

# RISK newsletter

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## Two Society Members Appointed to National Risk Commission

Six of the long-awaited appointments to the 10-member Risk Assessment and Management Commission have been announced by President Bush, congressional leaders, and the National Academy of Sciences.

The commission, whose work is expected to have a major impact on the government's use of risk analysis in setting federal regulations, plans to meet this autumn after the remaining four seats are filled.

The commission will recommend ways to update methods used to measure risks of cancer and other chronic illnesses and will suggest how the government should refocus its priorities.

"I would like to see risk analysis achieve the same degree of credibility

and accuracy that our government's economic statistics have," said commission member Bernard Goldstein, M.D., who is a Society for Risk Analysis member and director of the Environmental and Occupational Health Sciences Institute in Piscataway, NJ.

"When the government announces that the unemployment rate has increased from 6.6 to 7.6 percent, we all agree that unemployment has gone up. Our job is to get risk science to that same point," he said.

The second SRA member on the commission, Anthony Thompson, also supports an overhaul of risk analysis used in the federal regulatory process.

"We need consistent approaches and better techniques so that our

country's decision makers can have the best available information to make decisions," said Thompson, an environmental and health safety attorney with Perkins Coie in Washington, D.C.

"Many of our federal agencies rely on risk assessments to set standards and priorities, but they are wedded to assumptions developed in the early years that are simplistic and crude," he said. "We need to use the new techniques we've developed."

The commission's guidelines for risk assessment priorities could affect funding for research, Thompson said.

"We don't need to waste time or money on things that are less of a problem for public health than others. The

*(Continued on page 2.)*

## Workshop to Help Hone EPA's Risk Guidelines

An all-day workshop on the Environmental Protection Agency's guidelines for cancer risk assessment is set for December 4 at the site of the SRA annual meeting.

The Society for Risk Analysis is conducting the workshop under a cooperative agreement with the EPA because its membership includes leaders in the carcinogen risk assessment field. As the workshop's goal is to give the EPA feedback on guideline revisions under consideration, organizers will write a report summarizing the workshop's outcome on December 5.

The forum will focus on how best to update the cancer risk assessment guidelines currently used by both the EPA and the State of California. Key issues include hazard identification, dose response assessment, exposure assessment, and risk characterization.

Workshop co-sponsors are the Society and the EPA, which are both providing funding, and the State of California. Organizing Committee members are Elizabeth Anderson of Clement International Corp.; Donald Barnes of the EPA; Paul Deisler Jr., retired from Shell Oil Co.; Catherine St.

Hilaire of Hershey Foods Corp.; David McCallum of Columbia University's Center for Risk Communication; SRA President-Elect and workshop Chair James Wilson of Monsanto Co.; and Rae Zimmerman of New York University's Robert F. Wagner Graduate School of Public Service.

The workshop's Advisory Committee includes Organizing Committee members and Carol Henry of International Life Sciences Institute, Martin J. Reape of MFC Corp., Harlee Strauss of H. Strauss Associates Inc., Lauren Zeise of the California Department of Environmental Protection, Richard Clapp of the JSI Center for Environmental Health, and Richard Griesemer of the National Institute of Environmental Health Sciences.

The fee is \$75 for the workshop, which is being held at the Hotel del Coronado in San Diego. Pre-registration is urged, as advance reading material is being mailed to participants and attendance is limited by room size.

To register, contact Sue Burk, Office of the Secretariat, Society for Risk Analysis, Suite 130, 8000 Westpark Drive, McLean, VA 22102. Phone: (703) 790-1745.

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commission's work may find that some of the programs we're investing a lot of money in don't warrant it," he said.

Created by 1990 amendments to the Clean Air Act, the commission is to prepare a report on the federal government's use of risk assessment and risk management in regulatory programs. The report, which will be given to the President of the United States and Congress, will be a broad-based review of risk analysis used to evaluate all types of hazardous substances, not just air pollutants. As part of its report, the commission may propose legislative and administrative changes. The law also requires that the report, which is due in May 1995, be made available to the public for comment.

