



RISK *newsletter*

Published by the SOCIETY for RISK ANALYSIS

Volume 19, Number 3

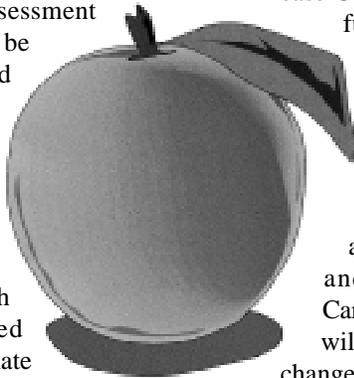
Third Quarter 1999

“The Future of Risk Analysis in the 21st Century”

**1999 Society for Risk Analysis Annual Meeting
5-8 December, Atlanta, Georgia**

Roger Kasperson, SRA President-elect

The turn of the century arrives with high interest in the United States, Europe, and Japan in the use of risk analysis in public policy. There is also controversy over risk assessment and how it may best be practiced and linked with democratic and regulatory processes. Also new controversies are appearing where risk analysis can make major contributions, such as with genetically modified foods and global climate change. The field, meanwhile, continues to make major strides in developing methodologies and techniques for analyzing ecological risks, and this is a rapidly growing interest among members of the Society for Risk Analysis (SRA). One of the frontiers that will be explored at the 1999 SRA Annual Meeting, “The Future of Risk Analysis in the 21st Century,” is how risk assessment can contribute to clarifying environmental justice issues. Educational processes that might improve how institutions and ordinary people evaluate risk has been a perennial question that will become even more important in the next century, and the Annual Meeting will have several sessions devoted to how risk concepts are taught in the schools as well as how various management institutions train their people in risk notions.



The plenary session will explore three major problems almost certain to become principal areas of national and international concern. Steve Ostroff, Deputy Director of the Centers for Disease Control, will look into the future to highlight potential continuing and new public health threats that will confront the globe. M. Granger Morgan, a leading risk analyst for many years and Dean of Engineering and Public Policy at Carnegie Mellon University, will examine how the rapid changes in information technology are changing patterns of risk as well as opportunities for improved risk assessment. Sheldon Krinsky of Tufts University, a leading analyst of biotechnology risks, will look into the future of biogenic risk challenges to society.

This year’s Annual Meeting will mount a series of roundtables—open discussions for meeting attendees—on controversial risk matters. Included will be such issues as:

1. How can we assure the quality of science in the use of peer review in the regulatory arena?
2. The precautionary principle is gaining wide use in Europe. How compatible and incompatible is this principle with risk assessment? What are the implications of its growing use?

(Meeting, continued on page 2)

Inside RISK

President’s Message	2
RISK Assessments	3
1999 Annual Meeting	3
Regulatory Risk Review	4
News and Announcements	5
Specialty Groups	6
Journal Notes	8
Member News	8
Chapter News	9
Risk Education Resources	10
Committees	11
SRA-Europe	14
Advertisements	15

Check out our newest column, “Risk Education Resources,” for information on education opportunities and risk resources in the many fields of risk analysis.

President's Message

In this issue of the RISK newsletter, Dave Clarke's "Regulatory Risk Review" column (page 4) comments on the recently arrived, much-anticipated National Academy of Sciences (NAS) report on so-called endocrine "disruptors."¹ The term "endocrine disruption" itself is a classic example of overzealous application of the precautionary principle (and poor application of risk analysis) by assuming an unproven mode of action for a weakly established environmental health risk. In a way, the endocrine disruption debate resembles the evolution versus creationism controversy that was recently brought to our attention again courtesy of the Kansas State Board of Education. In both cases, the debates boil down to a question of science versus ideology.

In the case of evolution versus creationism, the argument is that because evolution can't be proven, creation is just as valid an explanation of human origin and both—or neither—should be taught in the science classroom. Of course, this argument ignores the whole basis for the scientific method. If scientists were presented with data consistent with the conclusion that the earth is only 10,000 years old, they would alter the theory of evolution to explain the data. By contrast, creationists do not alter their "theory" to explain the body of data consistent with evolution and a much older planet. Creationism is a conclusion looking for data.

Similarly, in the case of hormonally active agents (the politically correct term adopted by the NAS committee that wrote the report), instead of using the scientific method, people started with a theory based on anecdotes and then tried to find supporting data that were consistent with that theory. The NAS committee was convened to try to determine what the science could tell us about the theory and what it could not—in essence, applying the scientific method late in the game to see what conclusions were possible given the data. Meanwhile, instead of waiting for the scientific process to take place and understandably reacting to public fears, Congress acted at the first sign of a theory. And because that theory was sufficiently alarming, many tax dollars and much emotional energy have been spent on a proposed testing program that is far ahead of the science.

My column in the last issue of the newsletter exhorted Society for Risk Analysis members to defend risk analysis from those who would misuse the precautionary principle by ignoring science. The endocrine disruption debate illustrates the same issue, which is really just the newest skirmish in the age-old battle between empirical science and antiempirical ideology. Recall that when Galileo was forced by the church to recant his insistence that the earth revolved around the sun, and not vice-versa, he did recant but added under his breath that the earth would still revolve around the sun. A new book, *Protecting Public Health and the Environment, Implementing the Precautionary Principle*², puts the choice this way: "Almighty Science versus Nature." Wes Jackson states in the foreword, "Those of us who embrace or look to nature as a standard or measure rather than seek to bring more science to subdue [sic] nature are in a distinct minority." But how have humans endeavored to understand nature? Ideology is one way, science another. Creationism is, after all, an ideological approach to understanding nature. Risk analysis, by contrast, uses science to understand, describe, and help us make decisions about protecting nature. Even back in the 17th century, Isaac Newton recognized that hypotheses about nature that are not based on empirical evidence "have no place" in science.

Given a choice between ideology and science as a basis for protecting nature, I'd have to go for the science.



Gail Charnley

¹ For information on the NAS report, *Hormonally Active Agents in the Environment*, go to <www.nas.edu>.

² Edited by Carolyn Raffensperger and Joel Tickner; Island Press.

(Meeting, continued from page 1)

3. In an influential recent report, the National Research Council called for a risk analysis that is an "analytic and deliberative" process. How can such a process best be structured and implemented? What changes will follow in its wake?

4. Data disclosure surrounding risk research is emerging as a major policy and ethical issue. What should be the norms of the risk community in this area? What role, if any, should SRA take in approach and support for its members?

5. Finally, there is the perennial question taking on more importance every year—should the Society take stands on controversial public policy matters? How can the Society use its extensive risk assessment resources to inform public policy matters?

In addition to these features of the Annual Meeting, there will be a special panel bringing together lawyers and risk professionals on the question of citizen involvement in Superfund risk assessment. A special series of sessions on Tuesday will address the analysis of uncertainty in assessing the health risks of ionizing radiation. New tools and models for analyzing exposure assessment will be examined. A new theme and concern in risk management is dealing with cumulative risk; frameworks for addressing this class of risk problems will be the subject of a special symposium.

The meeting will also recognize outstanding research conducted by university students, and a number of award-winning papers and posters will be presented in Atlanta.

Special workshops at the meeting will treat such topics as developing site-specific bioavailability data for inorganics in soil; microbial risk assessment to improve food safety; ecological risk assessment and management; risk assessment using interval, fuzzy, and probabilistic arithmetic; and software for improved risk assessment.

More meeting information can be found in the preliminary program which has been sent to SRA members and is on the SRA Web site (www.sra.org). ◇◇



RISK Assessments

Gail, I enjoyed your President's Message (RISK newsletter, Second Quarter 1999) in response to the waning risk assessment article. I thought your perspective and understanding (and relationship with the precautionary principle) was extremely well presented.

As a former environmental risk assessor who has "graduated" onto project and financial risk analysis and decision making, I would like to point out that "risk management" is one of the most rapidly growing corporate governance areas. A common appointment today is that of Chief Risk Officer (which may be combined with or separated from the Chief Strategy Officer) under which corporations are tending to deal with risk (and opportunity) on a more holistic basis. "Environmental risk assessment" is just one of the many risk acknowledgements in corporate governance—but is wrapped up under environmental and safety risk, political risk, legal risk, ethical conduct risk, commodity price risk, and the the list goes on. The precautionary principle is, in itself, a form of misapplied risk management. The thought of "0" risk is incomprehensible in a highly uncertain and changing world—and proponents of the precautionary principle are actually creating "more risk" and unreasonable expectations for a concerned public.

I do hope your message will encourage the scientific community to venture forth in support of "good science" and the thoughtful use of risk assessment as an accountable and transparent means to improve and maintain the quality of life.

David Evans, Ph.D.

