-come-first-served basis.

Historians

Paul Deisler and Dick Schwing, SRA Historians, recently prepared and sent a report to SRA President Bernard Goldstein informing him that the complete text of their work, *History of the Society for Risk Analysis Through the Year 2000*, has been drafted. Some further corrections are being made to the draft, which was forwarded for final, professional editing at the end of April. When editing is completed the history will be ready for publication.

Conferences and Workshops Committee

Scott Ferson, Chair

Workshops at the World Congress

Several workshops are planned for the day before the World Congress to be held this coming June in Brussels.

- Workshop 1: Methods and Guidance for Health Risk Assessment of Chemical Mixtures
- Workshop 2: Beyond Monte Carlo: An Introduction to Imprecise Probabilities
- Workshop 3: A Science-Based Risk Communication Revolution: Applications and Case Studies in Military Settings

There may be more workshops added to this list. Check the SRA Web site (<http://www.sra.org/events.htm>) for further information about the workshops and information on how to register for them.

Workshop Proposals Welcome

The Conferences and Workshops Committee heartily welcomes proposals any time for events to be held with the annual meeting (in Baltimore this December) or at any time during the year. Proposal forms and sample budgets can be found on the Events page of the SRA Web site at www.sra.org/events.htm#workshop. The simplified proposal process consists of answering several questions and preparing an anticipated budget. Proposals for SRA workshops should be sent to the Chair Scott Ferson at scott@ramas.com.

Watch the Web site for a helpful organizer's checklist which will be posted there soon.

Continuing Education Workshops Successful

The continuing education workshops held on the Sunday before the annual meeting in New Orleans last year were very successful. Over 100 participants attended seven workshops on Bayesian analysis, health consequences of chemical mixtures, bootstrap simulation, dose-response modeling for microbial risks, cost-benefit analysis, and probabilistic and nonprobabilistic arithmetic. Registration receipts and accounting projections suggest that the workshops will have raised over \$7,000 in revenue. According to the SRA's new policy, this amount will be evenly divided between the Society and the workshop organizers.

Welcome Mike Johnson

The Conferences and Workshops Committee extends a hearty welcome and thanks to Mike Johnson of the SRA Secretariat, who has recently joined the Committee. Mike replaces Micah Sauntry who has left to pursue life adventures.

Aerospace Workshop Reprised

The SRA workshop "Risk Analysis of Aerospace Systems II: Mission Success Starts with Safety" was held 28-29 October 2002 at the Key Bridge Marriott in Arlington, Virginia. There were 15 participants from industry, government, and universities. The lecturers were Michael Stamatelatos, Agency Manager of Risk Assessment at NASA; Homayoon Dezfuli of ISL Corporation; Joe Fragola of Aerospace Corporation; Todd Paulos, an independent NASA contractor; and Clay Smith of Futron Corporation. The organizer of the workshop was Jim Lambert of the SRA Engineering Specialty Group and the University of Virginia Center for Risk Management of Engineering Systems. Topics included tutorials of event and fault trees and master logic diagrams, trade studies in science and explorations missions, design and operational evaluations of the Space Station and Shuttle, mathematical simulation of rocket engines, and philosophy and context of risk analysis in aerospace systems. Risk analysis is invaluable as much to tell us what not to do as to improve and optimize such systems. Risk analysis brings a systematic process of identifying and addressing potential failures, as distinguished from merely getting the probabilities. Risk analysis has been consistently useful to achieve cost savings in prominent missions.

NATO Workshop on Comparative Risk and Environmental Decisions

A NATO (North Atlantic Treaty Organisation) Advanced Research Workshop (ARW) cosponsored by SRA, "Comparative Risk Assessment and Environmental Decision Making," took place in Rome (Anzio) on 13-16 October 2002. The meeting provided a unique opportunity to discuss state of the art in comparative risk assessment and application of risk-based methods and tools in developing countries in general and specifically in the Mediterranean region. Among the ARW participants were representatives of government agencies, industry, private consulting firms, and academia. Even though there were only about 40 participants, some 20 countries were represented. According to many participants, the workshop was unusual because it provided an opportunity for informal discussions rather than only plenary presentations.