As part of its investigations, the commission will review a risk assessment study on health risks from air pollutants that the National Academy of Sciences is preparing. Funded through the Environmental Protection Agency's budget, the commission plans to have an office and staff in Washington, D.C.

While Congress mandated that the commission begin work in May 1992, only six of the commission's 10 members have been appointed to date: three by President Bush, one by National Academy of Sciences President Frank Press, one by Minority Leader of the House of Representatives Robert Michel, R-IL, and one by Minority Leader of the Senate Robert Dole, R-KS. Still to come are two appointments by Speaker of the House of Representatives Thomas Foley, D-WA, and two by Majority Leader of the Senate George Mitchell, D-ME.

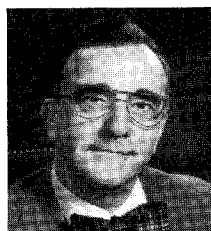
The six people appointed to the commission to date are as follows:

**Thorne G. Auchter**, director and chief executive officer of the Institute for Regulatory Policy in Washington, D.C. A presidential appointee to the commission, Auchter founded the Institute, which researches and issues policy guidance on the regulation of risks to human health. President Reagan appointed Auchter to serve as assistant secretary of the U.S. Department of Labor, in charge of the Occupational Safety and Health Administration, from

1981-84. From 1968-81, Auchter was executive vice president of Auchter Co., a family-run construction business.

**Barbara A. Bankoff**, president of Bankoff Associates in Washington, D.C. A presidential appointee to the commission, Bankoff provides analytical and policy consulting services to corporate and governmental clients, with particular emphasis on the Clean Air Act and risk issues. She has served as a consultant to congressional leaders, including U.S. Senator Robert Dole. Bankoff also held several positions at the Environmental Protection Agency (EPA) during her 10 years of work there. Most recently she was congressional director of the Office of Air and Radiation.

**John Doull**, professor of toxicology and pharmacology, Department of Pharmacology, Toxicology and Experimental Therapeutics at the University of Kansas Medical School in Kansas City. Appointed to the commission by U.S. Senator Robert Dole, Doull previously was assistant director of the University of Chicago Toxicity Laboratory. Doull is chairperson of the National Academy of Sciences/National Research Council and has served on the National Institutes of Health's Toxicology Study Section. He received training as a medical doctor and in chemistry and pharmacology.



Doull

**Bernard D. Goldstein**, director of the Environmental and Occupational Health Sciences Institute in Piscataway, NJ. Appointed by the National Academy of Sciences President Frank Press, Goldstein is an SRA member and chairs the National Research Council's Committee on Risk Assessment Methodology. He also chairs the Depart-



Goldstein

ment of Environmental and Community Medicine at the Robert Wood Johnson Medical School at the University of Medicine and Dentistry of New Jersey and is director of a Center of Excellence of the National Institute of Environmental Health Science. Goldstein, who received training as a medical doctor and in psychology and hematology, has worked for the EPA and served on committees of the National Institute of Health and the World Health Organization.

**Anthony J. Thompson**, an environmental and health safety attorney with the law firm Perkins Coie in Washington, D.C. A presidential appointee to the commission, Thompson is an SRA member and co-chairs Perkins Coie's Environmental and Natural Resources Practice Group. Thompson specializes in health safety and environmental cases, including risk assessment issues. His risk assessment experience includes matters involving the EPA, the Occupational Safety and Health Administration, and the Mine Safety and Health Administration.



Thompson

**Virginia V. Weldon**, vice president of public policy for the Monsanto Co. Named to the commission by U.S. Representative Robert Michel, Weldon serves on the board of directors of The NutraSweet Co., G.D. Searle & Co. and Monsanto. She received training as a medical doctor and is a former professor of pediatrics at the Washington University School of Medicine and Medical Center. Weldon is a member of the National Academy of Sciences' Institute of Medicine and is a former chairman of the Assembly of the Association of American Medical Colleges. She also has served on a research council for the National Institutes of Health.