Senior Risk Analyst, CSC Project Management Services

Gail, your editorial in the Second Quarter 1999 Society for Risk Analysis (SRA) newsletter on the waning days of risk assessment was great. It's good to see the leadership of both SRA and the Society of Toxicology take an active role in disputing the hokum being distributed about our fields (Jay Goodman Editorial in the Spring 1999 *Society of Toxicology Communiqué*). Also, thanks for the alert on the

rachel.org site. I've been looking for material for a talk I'm giving this fall to a local group that debunks junk science. Rachel's site provided wonderful grist. The junk science group is the Philadelphia Association for Critical Thinking (www.phact.org) (I'm PhACT's first toxicologist).

If you want more on the history of risk, check out *Against the Gods, The Remarkable Story of Risk* (Peter L. Bernstein, New York: John Wiley & Sons, Inc., 1996). The book suggests that the defining moment between ancient times and the modern world was the recognition that probability/risk existed (circa 1650 AD). Before this, anything that occurred by chance was thought to be controlled by the gods. Rachel's comments aside, the book points out that everything is now based on risk assessment, not just health and engineering—stocks, bonds, mortgages, credit, insurance, quality control, failure ratings of aircraft parts (and most complex parts)—even farmers use futures markets (which are risk-assessment based) to help determine which crops to plant and when to harvest and sell.

I think insurance companies would be surprised to find out that the tenet on which their industry is based, i.e., risk assessment, is "waning." Maybe the field of mathematics will be next (after we eradicate all chlorine molecules from the earth). Please keep your messages coming. While SRA members like me can have small impacts by promoting good science through groups like PhACT, comments from leaders like you are much more far reaching. I look forward to your next commentary.

David Cragin, Ph.D.

Diplomate, American Board of Toxicology

We welcome letters from RISK newsletter readers concerning topics in the newsletter or others of interest to SRA members. Please limit the letters to 250-300 words and send them to RISK newsletter Managing Editor Mary Walchuk (525 N. 6th St., Mankato, MN 56001; e-mail: mwalchuk@mctcnet.net; fax: 507-625-1792; or phone: 507-625-6142). Letters may be edited for clarity, grammar, spelling, and length. ◇◇◇

1999 Annual Meeting Information

The 1999 Society for Risk Analysis Annual Meeting will be held at the Marriott Marquis in Atlanta, Georgia, 5-8 December. With the theme "The Future of Risk Analysis in the 21st Century," the meeting will highlight the changing nature of risk, global and transboundary risk issues, new approaches to risk management, and trends in public values and democratic processes to be expected in the coming century.

Meeting Format: The meeting will encompass several types of scientific sessions including Poster Platform, Poster Presentations, Oral Presentations, Symposia, and Workshops.

Exhibits: There will be an exhibition of risk-related and exposure-related products and services at the meeting. Companies or individuals may exhibit computer software, data bases, or other products. For further information on exhibiting, contact Lori Strong or Sue Burk 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 with 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 at 703-790-1745, fax: 703-790-2672.

Programs: Preliminary programs have been 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 were mailed as a part of the preliminary program.

Program Chair: Roger Kasperson, 508-751-4605, fax: 508-751-4600, e-mail: rkasperson@clarku.edu

SRA Secretariat: 703-790-1745, fax: 703-790-2672, e-mail: sra@BurkInc.com



Regulatory Risk Review

Herculean Labors

David Clarke

Chemical Manufacturers Association

Senior Policy Advisor

At long last, after more than three years of deliberation, a divided National Research Council (NRC) committee on 3 August released its much-anticipated report, "Hormonally Active Agents in the Environment," delimiting areas of consensus and areas of disagreement on the highly controversial thesis that widespread adverse effects are occurring in wildlife and human health as a result of exposures to environmental levels of chemicals that mimic hormones.

Among the many areas of consensus reached by the diverse committee was the subtle but important agreement that the term "endocrine disruptors" should be replaced with the term "hormonally active agents" (HAAs). "Endocrine disruptors" is "fraught with emotional overtones and was tantamount to a prejudgment of potential outcomes," the committee decided early in its deliberations, noting that the term implies modes of action "that are in fact unknown." The term HAAs imposes a less restrictive "semantic filter" and recognizes that the subject under review includes antiestrogenic, antiandrogenic, and other hormonal activities whose actions are not all mediated by known hormone receptors. "Indeed, the mechanisms underlying many of the effects of environmental contaminants on a variety of systems in animals and humans have not been elucidated," the committee concluded in deciding to adopt a new name for the problem under study. Other terminology also prompted committee debate, including the term "environmentally relevant" exposures to HAAs. "In much of the published literature the committee reviewed, distinctions between environmental concentration, exposure, and dose often are not made. This failure can reduce the relevance and value of research results," according to the NRC report. William Shakespeare's question, "What's in a name?" is partially answered by this report, and it turns out to be a lot.

To the frustration of some, the intensive scientific review undertaken by the NRC committee, under the chairmanship of Dr. Ernst Knobil of the University of Texas-Houston Medical School, produced the following vacillating conclusion: "Although it is clear that exposures to HAAs at high concentrations can affect wildlife and human health, the extent of harm caused by exposure to these compounds in concentrations that are common in the environment is debated." For those who

have heard alarms clanging with every new wildlife study, the report acts like a towel placed between the bell and the clapper, muting the alarm; for others, who'd hoped the alarms would be muted entirely, the report doesn't go far enough, doesn't speak firmly enough.

Yet, in addressing the enormously complex and controversial subject, the committee did in fact reach consensus in a number of areas. For instance, specific mechanisms of action are not well understood for most reported associations between HAAs and various biologic effects. Human data on immunologic effects of HAAs are inadequate to support any definitive conclusions. Environmental HAAs have probably contributed to declines in some fish, Great Lakes birds, Florida's Lake Apopka alligators, and other wildlife populations.

The committee's greatest disagreement concerned "how much we should rely on different positive lines of evidence in evaluating the endocrine-disruptor hypothesis or on the weight that negative evidence should receive," according to the report. Some committee members relied almost exclusively on "experimental evidence and the establishment of a plausible mechanism of action" in evaluating the hypothesis that widespread adverse effects are occurring from environmental HAAs. Others relied more on "consistency and coherence of results among studies and an analogy with other compounds in test systems, especially endogenous sex-steroid hormones" in their evaluations. Much of the division among committee members arose from differences on "basic epistemologic issues" regarding "how we come to know what we know." Some divisions arose because many of the terms used are imprecise and lead to differences in interpretation, according to the report. Disagreements sometimes reflected the need for more research, and sometimes the different judgments of members about the significance of information.

The report's preface refers to the "long and difficult process" the committee underwent and the NRC staff's "truly Herculean labors" in getting the report published. Now that it's out, further Herculean tasks remain in trying to come to grips with this multifaceted scientific issue and in deciding what more should be done given the evidence and what it means. ◇◇

William Shakespeare's question, "What's in a name?" is partially answered by this report, and it turns out to be a lot.

Much of the division among committee members arose from differences on "basic epistemologic issues" regarding "how we come to know what we know."



News and Announcements

Ecological Risk Assessment in the Federal Government

The White House National Science and Technology Council, Committee on Environment and Natural Resources (CENR), has released the report "Ecological Risk Assessment in the Federal Government." The report provides examples of the existing uses of ecological risk assessment (ERA) by federal agencies and illustrates how other types of ecological and scientific assessments used in the federal government might benefit from the use of ERA approaches.

Overall, 33 scientists from nine federal agencies were involved in the effort, which was led by Randy Wentsel, U.S. Environmental Protection Agency (EPA) (formerly with the U.S. Army); Bill Sommers, U.S. Forest Service (USFS); and Bill van der Schalie, EPA. The lead authors for each chapter were James Andreasen, EPA (accidental releases); Susan Ferenc, International Life Sciences Institute (formerly U.S. Department of Agriculture [USDA]) (agricultural ecosystems); David Harrelson, U.S. Fish and Wildlife Service (endangered/threatened species); Anthony Maciorowski, EPA (Federal Insecticide, Fungicide, and Rodenticide Act [FIFRA]); Richard Orr, USDA (nonindigenous species); Bill Sommers, USFS (ecosystem management); Randy Wentsel and Stephen Ells, EPA (Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA]); and Maurice Zeeman, EPA (Toxic Substances Control Act [TSCA]).

The report's eight chapters are grouped into three areas: current ERA uses (FIFRA, TSCA, CERCLA, and nonindigenous species), potential ERA uses (agricultural ecosystems and endangered/threatened species), and related scientific assessments (ecosystem management and accidental releases). Each chapter describes the state of the practice using case studies and features sections on methodology development, risk management, and next steps.