One of the meeting objectives was to initiate joint activities between institutes and organizations. As a result of the discussions, several joint activities were proposed, including (1) a topical meeting on environmental security in the developing countries, (2) a topical meeting on pesticide use in developing countries, (3) development of Web-based resources for developing nations, such as an online SRA members directory, Web sites, and newsgroups, (4) formation of the new Mediterranean Chapter of the Society for Risk Analysis with headquarters in Egypt (chapter bylaws have been submitted to SRA), and (5) submission of joint collaborative proposals and grants.

Regulatory Peer Review Forum

A one-day symposium, "Conflict, Consensus, and Credibility: A Forum on Regulatory Peer Review," an SRA forum, was held on 29 May 2002 in Arlington, Virginia. Organized by Rick Belzer, Heather Douglas, Resha Putzrath, and Jim Wilson, the forum brought together 10 speakers from academia, private industry, nonprofit, and government sectors to discuss the growing set of concerns over regulatory peer review. With over 40 attendees, the speakers addressed both theoretical and practical concerns with defining peer review, the process of selecting peer reviewers, setting agendas for review panels, and presenting panel results. A follow-up workshop is in the planning stages.

Foodborne Hazards Conference

The First International Conference on Microbiological Risk Assessment, focusing on foodborne hazards, was held 24-26 July 2002 at the University of Maryland, College Park. Almost 500 participants attended the event, which was cosponsored by the SRA, the U.S. interagency food safety Risk Assessment Consortium, the Joint Institute for Food Safety and Applied Nutrition, and the Joint Institute for Food Safety Research. This was the first international conference on this subject. There were conference sessions on microbiological risk assessments, resources for risk assessors, modeling challenges, nonbacterial microorganisms, intervention strategies for pathogen control, and risk communication (<http://www.foodriskclearinghouse.umd.edu/RACconference1stannouncement.html>). 



Specialty Groups

Ecological Risk Assessment Specialty Group

Igor Linkov, Chair, and Randy Rytí, Chair-Elect

The Ecological Risk Assessment Specialty Group (ERASG) is actively preparing for the Society for Risk Analysis (SRA) Annual Meeting in Baltimore. The following sessions are planned:

- Special session on regional ecological issues
- Joint session between the ERASG and the Economics Specialty Group
- Microbial risk assessment
- Evaluating and enhancing ecological modeling for risk assessment of transgenic organisms
- Risk assessment for biological agents
- Joint session with SETAC (Society of Environmental Toxicology and Chemistry) on incorporation of habitat considerations in ecological risk assessment

In addition, a continuing education workshop on spatial techniques in ecological risk assessment is also planned. We would like to encourage all interested members to submit session proposals or individual papers. Please contact Igor Linkov (ilinkov@icfconsulting.com) or Randy Rytí (rryti@neptuneinc.org) if you would like to request support from ERASG for your session/workshop proposal.

SRA members who live in the desert southwest (Arizona, New Mexico, and Nevada [except Reno]) should be aware of a new SETAC chapter being formed for their states. Please

contact Linda Meyers-Schone (linda.meyers-schone@amec.com) for more information. Linda is looking for members and also people interested in serving on the board of the SETAC-Desert Southwest Chapter.

ERASG members will also be pleased to learn that an initial Web site for the specialty group has been developed. Please visit the SRA Web site to browse the content for our specialty group.

ERASG and SRA are cosponsoring a NATO Advanced Study Institute on "Strategic Management of Marine Ecosystems." It will take place 1-11 October 2003 in Sophia Antipolis (Nice-Cannes area), France. The demand for new advanced methods for dealing with environmental problems in large marine ecosystems is increasing worldwide. Marine ecosystems are significantly contaminated by industrial, agricultural, and municipal runoff and discharges from port operation, as well as being physically disturbed due to anthropogenic activities worldwide. These problems are especially acute in the Middle East, where protection of marine environment and water resources is a matter of survival for many nations.

The NATO Advanced Study Institute (ASI) will present a series of lectures from well-known specialists in the areas of ecology, oceanography, environmental science, and engineering, as well as decision science and economics. It is expected that 80 scientists will attend the workshop, which will include invited lectures and contributed papers. The main objective of the ASI is to cross-fertilize two separately

evolving schools of environmental science and engineering with decision support and management. In addition, this Institute will provide a forum for experts from academia, government, and industry to exchange ideas and report recent findings and tools in the area of environmentally sound strategic management of marine environments.