Weldon

## 350 Abstracts Submitted for Annual Meeting

A total of 66 platform sessions and two 50-paper poster sessions are scheduled to accommodate the more than 350 papers submitted for presentation at SRA's 1992 Annual Meeting, to be held December 6-9 at the historic Hotel del Coronado in San Diego, CA.

Program Chairman Doug Orvis (Accident Prevention Group, San Diego) says notices of paper acceptance are currently being mailed, with all presenters urged to bring copies of full papers to the meeting for distribution to interested attendees. A preliminary program will be sent to all SRA members in September. The final program, available at the meeting, will include abstracts of the scheduled papers.

The platform sessions will follow six tracks representing the Society's specialty groups and other interests. In general, most sessions will last one and a half hours and include four papers.

The two poster sessions will be held successively in the hotel's Grand Hall during the three-day meeting. Authors whose papers will be included in the poster sessions will receive instructions on the preferred format.

Included within the specialty group tracks will be platform sessions on ecological risks, global risks, exposure assessments, public health risks, risk communication, regulatory policy, decision making, facility siting, dose response methodology, risks and rights, space applications, and engineering applications.

### Exposure Assessment Sessions

SRA's Exposure Assessment Specialty Group is co-sponsoring 12 platform sessions and one poster session at the annual meeting. The sessions are a joint effort between SRA and the Inter-

national Society for Exposure Analysis. Organizers are Paul Price and Tom McKone, who are SRA members and ISEA liaisons.

Topics include:

- The role of new exposure assessment guidelines in the Environmental Protection Agency's programs.
- Monte Carlo modeling.
- Multimedia exposure.
- The results of a major study of air exposures at the Alaska Pipeline's Valdez terminal.
- Pesticide exposure, soil contamination, food-borne exposures, occupational exposure, and modeling. Also, the poster session will include a series on Superfund issues.

### Global Risk Sessions

The Global Risk Analysis Specialty Group Program (GRASP) of the annual meeting will consist of three or four sessions on global risk plus an additional session co-sponsored with the Ecological Risk Specialty Group.

GRASP Chairman Justin Lancaster says the sessions will highlight two areas: methodologies for integrated environmental impact assessment at the regional and global scale; and methodologies for preventing and managing large-scale social crises. The sessions will cover both health and economic risks from climate change and disasters such as war, disease, and starvation.

### Plenary Session

The speaker at the Monday morning plenary session will be the recipient of SRA's 1992 Distinguished Contribution Award, to be announced in the next newsletter. The plenary session will also include a report on the EPA workshop on car-

### Riskware '92

SRA will sponsor a Riskware exhibit at its 1992 Annual Meeting. The cost to participants will be \$400 per booth, which will include a sign, electricity access, a table, and chairs. Organizations wishing to exhibit risk-related software or data bases should contact Sue Burk, SRA Secretariat, Phone (703) 790-1745 or Fax (703) 790-9063.

cinogen risk assessments held on December 4 (see page 1) and a report on the conference jointly sponsored by EPA and Resources for the Future on setting national environmental priorities (see page 9).

### Business Meeting

In a break with tradition, the Society's annual business meeting will be held during lunch on Tuesday rather than on Monday evening.

### Sunday Workshops

As in the past, the weekday technical sessions will be preceded by up to four workshops held on Sunday, December 6. To date, the following two workshops have been scheduled.

- Workshop on Residential Exposure. This introductory workshop on how to estimate residential exposure to health risks is aimed at both beginning and experienced assessors. The workshop is part of an effort by the Society's Exposure Assessment Specialty Group to produce a reference book on consumer and indoor exposure called *Reference House*.

Organizers are Jeffrey Driver and Gary Whitmyre of Technology Sciences Group and Bert Hakkinen of Procter & Gamble Co. with assistance from Paul Price of ChemRisk.