This report demonstrates the application of ERA by federal agencies to a wide array of environmental issues and illustrates how other types of ecological and scientific assessments might benefit through the use of ERA approaches. Continued progress in environmental protection requires the application of sound science to support risk management and decision making. This report indicates the utility of ERA for linking scientific information with informed decision making in the federal government.

The report is available from the CENR Web site (www.nnic.noaa.gov/CENR/cenr.html) and the EPA publication center (800-489-8190 or nscep.mail@epa.gov). The report number is CENR/5-99/001.

For technical questions, contact the authors (wentsel.randy@epa.gov or vanderschalie.william@epa.gov or wsommers/wo@fs.fed.us).

ASTM Symposium Call for Papers

Papers are invited for a Symposium on Productive Reuse of Brownfields and Base Realignment and Closure of Military Installations, sponsored by the American Society for Testing and Materials (ASTM) Committees D-34 on Waste Management and E-50 on Environmental Assessment. The Symposium

will be held 23-25 October 2000 in Orlando, Florida, in conjunction with the standards development meetings of Committee D-34 on 23-25 October 2000 and Committee E-50 on 25-27 October 2000.

Prospective authors are requested to submit a 250- to 300-word preliminary abstract and an ASTM paper submittal form by 1 December 1999 to Dorothy A. Fitzpatrick, Symposia Operations, ASTM, 100 Barr Harbor Dr., W. Conshohocken, PA 19428-2959, 610-832-9677. Paper submittal forms are available from Fitzpatrick or from the symposium chairman. Do not send abstracts by fax or e-mail.

More information is available from Symposium Cochairmen Mark W. Frye, KPMG LLP, 112 E. Pecan St., Suite 2400, San Antonio, TX 78205-1505; 210-270-1633; fax: 210-227-4707; e-mail: mwfrye@kpmg.com; or William P. Gulledge, Eric Agency, Inc., PMB 317, 4094 Majestic Lane, Fairfax, VA 22033-2104; 703-860-4550; fax: 703-860-4740; e-mail: wgulledge@erols.com.

Risk Issues to be Presented at the 2000 Gordon Research Conference "Nuclear Waste and Energy"

The presentation "Risk Communication and Perception" will be given at the 2000 Gordon Research Conference on "Nuclear Waste and Energy." The Conference will be held at Colby-Sawyer College in New London, New Hampshire, 16-21 July 2000.

The objective of this Gordon Research Conference is to bring together experts (a mix of established scientists and young investigators) to discuss current scientific and technical issues concerning nuclear waste and energy in a relaxed atmosphere where formal discussions (morning and evening sessions) and informal exchanges (poster sessions) can take place.

During the four-and-a-half-day meeting, conference participants will explore four broad areas related to nuclear waste and energy: (1) health effects of low doses of radiation, (2) environmental and nuclear waste chemistry, (3) radiation risk communication and perception, and (4) advanced nuclear fuel cycle issues.

The technical program will include the following presentations: **Keynote Addresses:** Pete Domenici (U.S. Senate), Ingmar Grenthe (Swedish Academy of Sciences), and Richard Setlow (Brookhaven National Laboratory [BNL]); **Health Effects-Molecular and Cell Studies:** Chair Tim Jorgensen (Georgetown University), Les Braby (Texas A&M University), Al Fornace (National Institutes of Health), and Charles Geard (Columbia University [CU]); **Partitioning and Transmutation Techniques:** Chair Alan Waltar (Texas A&M University), Rodney Ewing (University of Michigan), and Greg van Tuyle (Los Alamos National Laboratory [LANL]); **Radionuclide Transport:** Chair Gilbert Eggermont (MOL, Belgium), Geert Volkaert (MOL, Belgium), Heino Nitsche (Lawrence Berkeley National Laboratory), and James Davis (US Geological Survey); **Nuclear Waste and Energy:** Chair Art Janata (Georgia Technological University), Oleg Egorov (Pacific Northwest National Laboratory [PNNL]), and Rebecca Chamberlin

(LANL); **Nuclear Fuel Cycle:** Chair Jerry Cuttler (Atomic Energy of Canada Limited [AECL], Canada), Peter Boczar (AECL), Paul Chodak (LANL), and Mike Todosow (BNL); **Health Effects-Organismic and Population Studies:** Chair Tony Brooks (Washington State University), Bob Ullrich (University of Texas-Galveston), and Richard Monson (Harvard University); **Risk Communication and Perception:** Chair Arland Carsten (BNL), Vince Covello (CU), Paul Slovic (Decision Research, Oregon), and Roger Kasperson (Clark University); **Radionuclide Mobility:** Chair Roy Gephart (PNNL), Andrew Felmy (PNNL), and Brian Looney (Savannah River).

The conference is cochaired by Kenneth L. Mossman (Arizona State University) and Jordi Bruno (QuantiSci, Barcelona,

Spain). The conference vice-chair is Gregory Choppin (Florida State University).

Conference organizers are grateful to the following organizations for their generous financial support of the conference: Atomic Energy of Canada, Ltd., Pacific Northwest National Laboratory, and the U.S. Department of Energy.

For further information about the 2000 Gordon Research Conference, please contact Kenneth L. Mossman (ken.mossman@asu.edu). There is limited number of openings remaining for short presentations in the nuclear waste and energy session. Contact Kenneth L. Mossman for further details. If you are interested in presenting a poster, please contact conference vice-chair Gregory Choppin (choppin@chem.fsu.edu). ◇◇



Specialty Groups

Ecological Risk Assessment Specialty Group

Bruce Hope, Chair

The Ecological Risk Assessment Specialty Group of the Society for Risk Analysis has organized a number of activities related to ecological risk assessment for the Society's 1999 Annual Meeting in Atlanta.

On Sunday (5 December) we will have a full-day workshop titled "Introduction to Ecological Risk Assessment and Management" to give participants (1) an introduction to the key components of the ecological risk assessment (ERA) process, (2) a review of current national (U.S. Environmental Protection Agency) and international (Canada, Europe) guidelines for conducting ERAs, and (3) an opportunity to gain familiarity with ERA analysis and decision-making processes by participating in the innovative EcoChallenge simulation game developed by the Ecological Risk Assessment Committee of the American Industrial Health Council.

On Monday (6 December) there will be three platform sessions: "Decision-Making With Ecological Risk Assessment," "Probabilistic Ecological Risk Assessment," and "Population-Level Ecological Risk Assessment."

On Tuesday (7 December) there will be four platform sessions: "Spatial Considerations in Ecological Risk Assessment," "Ecological Risks at Larger Spatial Scales," "Ecological Risks From Non-Native Invasive Species," and "Site-Specific Ecological Risk Assessment Methods."

Following Tuesday's platform session, we'll have the ERA Specialty Session business meeting, followed by a Section mixer.

A poster session will accommodate ERA-oriented abstracts that do not fall in these topic areas or which contain large amounts of graphic or tabular information.

For further information, please contact Bruce Hope at 503-229-6251 or <hope.bruce@deq.state.or.us>.

The Food/Water Safety Risk Specialty Group

Debra Street

The Food/Water Safety Risk Specialty Group plans to hold a workshop to immediately precede the Society for Risk Analysis Annual Meeting in Atlanta in December 1999. Don Schaffner has developed this technical workshop. It will emphasize Mi-

crobial Quantitative Risk Assessment, a new and rapidly evolving tool which has important implications for HACCP (Hazard Analysis Critical Control Point) and food safety regulations, as well as for research and teaching. During the conference, a number of sessions on risk analysis issues posed by hazards in food and water will be presented.

If you would like to know more about or wish to join this specialty group, please contact Don Schaffner, Secretary, by e-mail (Schaffner@aesop.rutgers.edu) or phone (732-932-9611, ext. 214).

Risk Science & Law Specialty Group

Wayne Roth-Nelson, Online Casebook Editor

Risk Science and Law Online Casebook

In the years 1997 and 1998, law professors John Applegate (Indiana University) and Wendy Wagner (Case Western Reserve University) compiled contributions of case law analysis and legal commentary provided or selected by themselves and other members of our Specialty Group. This project is our *Casebook of Risk-Based Legal Decisions*, which is ongoing and cumulative. Each year at the Annual Meeting of the Society for Risk Analysis our Group makes a poster platform presentation to expand and update this project.

Our Group's goal is to collect and synthesize the key cases that involved risk analysis and to organize and present them so they are more accessible and useful to legal and scientific risk practitioners. The Casebook incorporates the currently "hot" risk-related cases along with key historical cases. It already is being disseminated annually in hard copy.