The workshop is organized by Professors J.-M. Proth (Universite de Metz, France) and E. Levner (Holon Academic Institute of Technology, Israel). A limited number of fellowships will be available to qualified students and postdocs. For more information, please contact Igor Linkov, ICF Consulting, U.S. Coordinator, ilinkov@icfconsulting.com.

ERASG and SRA are cosponsoring a NATO Advanced Research Workshop on "The Role of Risk Assessment in Environmental Security and Emergency Preparedness in the Mediterranean Region." It is tentatively scheduled for some time in November 2003 in Israel and Egypt. The workshop is organized by Drs. Igor Linkov (ICF Consulting), Benoit Morel (Carnegie-Mellon University), Mostafa Emará and Abou Ramadan (Egypt), and David Letnik (Israel Academy of Engineering). For more information, please contact Igor Linkov (ilinkov@icfconsulting.com) or Benoit Morel (bm1v@andrew.cmu.edu).

The ERASG will be awarding a \$500 travel award and a \$100 cash award, including a conference fee waiver, to the author of the best student research paper on the topic of ecological risk assessment to be presented at the SRA Annual Meeting in Baltimore. Students with accepted abstracts (which were due by 15 May) will be notified in July and must submit a three- to five-page extended abstract to the ERASG by 15 August to be considered for the best student paper award. Format and abstract content are at the author's discretion. A select number of authors of extended abstracts will be asked to submit a paper to the ERASG by 15 October for final consideration. Abstracts and papers will be blind reviewed by a panel of judges. A prize may not be awarded if the papers received are not of sufficient quality. If cir-

cumstances prevent attendance at the Annual Meeting, the author should arrange for the paper to be presented by someone else. Extended abstracts and papers, or questions regarding their submission, should be directed to ERASG Chair Igor Linkov, phone: 781-676-4053 or email: ilinkov@icfconsulting.com.

Food and Water Safety Risk Specialty Group

Cristina McLaughlin, Chair, Greg Paoli, Vice-Chair, Peg Coleman, Secretary

Greetings fellow SRA members.

The Food and Water Safety Risk Specialty Group (FWSRSG) is organized to focus on the particular risk analysis issues and challenges posed by hazards in the food and water consumed by humans and animals. Of primary concern are biological, chemical, and physical hazards that are naturally occurring or result from substances intentionally or unintentionally added during production or processing (for example, pesticides, food additives) and drinking water disinfectants.

The FWSRSG is having a busy year planning events for the upcoming SRA meeting in Baltimore. One of the objectives of the FWSRSG is to foster and promote multidisciplinary interaction and collaboration among our colleagues for food and water safety drinking issues. The FWSRSG group is currently organizing a symposium on use of epidemiological (food borne disease outbreak) data in risk assessment. The FWSRSG is also in the midst of coordinating other topics for symposia, such as risk assessment of genetically modified organisms, risk assessment of irradiated food, risk assessment of acrylamide in food, risk issues on food security and traceability, and risk assessment issues related to nutrition.

If you would like more information about the activities of the specialty group, you may contact Cristina McLaughlin at cmclaugh@cfsan.fda.gov, Greg Paoli at gpaoli@decisionanalysis.com, or Peg Coleman at peg.coleman@fsis.usda.gov. 



News and Announcements

Jeanne X. Kasperson Research Library

The Jeanne X. Kasperson Research Library was formally dedicated Thursday, 24 April 2003, in a ceremony at Clark University in recognition of the late Professor Kasperson's role in establishing the library. Introductory remarks were given by Samuel J. Ratick, Director of the George Perkins Marsh Institute, and a welcome was extended by John Bassett, President of Clark University. "Risk from the Tower: An Elevated View" was the Keynote Address presented by Eugene A. Rosa, the Edward R. Meyer Distinguished Professor of Natural Resource and Environmental Policy at Washington State University. A Sustainability Science Panel was led by Robert W. Kates who was joined by panel members David Angel, Nicholas Malizia, Susi Moser, Gil Pontius, and Barbara Thomas-Slayter. An Appreciation of Jeanne X. Kasperson, given by Pat Benjamin, Dominic Golding, J. Scott Jinsto, and Mary Melville, was followed by a wine and cheese reception at the Library.