- Workshop on Process Safety Management. An all-day workshop on process safety management is planned to assist those who must respond to the final rule on process safety management of hazardous chemicals issued by the U.S. Department of Labor Occupational Safety and Health Administration on February 24, 1992. Workshop coordinator is Krishna Nand.

### Book Exhibit

A book exhibit will be featured at SRA's 1992 Annual Meeting in the hotel's Grand Hall. The cost to participants will be \$35 per title. Those wishing to exhibit should contact Sue Burk, SRA Secretariat, Phone (703) 790-1745 or Fax (703) 790-9063.

# Society Updates from Around the Globe

## SRA-Europe Plans 1993 Meeting

The SRA-Europe Executive Committee has decided that 1992 is the year to consolidate and to strengthen the section's constitution, according to president **Tony Cox**. High on the list of priorities is upgrading the annual conference to broaden its impact on the real world of risk-based decision-making and to improve its scientific standing. For these reasons, this year's conference has been postponed until June 1993 to allow more time for preparation. The Call for Papers for the conference is published on page 8 of this newsletter, and SRA members are strongly encouraged to submit abstracts. The conference will be held in Rome, Italy, with **Paolo Vestrucci**, a member of the SRA-Europe Executive Committee, chairing the Organizing Committee.

Following discussions at the last SRA Council meeting, members agreed in principle that SRA-Europe should have the same rights to recruit local membership that SRA-Japan and the U.S. chapters have. Until now, all members of SRA-Europe had to join the Society for Risk Analysis in the United States. With this change, the section can attract members interested only in joining SRA-Europe and increase its financial support.

Other goals outlined by President **Tony Cox** include installing a European secretariat and creating a publication medium that will encourage contact between members in Europe. He is especially interested in encouraging members in Eastern Europe to participate.

SRA-Europe introduced its 1991-92 Executive Committee last December in Paris at the Section's Third Annual Conference. The members are:

### Tony Cox

R.A. (Tony) Cox is the 1992 president of SRA-Europe. He has served on  
(Continued on page 5.)

## SRA-Japan Sets November Conference

SRA President **Warner North** will be the special guest speaker on the first day of the Fifth Annual Conference of SRA-Japan in the Memorial Hall of Kyoto University, Kyoto, on November 27-28. Following his address, titled "Perspective on Risk Analysis from Across the Pacific," four speakers having backgrounds in disaster prevention, pollution control, and security of life lines will participate in a symposium and panel discussion on "Risk Issues in Urban Problems." **Tomitarou Sueishi**, the section's first president, will be the convener of the panel.

The second day of the conference will feature three sessions on life style and risk avoidance, risk perception and communication, and risk problems from scientific epistemology.

### New Officers Announced

**Tomio Kinoshita**, a professor of psychology and Dean of the College of Liberal Arts and Sciences at Kyoto University, was introduced as the section's new president at the annual spring meeting in June. A 1954 graduate of Kyoto University with a major in social psychology, he will hold office for two years (1992-94) after having served as vice president the previous two years. He has been an SRA member since 1988.

Kinoshita is also president of the Japanese Society of Social Psychology, an office he has held since 1986. Among his current interests in risk research are the effects of risk communication, the process of the public's acceptance of advanced technologies, and the interaction between cognition and emotion on risk perception.

Other new officers of SRA-Japan are Vice-President **Saburo Ikeda** of the Institute of Socio-Economic Planning at the University of Tsukuba, who is also an SRA councilor; and Treasurer **T. Sugiman** of Kyoto University. New councilors are **I. Uchiyama**, Institute of Public Health; **J. Sekizawa**, National Institute of Hygienic Science; **A. Takao**, Kobe University; **T. Taniguchi**, Research Institute of Energy Engineering; **T. Miura**, National Institute for Environmental Studies; and **S. Morisawa**, Kyoto University.