The start-up version of the *Online Casebook* on the SRA Web site (www.sra.org) will comprise a major subset of cases that pertain to legal and scientific risk issues linked to toxic chemicals in the environment, food sources, pharmaceutical drugs, and consumer products. Beginning with ten case analyses in this first online edition, we are planning to accumulate added contributions each calendar quarter.

Generally, the online case selections will deal with either judicial review of regulatory health risk assessments or civil litigation of toxic risk or injury claims. We will try to balance the issues of law and science so risk science practitioners as well as environmental and toxic tort lawyers will find ideas germane to their professional interests.

Contents of Online Casebook

First Edition, July 1999

- *Ambrosini v. Labarraque: Admitting Animal and Cell Evidence*
- *Flue-Cured Tobacco Cooperative Stabilization Corporation v. EPA: Judging Complex Scientific Evidence*
- *Hodges v. Secretary of the Department of Health and Human Services: Distinguishing Legal and Scientific Standards of Evidence*
- *Salmon River Concerned Citizens v. Robertson: Justifying Safety Factors in Risk Analysis*
- *Merrell Dow Pharmaceuticals, Inc., v. Havner: Favoring Epidemiological Evidence*
- *AFL-CIO v. OSHA: Admitting Scientific Opinion as Scientific Evidence*
- *Hottinger v. Trugreen Corp.: Testifying With Reliable Evidence*
- *Lakie v. Smith-Kline Beecham: Reaching the Jury With Imperfect Evidence*
- *Berry v. CSX Transportation, Inc.: Admitting Epidemiological Evidence to the Jury*
- *In Re Joint Eastern & Southern District Asbestos Litigation: Attaining Sufficiency With Epidemiological Evidence*

Dose Response Specialty Group

Elisabeth Reese, President

The Dose Response Specialty Group (DRSG) has had a very active 1999 with many activities and initiatives planned.

The purpose of the specialty group is (1) to facilitate the exchange of ideas and knowledge among practitioners, researchers, scholars, teachers, and others interested in dose-response assessment, (2) to encourage collaborative research on dose-response assessment, and (3) to provide leadership and play an active role in advancing issues related to dose-response assessment. The DRSG supports collaborative activities with other specialty groups and disciplines within the Society for Risk Analysis (SRA). All SRA members are welcome to participate and share their views! Some recent and ongoing DRSG activities are summarized below.

DRSG Monthly Telecon Meetings

The DRSG holds teleconference meetings on the first Tuesday of every month (at 3:30-4:30 p.m. Eastern Time) to discuss and plan symposia, proposed workshops, open forums, and other DRSG-sponsored activities on dose-response issues. New members and guests are welcome to join our meetings. To join a DRSG telecon meeting, simply call 202-260-7280. When asked for the four-digit code number, enter 0577#. The discussions are always provocative and interesting!

Announcing 1999 DRSG Student Merit Award Winner

The DRSG is very pleased to announce the winner of the 1999 Student Merit Award in Dose-Response Assessment, Jeffrey E. Korte, a graduate student in the Department of Epidemiology at the University of North Carolina at Chapel Hill. The title of his abstract is "New Strategies for Prediction of Human Cancer Risk." Korte will present his paper at the 1999 Annual Meeting with five other outstanding student papers in

dose response: Perna Banati, Boston University School of Public Health; Kevin P. Brand, Harvard School of Public Health; Anna Makri, Clark University; Susan C. McKarns, Michigan State University; and Frank Ye, National Institute of Environmental Health Sciences.

The DRSG received 11 applications for the Student Merit Award. All submissions were of very high quality and the competition was keen. The DRSG relied on the following seven criteria to evaluate submissions: relevance of the topic to dose response; originality of research (e.g., a reproduced experiment, a modification of an existing study, a whole new line of investigation); significance of the conclusions toward advancement of a principle, line of research, or the field as a whole; degree of complexity of procedures and analyses (development of new, modified, or specialized methods and analytical tools); breadth of the inquiry (multiple phases in a single line of inquiry, sequential outcomes, how much work was done, amount of result); quality of the write-up (clarity, logic, organization); and submitted to or published in a peer-review journal.

Also, the DRSG would like to recognize these students for their work in dose-response assessment: Amy S. Collins (EPA STAR Graduate Fellow), Ryan Hakimi (University of Michigan), Knashawn R. Hodge (Harvard School of Public Health), Nancy Sachs (National Sanitation Foundation International), and Sonia Yeh (Carnegie Mellon University). We are very honored to have such fine student presentations at the upcoming SRA 1999 Annual Meeting in Atlanta and welcome all SRA members to come hear these students discuss their work.

Third DRSG Open Forum (2 November 1999)

The DRSG will sponsor its third 1999 Open Teleforum on Tuesday, 2 November 1999, to discuss a topic in dose response. All SRA members are invited to listen and participate! The first and second DRSG-sponsored Open Forums were huge successes. The first Open Forum focused on "Policy and Professional Practice Issues Raised by the Union of 'Cancer' and 'Noncancer' Risk Assessment" (2 March) and the second focused on "Issues for Risk Assessment of Mixtures" (1 June). Those interested in more information should contact Elisabeth Reese (phone: 202-334-1705; e-mail: ereese@nas.edu).

SRA '99 Sessions on Dose Response

The DRSG welcomes all SRA members to come hear these fascinating sessions on dose response at the 1999 Annual Meeting:

Characterizing Uncertainty in Dose Response, Physiologically Based-Pharmacokinetic Models (PBPK)—General, PBPK—Specific Examples, Resolving Conflicting Data: Appropriate Use of Epidemiologic and Experimental Studies, Comparative Risk: Balancing the Risks and Benefits of Fish Consumption, Factors Affecting Dose Response, Outstanding Student Papers in Dose-Response Assessment, Issues in Dose Response I, and Issues in Dose Response II.

DRSG Specialty Group Contact

For more information on the DRSG or to become a member, please contact Elisabeth Reese, Food and Nutrition Board, Institute of Medicine, National Academy of Sciences, 2101 Constitution Ave NW, Washington, DC 20418; phone: 202-334-1705; fax: 202-334-2316; e-mail: <ereese@nas.edu>. ◇◇◇



Elisabeth Reese



Journal Notes

Elizabeth Anderson, Editor-in-Chief
Risk Analysis: An International Journal

Since our report in the last RISK newsletter, we have accepted several books for review. The titles include the International Agency for Research on Cancer recent monograph on *Quantitative Estimation and Prediction of Human Cancer Risk*, edited by S. Moolgavkar, et al.; The WHO monograph on *Management of Animal Health Emergencies* (relevant to world trade organization issues of conducting risk assessments related to human health, livestock, and plants); *Social Trust in the Management of Risk*, edited by G. Cvetkovich and R. Löfstedt; *Y2K Risk Management*, by S. Goldberg, et al.; and *Should We Risk It?*, by D. Kammen and D. Hassenzahl. These reviews will be appearing in one of the next several Journal issues. We would appreciate receiving your suggestions for future books that you feel should be reviewed for the Journal.

Recently, we have received potential papers as candidates for a "perspective" article section of the Journal. While we will not necessarily always publish a "perspective" section in the Journal, we are pleased to have received several outstanding papers that are strong candidates and invite the submission of additional papers that fit this category.

In the last several months, I have received a noticeable increase in the number of papers from our European membership, including one suggested collection of papers. This increased activity is welcome as we look forward to publishing an even larger number of peer-reviewed papers from the international community. We invite your papers and suggestions for extending our subscription rate and further increasing paper submissions from the global risk analysis communities.

Your Editorial Board staff (Editor-in-Chief and Area Editors) is working closely with the Publications Committee, chaired by Dr. Yacov Haimes, to restructure and refresh the Editorial Board (see page 13). Specifically, we want to have the Board more closely involved in all of the Journal's activities, including peer reviewing a minimum of three papers and reviewing one book per year and providing leadership in solic-

iting articles or special collections of papers on prominent, current issues. In addition, we need to improve the balance of the Board to make it more representative of the technical areas addressed by the submitted research papers; this balance will ensure an active Board that works closely with me and our Area Editors to peer review papers, review books, and invite papers for special topics. I, together with the Publications Committee, will be soliciting your input to this process.

I would like to update you on our editorial staff. We have just received the last paper that was peer reviewed under the leadership of Dr. Paul Deisler who was Area Editor for Health for a number of years preceding Dr. John Evans' appointment last year. With this paper, Dr. Deisler completes his official responsibilities as Area Editor. Once again, I want to thank him for his important contributions during his tenure and to express appreciation for his continuing counsel and interest in the Journal. Unfortunately, John Evans has asked to be relieved of his responsibilities as Area Editor for Health in a transition period to end later this year. As Area Editor for Health, Dr. Evans' contribution has been significant and his suggestions have improved both the peer-review process and the quality of submitted manuscripts.