Acute Exposure Guideline Methodology

The Research Triangle Chapter of the Society for Risk Analysis (RTC-SRA) will be holding the mini-symposium "Acute Exposure Guideline Methodology" Thursday, 5 June 2003, 2:45-5:00 p.m., at the CIIT Centers for Health Research (Large Conference Room), 6 Davis Drive, Research Triangle Park, North Carolina.

The speakers will be George Woodall (U.S. EPA) on the development and uses of acute reference values, Ken Brown on the use of categorical regression for acute assessments, and Will Boyes (U.S. EPA) on the use of physiologically based pharmacokinetic (PBPK) models to replace default methodology. Each speaker will present a 30-minute talk, with a panel discussion at the end. A refreshment break will be provided. There is no charge for the event, but RSVP to Paul Schlosser at schlosser@ciit.org or 919-558-1243 by Tuesday, 3 June. Titles, abstracts, and directions to CIIT can be found on the RTC-SRA Web site: www.rtc-sra.org. 



SRA-Europe

Andrea T. Thalmann, Information Officer

It is a pleasure for the Society for Risk Analysis-Europe (SRA-E) to welcome Olivier Salvi, Walter Stahel, and Scira Menoni as the three new members of the SRA-E Executive Committee (EC). They were elected in March 2003 by the European members for a three-year period. A short biographical sketch of the three new EC members of SRA-E follows.

Olivier Salvi is scientific manager at the Accidental Risk Division of INERIS (Institut de Radioprotection et de la Sureté Nucléaire) in France. Educated at the École des Mines d'Alès in France, he graduated as an engineer in environment and industrial risk. He worked between 1995 and 1999 in the Risk Analysis and Modelling Department of INERIS. He conducted safety studies and risk analyses for industrial facilities which fall under the SEVESO. From 1999 to 2001 he was in charge of a research programme regarding risk assessment. In France he was chosen as an expert at the OECD (Organisation for Economic Co-operation and Development) Drafting Group for revising the *Guiding Principle for Chemical Accident Prevention, Preparedness and Response* and at the working group for *Safety Performance Indicators*. Moreover, he took part as an expert in the Phare twinning projects in Hungary, Slovenia, and Poland assisting the implementation of the SEVESO II Directive. He initiated and coordinated a European RTD (research, technological development, and demonstration) project in the 5th Framework Programme of the European Union dealing with the development of an integrated risk assessment methodology in the context of the SEVESO II Directive (project called ARAMIS).

Walter Stahel, an alumnus of ETH (Swiss Federal Institute of Technology) in Zurich, has a degree in architecture. In 1987 he joined the Geneva Association (International Association for the Study of Insurance Economics) as director in charge of risk management research and deputy secretary general. He is a founder-director of the Product-Life Institute. Stahel is editor of the *Risk Management Newsletter* and associate editor of the *Geneva Papers on Risk and Insurance—Issues and Practice*. Stahel worked as an architect and as a project manager at the Battelle Geneva Research Cen-

tres (Centre for Applied Economics) in Geneva, Switzerland, in the fields of business strategy and feasibility studies. In 1980 he was active in a holding company with worldwide activities in railway maintenance, shipping, and real estate. Stahel has been a member of the first Environmental Council of the German Railways, Berlin 1996-2000, and of the Umweltrat of the Umwelt Bank, Nürnberg. He was a member of the Jury of the Sustainable Growth Awards of DuPont de Nemours, Wilmington, Delaware. He is a member of the Eco-Dream-Team of Interface Inc., in Atlanta, Georgia. As a consultant on policies and strategies of a sustainable development to the European Commission in Brussels he participated at the "Futures 2010" project as well as ETAN and STRATA projects on research policy, risk management, and global climate change. Furthermore, he works as a consultant on strategic issues for large industrial companies (including BP, CORUS, Cookson, and Kodak) as well as SMEs and national and regional governments. Stahel lectures at universities in Europe, Japan, and the United States. Currently he works on the issue regarding sustainable and competitive production. He is an associate member of ESTO (European Science and Technology Observatory).