Continuing to serve on the council are **Y. Asami**, University of Fukuoka School of Law; **H. Amano**, Central Research Institute of the Electrical  
(Continued on page 5.)

## SRA Chapter Forming in Croatia

In spite of the difficulties caused by war between former Yugoslavian states, an organizational meeting for an SRA chapter in Croatia was held on July 9. In preparation for applying for chapter status, the group signed up 50 members, adopted bylaws, established a plan of activities to begin in the fall, and elected the following officers: president, **Branimir Molak**, Ministry of Defense; president-elect, **Ivan Jelic**, Ministry of Interior; secretary/treasurer,

**Zvonimir Erceg**, Open University. The chapter also elected four councilors: **Slavko Kulic**, University of Zagreb; **Josip Cicek**, Ministry for Environmental Protection; **Vladimir Lay**, Institute for Social Research; and **Fran Marovic**, Ministry of Labor.

For more information about the chapter, contact Dr. **Branimir Molak**, Daniciceva 33, 41000 Zagreb, Croatia (Phone (38) 41-692-977; Fax (38) 41-425-143).

**SRA-Europe (Continued)**

the SRA-Europe Executive Committee since 1988 and was elected an SRA councilor in 1990. Cox is chairman and chief executive officer of Four Elements Ltd., an industrial safety, risk analysis, and human factors consultancy based in London. Currently, he leads a team carrying out quantitative risk analysis of passenger safety in the Anglo-French Channel Tunnel project.

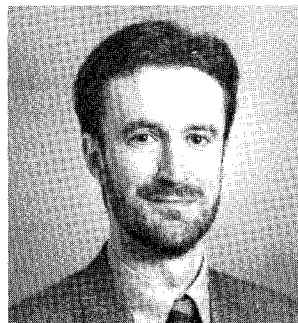
**Cox**

Cox received his BS degree in mechanical sciences from the University of Cambridge and his doctorate in air pollution science at Imperial College, University of London. He is a British Chartered Engineer, a member of the U.K. Institute of Energy, and a fellow of the U.K. Safety and Reliability Society. During his 17 years in the field of safety and risk assessment, Cox has led several projects, including the Dutch Rijnmond Safety Project for the Rotterdam industrial area and the Total Risk Analysis for Norway's Gullfaks A oil platform. He presented scientific testimony at several major public hearings in the United Kingdom, such as the accident investigation of the Piper Alpha offshore oil disaster. Before establishing Four Elements, Cox was a founding director of Technica Ltd. (now DNV Technica) and served as its chief executive officer for three years. At Technica, he was instrumental in developing the company's software products business, which included risk analysis tools for the chemical industry.

**Marc Poumadère**

Marc Poumadère serves on the Executive Committee as the 1992 president-elect of SRA-Europe. A charter member of SRA-Europe, Poumadère served as chairman of the Organizing Committee for its 1990 conference held in Austria.

Poumadère is program director for l'Institut SYMLOG in France. He acts as a consultant for private and governmental groups, develops programs aimed at decentralizing risk analysis in operating systems such as nuclear power plants, and addresses issues of risk perception and communication to the public. His current projects include collaboration on a comparative study of perceptions of nuclear energy in the United States and France.

**Poumadère**

Poumadère received his PhD in organizational behavior from the University of Paris in 1978 and spent two post-doctoral years at the Laboratory of Social Relations in the Psychology Department of Harvard University. He is a former advisor to the World Health Organization in Geneva.

**Pieter Jan Stallen**

Pieter Jan Stallen, the first elected president of SRA-Europe, serves on the Executive Committee as past president. In 1991 he established STALLEN Environmental Consult in the Netherlands, which assists industrial firms in forming policies that do justice to both the environment and the companies.