The Publications Committee and the Council have unanimously approved Dr. Suresh Moolgavkar's appointment to succeed Dr. Evans. We expect that a smooth transition of responsibilities will take place over the next several months. I am very pleased that John Evans has agreed to continue as health editor for the special collection. Finally, Vicki Bier has accepted a second three-year term as Area Editor for Engineering after being unanimously nominated by the Publications Committee and reappointed by the Council.

Our goal is to continue to enhance and expand the Journal's contributions to the risk analysis communities. As we restructure our Board and extend our Journal coverage of books, "perspectives," articles, and special collections, as always, we invite your suggestions and comments. I can be reached at <elanderson@sciences.com>. ◇◇◇



Member News

David M. Hassenzahl

SRA member David M. Hassenzahl is the coauthor with Daniel M. Kammen of the new book *Should We Risk It? Exploring Environmental, Health, and Technological Problem Solving*. Hassenzahl is a graduate student in the Science, Technology, and Environmental Policy Program at the Woodrow Wilson School of Public and International Affairs at Princeton University where his research is focused on the role of risk analysis in policy making. He has been an environmental risk professional in both the public and private sectors.

According to William Ruckelshaus, former Administrator of the U.S. Environmental Protection Agency, "*Should We Risk It?* is a timely and unique book. Its 'hands-on' approach to diverse risk problem-solving and decision-making methods fills a long-existing void. Using real-world problems, it introduces basic and more advanced methods in a clear, evenhanded, and thought-provoking manner. The more people who read it—both those already active in risk policy and those with a general

interest—the better we as a society will be ready to cope with increasingly complex risk decisions. This book will improve both risk-based decisions and the associated public discourse."

Jill Ryer-Powder

Dr. Jill Ryer-Powder is pleased to announce that she has become an independent consultant, providing services in chemical product hazard evaluation, human health risk assessment, material safety data sheet (MSDS) preparation, and litigation support. She was previously the Principal Health Scientist at a national environmental consulting company. Dr. Ryer-Powder was a pioneer in the development of safe exposure levels for petroleum fuels and ammonia. She has more than 12 years of experience in toxicology, MSDS preparation, health risk assessment, and expert testimony. She is currently the president of the Southern California Chapter of the Society of Toxicology. For information, contact Environmental Health Decisions at <jpowder@home.com>. ◇◇◇



Chapter News

Ohio Chapter

Jacqueline Patterson

The Ohio Chapter has presented several programs this summer and has plans for additional talks this fall. In July a symposium on "Topics in Ecological Risk Assessment" was held at the U.S. Environmental Protection Agency (EPA) Cincinnati facility. A variety of speakers presented talks on ecological risk assessment, including Dr. Glenn Suter of EPA on "Directions in Ecological Risk Assessment," Dr. Susan Fisher of Ohio State University on "Use of Critical Body Residues to Interpret Bioaccumulation Data," Dr. Christina Cowan of Procter & Gamble on "Assessing the Fate of New and Existing Chemicals," Dr. Pam Kloepper-Sams of Procter & Gamble on "Environmental Risk Assessment of New Industrial Products," and Dr. Randy Bruins of EPA on "Placing Watershed Ecological Risk Assessment into a Decision Making Framework: More than an Economic Valuation Problem." A lunchtime talk was held on 18 August with Dr. Bill Bishop of Procter & Gamble giving the excellent presentation "Precautionary Principle and Risk Assessment." Three additional lunchtime talks will be held in Cincinnati at various locations this fall, and an after-work get-together is planned for Columbus. A dinner meeting will be held in October in Dayton.

New England Chapter

Jo Anne Shatkin, President

Under the direction of Dave Brown of Northeast States for Coordinated Air Use Management (NESCAUM), the New England Chapter of the Society for Risk Analysis and the Boston Risk Assessment Group held several well-attended seminars last spring, in addition to the annual poster session. In March a panel presentation on "Health Risk Analysis on MTBE in Ambient Air & Ground Water" included panelists Hari Rao (Edison, N.J.), Karen M. Vetrano (TRC Environmental Corporation), Arthur Marin (NESCAUM), and Maria Costantini (Health Effects Institute). The April meeting featured presentations by Douglas MacDonald, Executive Director of the Massachusetts Water Resources Authority, discussing his ideas for a comprehensive risk evaluation of all facets of the water and wastewater operations, and Dr. Halina Brown, Environmental Health Professor at Clark University, discussing "Response of a Regulatory System to Society Change: Lessons from Poland's Transition to a Market Economy." The May meeting featured CoraLee Cooper of NESCAUM on "Particle Emissions from Diesel Engines in the Big Dig" and Richard Wilson of Harvard University discussing "Health Risks Resulting from Ambient Air Particles." In June, Camp Dresser and McKee hosted the well-attended annual chapter poster session, which included a chapter business meeting.

This fall, two seminars are planned. On 19 October, Annie Jarabek of the U.S. Environmental Protection Agency (EPA), Research Triangle Park, will discuss "Perchlorate Mode of Action" as part of the National Speakers Program, and Josh Cohen of the Harvard Center for Risk Analysis will discuss "Pathogens and Disinfection By-Products: The Use of EPA's Comparative Risk Framework Methodology to Evaluate Drink-

ing Water Disinfection Technologies." On 10 November, Roger Kaspersen of Clark University, national SRA President-elect, will discuss his work on "Risk, Trust, and the Democratic Process," and Ragnar Löfstedt, University of Surrey, (visiting at the Harvard Center for Risk Analysis), will discuss international comparisons on trust. For the spring of 2000 the chapter is planning a joint meeting with the Licensed Site Professional Association and may organize a workshop on water risk issues. Those who would like more information or wish to join the chapter and receive our newsletter, *Back of the Envelop*, or to post news or advertisements may contact Jo Anne Shatkin (jashat@menziecura.com or 978-453-4300, ext. 12) or Marilyn Lourandos, Chapter Secretary (mlou19@idt.net).

Lone Star Chapter

Theodora Overfelt, Secretary

The Lone Star Chapter (LSC) will hold its annual state conference the afternoon of Friday, 22 October 1999, in Austin, Texas (exact time and location to be announced). Speakers include Dr. Jack Schull of the Department of Human Genetics at the University of Texas School of Public Health ("Risk Assessment: Science or Scientism?"), Robert Ettinger of the Equilon Enterprises Westhollow Research Center in Houston, Texas (Assessing Subsurface Vapor Migration Into Indoor Air), and Dr. Chris Corton of the Chemical Industries Institute of Toxicology (The Use of Gene Array Data in Risk Assessment). For more information, please contact LSC President Dr. Arthur F. Eidson (Feidson@TheITGroup.com) or LSC Secretary Theodora Overfelt (toverfelt@ermsw.com).

Southern California Chapter

Lawrence Gratt, President

The Southern California Chapter held its annual meeting in May and elected new officers: President Lawrence B. Gratt (phone: 619-531-0092, fax: 619-531-0095, e-mail: lgratt@aol.com), President-elect James Hudson, Treasurer Thomas Meyers, and Secretary Donald Greenlee.

SRA-SETAC Chapitre Saint-Laurent Chapter

Sylvain Loranger, President of the 1999 Organizing Committee and President of the Chapitre Saint-Laurent 1999-2001



**SRA-SETAC President
Sylvain Loranger**

The SRA-SETAC (Society for Risk Analysis-Society of Environmental Toxicology and Chemistry) Chapitre Saint-Laurent held its annual meeting at the Queen Elizabeth Hotel in downtown Montreal on 27-28 May 1999. This year's topic was "Environment and Health: A Link to Develop" ("L'environnement et la santé: un lien à développer"). This meeting was a great success with over 120 people from academia, government, consulting, and private industry attending.

The first day started with two key-

note speakers. Dr. Louis Bernard gave a talk on the origin and the perspective of the new Quebec Institute of Public Health, whereas Charles Menzie described briefly what the Society for Risk Analysis (SRA) is about and presented an overview of



Charles Menzie discusses SRA and ASTM.

presentations and to a poster session at the end of the afternoon.

the American Society for Testing and Materials (ASTM) Risk Based Corrective Action framework. The rest of the day was devoted to 16 platform

The second day began with 14 platform presentations in the morning. After lunch, a plenary session was scheduled on the theme "Ethics and Risk Assessment." Under the chair of Guy Bourgeault from the University of Montreal, Dr. Albert Nantel for the Quebec Toxicology Center, Dr. Gaétan Carrier from the University of Montreal, and Me Yves Corriveau gave successively and briefly their opinions on the subject. Many questions were then raised from the audience and an interesting debate followed. The afternoon ended up with the Student Awards presentation.