Scira Menoni, PhD, is a researcher at the Politecnico di Milano in Italy. At her home university she lectures on environmental analysis, assessment, and planning techniques in risky areas. Also, since 1998 she is a lecturer of the post-graduate program titled Analysis and Management of Geological Risks in cooperation with UNESCO (United Nations Educational, Scientific and Cultural Organization) and the United Nations University at the CERG (Certificat d'Études des Risques Géologiques) Department at the Geneva University (Switzerland). She recently became an associate professor. Her research field includes technological and natural risk prevention with a focus on nonstructural measurements. She is interested in land-use planning and urban development control. From 1996 to 1998 she participated in the Sergisai European Project and from 1998 to 2000 she consulted in the TEMRAP European Project (the European multihazard risk assessment project). 



Member News

Richard C. Pleus

Richard C. Pleus, PhD, Director and Toxicologist of Intertox, Inc., contributed two chapters to the recently published *Biological Risk Engineering Handbook: Infection Control and Decontamination*.

How biological agents affect human health is an important public health topic that has received national attention due to recent concerns of bioterrorism. Dr. Pleus was lead author for Chapter 4, *Toxicology*, as well as coauthor of Chapter 5, *Risk Assessment*. The book, edited by Martha J. Boss, CIH, CSP, and Dennis W. Day, CIH, CSP, both of URS Corporation in Omaha, Nebraska, and published by Lewis Publishers, addresses the state of the science of biological agents.

"I decided to assemble a team of authors to address the

subject of biological risk as an interdisciplinary topic," said Boss. "Dr. Pleus provided just the right mix of scientific knowledge and diplomacy to focus the team of leading expert scientists in the discussion of toxicology and risk assessment. As with any developing science, assessing biological risk remains a challenge. Dr. Pleus's unique gift was to direct intellect toward providing state of the art dialogue and information transmittal."

Kenneth A. Poirier

Dr. Kenneth A. Poirier has departed Toxicology Excellence for Risk Assessment for a new employment opportunity at Kendle International (www.kendle.com). His new email address is poirier.kennetha@kendle.com. 



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RISK newsletter and SRA Web Site Advertising Policy

Books, software, courses, and events may be advertised in the Society for Risk Analysis (SRA) RISK newsletter or on the SRA Web site at a cost of \$250 for up to 150 words. There is a charge of \$100 for each additional 50 words.

Ads may be placed both in the RISK newsletter and on the Web site for \$375 for 150 words and \$100 for each additional 50 words.

Employment opportunity ads (up to 200 words) are placed free of charge in the RISK newsletter and on the SRA Web site. Members of SRA may place, at no charge, an advertisement seeking employment for themselves as a benefit of SRA membership.

Camera-ready ads for the RISK newsletter are accepted at a cost of \$250 for a 3.25-inch-wide by 3-inch-high box. The height of a camera-ready ad may be increased beyond 3 inches at a cost of \$100 per inch.

The RISK newsletter is published four times a year. Submit advertisements to the Managing Editor, with billing instructions, by 15 January for the First Quarter issue (published mid-February), 15 April for the Second Quarter issue (mid-May), 15 July for the Third Quarter issue (mid-August), and 15 October for the Fourth Quarter issue (mid-November). Send to Mary Walchuk, Managing Editor, RISK newsletter, 115 Westwood Dr., Mankato, MN 56001; phone: 507-625-6142; fax: 507-625-1792; email: mwalchuk@hickorytech.net.

To place an employment ad on the Web site, fill out the online submittal form at www.sra.org/oppty.php. To place other ads on the Web site contact the SRA Webmaster at webmaster@sra.org. Ads placed on the Web site will usually appear several days after receipt. For additional information see the Web site at www.sra.org/policy.htm#events.

Deadline for RISK newsletter Submissions

Send information to be included in the **Third Quarter 2003** SRA RISK newsletter, which will be mailed at the beginning of August, to Mary Walchuk, RISK newsletter Managing Editor (115 Westwood Dr., Mankato, MN 56001; phone: 507-625-6142; fax: 507-625-1792; email: mwalchuk@hickorytech.net) no later than **20 June**.

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