Finally, I would like to thank all the members of the organizing committee and the volunteers who helped us to make this meeting a success. Chapitre Saint-Laurent is also thankful to our sponsors, Hydro-Québec, QSAR inc, TOXEN, D'aragon Desbiens Halde Ltd, Golder Associates, Maxxam, Sanexen, Shell, and Visual Decision for their financial support.

For additional information about the Chapter, visit our Web site (www.ebisoft.com/saint-laurent). ◇◇



Risk Education Resources

Education Opportunities and Risk Resources in the Many Fields of Risk Analysis

Tim McDaniels, Chair, Education Committee

The path to a professional career in risk analysis usually starts with some formal education. Yet, judging from my own experience, and that of many interested folks who contact the Society for Risk Analysis (SRA), finding programs that offer training and degrees in risk analysis can be tough. Hence the need for a new column, "Risk Education Resources," sponsored by the SRA Education Committee.

The idea is to provide a "clearinghouse" and repository for information about education opportunities and resources in the many fields of risk analysis. The committee hopes the columns will be archived on the SRA Web site and thus serve as a handy on-line guide and reference to Web sites and other sources of information. While we cannot expect to cover every aspect of risk education, we can shoot for a helpful overview that will provide some personal insights and direct people to other sources.

In future columns, we'll discuss some of the major graduate programs in risk analysis and related fields. Then we'll turn to related programs at the graduate and undergraduate levels. After that, we'll turn to an array of related topics: sources of funding for graduate students interested in risk analysis and related fields, specific graduate programs in selected subfields ranging from risk communication to toxicology, and educational resources that introduce risk analysis and decision making into school curricula.

We are keen to receive suggestions from readers about the kinds of educational topics to cover. We would love to hear from guest columnists who would like to address a particular

aspect of risk education in 500 words. Write to Tim McDaniels (timmcd@interchange.ubc.ca) with your suggestions, questions, insights, stories, secret opportunities, and offers of writing help.

My own experience in seeking a Ph.D. program in the mid-1980s is probably typical, and shows why it is difficult to find such programs. I knew enough to know I was interested in risk analysis and decision making but searches in standard catalogues of graduate programs turned up little. After writing to many programs, and visiting three universities with no success,

I knew I needed some inside information. I contacted Paul Slovic and Baruch Fischhoff at Decision Research in Eugene, Oregon, and asked for advice. They directed me to Carnegie Mellon University (CMU), where I was lucky enough to work with some of the world's leaders in risk analysis.

The diffuse structure of risk analysis programs evident then still exists today, at CMU and elsewhere. The faculty and courses related to risk and decision making were spread among several different academic programs

in the university. There was no single program within which all these courses were offered, nor any central descriptions of courses one should take in this field. A glance at Web sites related to risk analysis programs at CMU shows opportunities are still diffused among various academic units, without much emphasis on risk research as a central focus. Yet CMU is one of the world's best places for graduate programs in the social and decision-related aspects of risk. More on this and other programs next time. ◇◇

... finding programs that offer training and degrees in risk analysis can be tough.



Committees

Nominations Committee

Rae Zimmerman, Chair

You should have received your ballot for new officers and councilors for the Society for Risk Analysis. Remember the deadline for returning the ballots is 29 October. The names of the new officers and councilors will be announced at the 5-8 December 1999 Annual Meeting in Atlanta, Georgia. The nominees for election are:

President-elect (one-year term):

John Ahearne, Director, Sigma Xi Center and Adjunct Professor and Lecturer, Duke University, vs.
Robert J. Budnitz, President, Future Resources Associates, Inc.

Secretary (two-year term):

Timothy L. McDaniels, Director, Eco-Risk Research Unit, Associate Professor, University of British Columbia, vs.
Susan Santos, President, Focus Group

Councilor (three positions, each with a three-year term):

Health:

Christopher J. Portier, Chief, Laboratory of Computational Biology and Risk Analysis and Associate Director, Environmental Toxicology Program, National Institute of Environmental Health Sciences, vs.

John J. Vandenburg, Office of Research and Development, U.S. Environmental Protection Agency

Social Science:

Michael R. Greenberg, Professor, Bloustein School, Rutgers University, and Director, Center for Neighborhood and Brownfields Redevelopment, vs.

Michaela Zint, Assistant Professor of Environmental Education and Communication, School of Natural Resources and Environment, University of Michigan

Engineering:

James H. Lambert, Research Assistant Professor, Center for Risk Management of Engineering Systems and Department of Systems Engineering, University of Virginia, vs.

Mitchell J. Small, Professor, Civil and Environmental Engineering and Engineering and Public Policy, Carnegie Mellon University

Members of the Nominating Committee are Chair Rae Zimmerman, Vicki Bier, Roger Kasperson, and Lauren Zeise.

Electronic Media Committee

Steve Brown, Webmaster

Webmaster Position Opening

The Society for Risk Analysis (SRA) maintains a World Wide Web Site on the Internet (www.sra.org). Since its inception, the site has been managed by an all-volunteer committee including liaison members from the SRA Council and Chaired by a volunteer Webmaster, who has performed the vast majority of day-to-day site maintenance. The Society intends to con-

vert the position of Webmaster to a paid, part-time basis starting at the beginning of 2000. The current Webmaster will provide transition training but is not a candidate for the paid position. The term of the Webmaster will be three years, with the possibility of renewal. When the Webmaster's last term ends, (s)he will be expected to provide transition training to the next incumbent.

Duties

The Webmaster will report to the SRA Publications Committee via an Officer of the Society designated as Web Editor. The Web Editor will be responsible for policy decisions, with direction from the SRA Council when necessary.

The Webmaster's duties will include, but will not necessarily be limited to:

- Managing an annual budget intended to cover the wages of the Webmaster, wages of any assistants the Webmaster might enlist, charges for outside contract assistance (e.g., programming), and charges from the Internet Service Provider.
- Maintaining the site on a daily basis, including updates of the information pages (officers, awards, chapters, etc.) as needed (at least annually); posting announcements of job openings and other opportunities; posting news stories; posting announcements of SRA meetings and other relevant events; posting electronic copies of the SRA *newsletter* and Journal Table of Contents; and updating links to other Web sites.
- Monitoring e-mail sent to the SRA Web address, answering questions as possible and referring others to the Secretariat or Council.
- Referring policy questions to the Web Editor.
- Updating the on-line abstract submission and registration forms for the SRA Annual Meeting.
- Monitoring the performance of the Internet Service Provider and selecting a new one if necessary.
- Designing, implementing, testing, and maintaining new features for the site.
- Proposing site format changes for improved aesthetics or usability.
- Recruiting volunteer assistance from the SRA membership to leverage the budget.

Qualifications

Although not expected to be an Internet professional, the successful candidate will be able to demonstrate excellent familiarity with the structure and functions of the Internet and with basic HTML programming. Some ability to work with computer graphics is also necessary. Familiarity with CGI scripts (e.g., PERL programming) and/or JAVA is a plus, but not required.

The candidate should also be familiar with basic concepts of risk analysis. Although a high degree of expertise is not essential, the ability to identify relevant information for posting on the Web site is. Breadth of risk analysis experience is more important than depth in any one area. Membership in the Society, although not a requirement, is desirable.

Finally, the candidate should possess a high degree of discipline and conscientious attention to detail. Because the position is part-time and has a limited budget, the candidate must

be an excellent time manager. Because many of the duties are time-urgent, the candidate must be attentive and flexible in providing services.

Compensation

It has not yet been determined whether the Webmaster will become a part-time employee of the Society or will provide the services under contract. Finalists for the position may be asked to prepare a proposal showing proposed activities and budgets.

Application

A letter of application should be submitted outlining the candidate's qualifications, using the above position description as a guide. The candidate should provide the URL of a Web site that (s)he has developed and maintained, solely or as the major contributor. Submitting a list of up to three references, although not required, is encouraged. Any conditions on availability or length of service should be stated. The application may be sent by mail, facsimile, or e-mail to Stephen L. Brown, SRA Webmaster, 4700 Grass Valley Road, Oakland, CA 94605; phone: 510-430-8118; fax: 510-430-8063, e-mail: <slbrown@idiom.com>.

Public Policy Committee

Jack Fowle, Chair

The Society for Risk Analysis (SRA) Public Policy Committee cosponsored a luncheon briefing with the American Chemical Society's Risk Education Project in Washington, D.C., on 8 June 1999. The topic, "Regulatory Issues: Access to Scientific Information" drew a crowd of 94 people to room B-339 in the Rayburn House Office Building, including 47 Congressional staffers, seven staffers from the Executive Branch, and two reporters.

Greater public access to the scientific data underlying federal regulations has been an issue on the Hill for the past two years. Following an earlier debate about the revisions to air-quality standards in 1997, last year Congress instructed the Office of Management and Budget (OMB) to widen the public availability of data collected through federal grants. Now several representatives are attempting to further revise the procedures. This briefing reviewed the history of the issue and presented several positions on how to balance the needs of the scientific process and the ability of citizens to see the scientific information upon which regulations are based.

Dr. Mark Frankel, Director of the American Association for the Advancement of Science's (AAAS) Scientific Freedom, Responsibility, and Law Program, opened the briefing by describing the Harvard 6 Cities study used by the Environmental Protection Agency (EPA) as a basis for its 1997 air quality standards. Some felt the regulations too costly and given data uncertainties asked to see the data. EPA refused, noting it belonged to Harvard University, and Harvard would not release the data citing concerns over matters such as having to release confidential medical data. Since the study was funded with support from the National Institutes of Environmental Health Sciences, some members of Congress questioned Harvard's right to withhold data generated with federal funds from taxpayers. A compromise was reached where the Health Effects Institute

would serve as a neutral third party to analyze the data with respect to its robustness, while maintaining confidentiality regarding material that might identify the study subjects.

In 1997 Representative Robert Aderholt offered a bill to require recipients of federal funds to release the data resulting from a supported study after they had been used for regulatory purposes. It was not enacted. In 1998, at the end of the 105th Congress, Senator Richard Shelby tacked data access provisions onto the FY 1999 appropriations bill instructing OMB to amend Circular A-110 to insure that all data from federally funded research is made public to those who request it through the Freedom of Information Act (FOIA). OMB proposed language on 4 February 1999 interpreting the provision narrowly in that only published findings from research funded by the federal government could be obtained through FOIA. Under the new law the researcher would submit his/her data to the funding agency which would then distribute it to those who request the information under FOIA. Information about trade secrets, personal and financial matters, or medical information is considered an unwarranted invasion of privacy and would not be releasable to the public. At the beginning of the 106th Congress, Congressman George E. Brown, Jr., introduced HR88 which would repeal the language. Congressmen Jim Walsh and David Price offered language to delay the implementation of the Shelby provisions until a study of the impacts can be completed.

Frankel then introduced JoAnne Torneau, an Executive Branch Fellow (sponsored by AAAS), working in the Science Division of the White House Office of Science and Technology Policy. She reported that OMB received over 9,200 public comments on their proposal for amending Circular A-110. About 55 percent of the comments supported the language allowing access to data generated with federal funds and about 45 percent were against it. The most often cited reason for why the provisions are needed was that the regulatory burden on business is so great that public review of the data is needed. The most often cited reason against it was that the ability to conduct science is irreparably harmed if it is not possible to insure privacy of study subjects. Administrative and financial burdens and fear of harassment were also cited. The OMB is deciding whether to finalize the regulations now or to ask for more comments. The next steps are to consult with Congressional staff about these options. The expectation is that Circular A-110 will be finalized in a year and that agencies will be required to implement its provisions one year later.

Charles Fromm, Executive Director of the Center for Regulatory Effectiveness, spoke next and said that opponents to the provision had raised legitimate concerns. We should all be concerned over patient confidentiality, the protection of intellectual property rights, and the cost burden on researchers. However, he said that the provisions of FOIA already protect against these concerns. FOIA does not apply to medical records and it protects privacy. It also protects against the release of trade secrets, and researchers don't have to copy their data for all interested parties. They only have to make it available one time to their funding agency who makes it available to interested parties. Given these three protections he felt that the regulation should go forward.

The third and final speaker, Mary Ellen Sheridan, Assistant Vice President for Research and Director of University Research Administration for the University of Chicago, agreed that sharing of data is essential for expanding knowledge. How-

ever, while FOIA is set up at the agency/public interface to ensure "sunshine" it is not set up to reach into student notebooks, videotapes of human subjects in family videos to study human behavior, etc. Confidentiality is not possible when a subject's face is videotaped for instance. The Shelby provision hurts the public and it hurts scientists. FOIA can be used by foreign governments, individuals, companies, etc., to tap into taxpayer-generated information for foreign or private gain. Scientists will be disrupted because they won't have to turn the data over to their funding agency just once, because the research process is continuous and the data generation is an ongoing activity.

A three-person respondents panel then reacted to the remarks of the presenters. Jean-Louise Beard, Senior Legislative Assistant for Congressman Price, felt that the Shelby provision was inappropriate because it was rushed through at the last minute. The intent is reasonable but the language is poorly crafted. Hearings and a legislative history should be developed before any provision goes forward. If held she felt that the members would come to realize that FOIA is not intended for this task.

Kathy Casey, Legislative Director for Senator Shelby, defended the provisions saying the bill was not passed in the dead of the night. It was not a new issue and had been considered for many years. Senator Shelby reached out to OMB and they helped craft the final language. It was OMB who recommended FOIA as the tool to get the job done.

Edward Warren, a partner in the Kirkland and Ellis Law Firm, gave the final reaction to the comments. He litigated the Ozone/Particulate Matter court of appeals case that resulted in EPA's air regulations being overturned. He felt that valid concerns have been raised and that the best place to work them out is in the court of appeals.

The ensuing question-and-answer session focused primarily on the issues of who is covered by the provisions (e.g., are nonprofit organizations subject to them?) and on procedural and proprietary matters (e.g., can contractors be employed to handle the copying and distribution of the requested material and will the provisions be applied retroactively?).

Publications Committee

Yacov Y. Haimes, Chair

Call for Nominations for the Editorial Board of *Risk Analysis: An International Journal*

The Society for Risk Analysis (SRA) Publications Committee, in consultation with Dr. Elizabeth Anderson, Editor-in-Chief of *Risk Analysis: An International Journal*, is considering a modest expansion of the Editorial Board to accommodate the need of additional expertise in the following disciplines: (1) Statistical and uncertainty analysis, (2) Regulatory and legal applications of risk assessment, (3) Environmental and ecological risk assessment, (4) Biotechnology and risk associated with genetically altered organisms, (5) Risk assessment and economic analysis involving food products in international trade, (6) Basic biology and regulatory toxicology (experimental practice and its use in the regulatory context, mechanistic biology, modelling orientation), (7) Epidemiology, (8) Exposure measurement and modeling (and the related physical sciences of chemistry and physics), (9) Statistics (especially survey design and interpretation and Bayesian methods), and (10) Risk communication (theory and practice).

Editorial Board members are expected to review about three papers and one book per year and lead or participate in identifying special topics for prospective articles and/or special collections of papers on topics of prominent interest. Board members are also expected to help area editors identify highly qualified reviewers in their areas of expertise and to help area editors make final decisions on papers which are highly controversial or which have received strongly mixed reviews.

Nominations with a brief résumé of the candidates should be sent to Yacov Y. Haimes, Chair, SRA Publications Committee, Quarles Professor of Engineering and Applied Science, Director, Center for Risk Management of Engineering Systems, 112A Olsson Hall, University of Virginia, Charlottesville, VA 22903, USA; office phone: 804-924-3803 or 804-924-0960; office fax: 804-924-0865; e-mail: <haimes@virginia.edu>. ◇◇◇



DILBERT reprinted by permission of United Feature Syndicate, Inc.



SRA-Europe

Risk Analysis: Facing the New Millennium

Gemma van der Windt, Rotterdam Conference Secretary

The 1999 Annual Conference of the Society for Risk Analysis-Europe will be held in Rotterdam, the Netherlands, 10-13 October 1999. With the theme "Risk Analysis: Facing the New Millennium," the conference will be opened by Rotterdam Deputy Mayor H.J. Simons, followed by keynote talks on the learning process. The closing session will feature keynote talks on facing the new millennium, followed by a theme discussion on the future risk agenda.

For further information contact <sr ae1999@wtm.tudelft.nl> or visit our Web site (<http://www.wtm.tudelft.nl/~sra-e1999/>).

United Kingdom Chapter

Claire Mays, SRA-E Secretary

The next United Kingdom Chapter meeting will be held in February 2000 in Norwich. The meeting, organized by the Institute of Food Research and the University of East Anglia will have the theme "Interdisciplinary Perspectives on Risk: Addressing Policy and Research Agendas." The meeting will be organized by Dr. Lynn Frewer (Institute of Food Research), Dr. Simon Gerrard, and Professor Nick Pidgeon (University of East Anglia School of Environmental Sciences), and Norwich Research Park. Details may be obtained from <lynn.frewer@bbsrc.ac.uk>.

Foresight and Precaution SRA-Europe and ESREL 2000 Annual Conference 14-17 May 2000, Edinburgh, Scotland

Claire Mays, SRA-E Secretary

Organized jointly by the Society for Risk Analysis-Europe (SRA-E), the European Safety & Reliability Association (ESRA), and the UK Safety and Reliability Society (SaRS), "Foresight and Precaution," the SRA-E and ESREL 2000 Annual Conference, will be held 14-17 May 2000 at Edinburgh, Scotland.

The annual ESREL and SRA-E series of conferences have resulted from European initiatives to promote the exchange and cross-fertilization of ideas and experience in risk analysis and management and in safety and reliability assurance. The conferences have grown into major international events attracting contributions and participants from the European Union, Eastern Europe, the United States, Australasia, and the Far East.

The last few years have seen an increasing recognition of the importance of social factors in influencing the role and use of risk assessment, including public perceptions of risk, communication with stakeholders, and public trust and confidence in decision-making processes for novel and contentious technologies. For the first time, in 2000, these conferences will be combined to explore these related areas and to provide a forum for consideration of developments in methods of risk assessment and management and the changing public and policy context which these methods need to address. The conference theme, "Foresight and Precaution," reflects societal concerns to foster technological innovation and development, while guarding against untenable risk or unsustainable exploitation.

Full details of the conference and how to register are given on the following Web sites: SRA-E (www.sraeurope.com), ESRA (www.esra.be), and SaRS (www.sars.u-net.com).

Conference Fees

Standard price, including conference dinner: £500

Standard early booking, including conference dinner: £400

Academic researchers, standard price, excluding conference dinner: £300

Academic researchers, early booking excluding conference dinner: £250

Student per day: £50

VAT at 17.5% to be added to all fees.

Where dinner is not included in the registration fee, tickets can be purchased at approximately £50.



Edinburgh International Conference Centre



Bagpipe band on Princes Street in Edinburgh



Advertisements

Operations Research Analyst GS-1515-12/13

United States Coast Guard
Research & Development Center
Groton, CT

Looking to hire experienced researchers with a background in Operations Research and Risk Management to work on Coast Guard R&D projects. The research area requires expertise in the broad area of decision and risk analysis technologies. The individual plans, develops, and implements research initiatives across Coast Guard programs to foster risk-based decision making in support of Coast Guard missions.

Applicants must have an undergraduate degree in Operations Research or related research discipline; a graduate degree in this field is preferred. In addition, applicants must have at least one full year of experience in researching and developing processes to incorporate risk-based decision making into an organization's programs. Government contract management experience is desirable. U.S. citizenship is required. Salary: \$48K to \$74K. For further information visit <<http://www.uscg.mil/hq/cgpc/cpm/jobs/vacancy.htm>>. Look for Announcement Number: 99-581-2SA. The U.S. Coast Guard is an Affirmative Action, Equal Opportunity Employer.

Toxicologist/Project Manager

A nonprofit scientific institute, located in Washington, D.C., convening expert groups on cutting edge scientific topics in the areas of human health and environmental safety seeks a toxicologist to manage a diverse set of projects related to the development and application of toxicology data in safety/risk assessment. Project management, scientific consulting, and/or regulatory affairs background desirable. In-depth knowledge of biological sciences, basic toxicology, risk assessment, and regulatory issues required.

This responsible and midlevel position also requires the ability to work as part of a team as well as experience in committee management including research project development and coordination, literature reviews, technical writing, conference and meeting organization, budget preparation and monitoring, and development of correspondence and reports. Master's degree in scientific field such as toxicology, pathology, environmental health, or related life sciences required. Salary commensurate with experience; outstanding benefits. Send résumé and salary history to Human Resources, ILSI, 1126 16th St., N.W., Washington, DC 20036, or fax to 202-659-3859. EOE M/F.

Research Scientist at the Center for Risk Management

The Center for Risk Management of Engineering at the University of Virginia invites applications for a Research Scientist. Applicants must have a Ph.D. degree in Systems Engineering with experience in systems engineering. The position requires the candidate to acquire expert knowledge in some of the following areas of specialization in order to conduct research at the Center: risk and uncertainty analysis, multiobjective optimization and decision making, reliability modeling, and risk ranking. The individual will develop research proposals and manage sponsored research in the broad area of risk management of engineering systems. Annual salary is commensurate with experience. Qualified applicants should send a letter of application, résumé, list of publications, and list of references to Yacov Haimes, Director, Center for Risk Management of Engineering Systems, University of Virginia, 112 Olsson Hall, Charlottesville, VA 22903. The University of Virginia is an Equal Opportunity/Affirmative Action Employer. ◇◇◇

RISK newsletter and SRA Web Site Advertising Policy

Employment openings, books, software, courses, and events may be advertised in the 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. Camera-ready ads 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.

Members of SRA may place, at no charge, an advertisement seeking employment for themselves as a benefit of SRA membership.

The RISK newsletter is published four times a year. Submit advertisements, with billing instructions, by 15 January for the First Quarter issue (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, 525 N. 6th St., Mankato, MN 56001; phone: 507-625-6142; fax: 507-625-1792; e-mail: <mwalchuk@mctcnet.net>.

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.

For additional information see the Web site at <www.sra.org/policy.htm#events>. Ads placed on the Web site will usually appear several days after receipt.



RISK newsletter is published by the Society for Risk Analysis

Genevieve S. Roessler, *Editor*, gnrsslr@frontiernet.net
 Mary A. Walchuk, *Managing Editor*, mwalchuk@mctcnet.net
 Sharon R. Hebl, *Editorial Associate*

Society Officers:

Gail Charnley, *President*, 1998-99, healthrisk@aol.com
 Roger E. Kasperson, *President-elect*, 1998-99, rkasperson@clarku.edu
 Tim McDaniels, *Secretary*, 1998-2000, timmcd@unix.ubc.ca
 Richard B. Belzer, *Treasurer*, 1998-2002, csabindc@iname.com
 Yacov Y. Haimes, *Past President*, 1998-99, haimes@virginia.edu

Members of SRA Council:

Robin Cantor, 1999, robin_cantor@lecg.com
 Alison C. Cullen, 2000, alison@u.washington.edu
 William Farland, 1999, farland.william@epa.gov
 H. Christopher Frey, 1999, frey@eos.ncsu.edu
 Dale B. Hattis, 2000, DHattis@Clarku.edu
 F. Owen Hoffman, 2001, senesor@usit.net
 Paul Locke, 2001, locke@eli.org
 Dennis J. Paustenbach, 2000, dpaustenbach@exponent.com
 Lauren Zeise, 2001, lzeise@berkeley.cahwnet.gov

Secretariat: Richard J. Burk Jr., Executive Secretary, Society for Risk Analysis, 1313 Dolley Madison Blvd., Suite 402, McLean, VA 22101; phone: 703-790-1745; fax: 703-790-2672; e-mail: sra@BurkInc.com

Publications Chair: Yacov Y. Haimes, University of Virginia, Center for Risk Management of Engineering Systems, Olsson Hall, Charlottesville, VA 22903; phone: 804-924-3803; fax: 804-924-0865; e-mail: haimes@virginia.edu

Newsletter Contributions: Send to Mary Walchuk, Managing Editor, RISK newsletter, 525 N. 6th St., Mankato, MN 56001; phone: 507-625-6142; fax: 507-625-1792; e-mail: mwalchuk@mctcnet.net

RISK newsletter Publication Schedule Change

In order to cover the Society for Risk Analysis annual meetings more completely and in a more timely manner, the RISK newsletter will be published on a different schedule starting with the First Quarter 2000 issue. There will be no Fourth Quarter 1999 issue. The First Quarter issue will now be mailed to members mid-February (instead of 1 April as in the past).

Our new deadline and publication schedule is as follows:

Issue	Deadline*	Mailed
First Quarter	5 January	15 February
Second Quarter	5 April	15 May
Third Quarter	5 July	15 August
Fourth Quarter	5 October	15 November

*Date information must reach the newsletter office in order to be included in that issue.

Deadline for RISK newsletter submissions

Information to be included in the **First Quarter 2000** SRA RISK newsletter, to be mailed mid-February, should be sent to Mary Walchuk, Managing Editor, RISK newsletter (525 N. 6th St., Mankato, MN 56001; phone: 507-625-6142; fax: 507-625-1792; e-mail: mwalchuk@mctcnet.net) no later than **5 January**.

SOCIETY FOR RISK ANALYSIS
1313 Dolley Madison Blvd., Suite 402
McLean, VA 22101