**Stallen**

Stallen earned a master of science degree in biochemistry and a doctoral degree in psychology at the University of Nijmegen. His risk assessment experience includes co-directing, along with former SRA Councilor

Roger Kaspersen, the International Research Group on Risk Communication and co-editing the book *Communicating Risks to the Public: International Perspectives* (Reidel). Stallen was a research associate at the Netherlands Organization for Applied Research from 1978-86 and senior consultant at the Institute for Environment and Systems Analysis in Amsterdam from 1986-91. He also represented the Netherlands on the Joint Research Project on Risk Assessment at the International Atomic Energy Agency in Vienna in 1977.

While Stallen was serving on the SRA Council, members asked him to organize SRA-Europe in 1988. His efforts were rewarded in 1990 when the section adopted a charter and elected him president.

(Continued on page 7.)

**SRA-Japan**

(Continued from page 4.)

Power Industry; **M. Ikeda**, Kyoto University Medical School; **K. Ishizaki**, Technology Center for Land Development; **K. Kato**, The Yasuda Fire and Marine Insurance Co.; **T. Kusama**, University of Tokyo Medical School; **K. Kuroda**, University of Kumamoto; **S. Kobayashi**, National Institute of Radiological Science; **Y. Sakai**, University of Tsukuba; **T. Sueishi**, Kyoto Seika University, first president of SRA-Japan; **O. Suzuki**, The Tokyo Marine and Fire Insurance Co.; **M. Tanaka**, Institute of Public Health; **M. Nakamura**, Lake Biwa Research Institute; **Y. Hayashi**, National Institute of Hygienic Science; **H. Hirose**, Tokyo Woman's Christian University; **T. Morioka**, Osaka University; and **E. Yokoyama**, Institute of Public Health, past president of SRA-Japan.

## President North Visits Moscow, Kharkov, and Kiev

*(Editor's Note: This past June SRA President Warner North spent six days in Moscow, Kharkov, and Kiev, meeting senior officials in a number of scientific institutions and many individual scientists who have an interest in SRA and its activities. He reports on his trip in the following article.)*

In addition to superb hospitality, I found a great deal of enthusiasm for risk analysis during my recent visit to the cities of Moscow, Kharkov, and Kiev. Clearly many Russian and Ukrainian scientists are active in the field of risk analysis and eager to participate in professional interchange with members of SRA. I was impressed by the quality and breadth of their analyses, as well as the computer software they have implemented. These scientists will play a key role in dealing with many formidable environmental problems, of which the contamination from the Chernobyl accident is perhaps the best known.

The end of the Cold War provides an unprecedented opportunity for cooperation and collaboration on a wide range of environmental risk problems, and SRA can play a significant role in bringing this about. I hope that, through the formation of local SRA chapters, international meetings, and exchange visits, the people I met and their colleagues will participate in SRA and its activities and extend these activities into their countries.

In the current economic situation, it is difficult for scientists in the former USSR to afford memberships in international scientific societies that include journal subscriptions in the cost of membership. SRA, SRA-Europe, and individual SRA members should find ways to provide affordable access to copies of our journal and newsletter.

**Moscow.** On the morning of June 5, I met with Leonid Bolshov, director of the Nuclear Safety Institute; Aleksandr N. Protsenko, department head for risk analysis at this institute; and a number of other leading scientists there. Bolshov arranged for me to meet subsequently with Yuri Vishnevsky, the chairman of the State Committee for the Supervision of Nuclear and Radiation Safety. Both Bolshov and Vishnevsky were highly supportive of professional exchanges with the United States.

In the afternoon I met with scientists Oleg I. Larichev, Sergey A. Pegov, Gleb Sergeev, and

others at the Institute of Systems Studies (VNIISI). Also meeting with us were Protsenko, Igor Kuzmin, and others from the Institute of Nuclear Safety and the Kurchatov Institute of Atomic Energy, as well as Boris I. Kochurov and several of his colleagues from the Institute of Geography. About 25 people attended in all.

**Kharkov.** I was hosted in excellent style by Vladimir Rozhkov, Vladimir Piotrovsky, and other representatives of the Kharkov City Council Environmental Commission. [Editor's note: North previously had met Rozhkov and Piotrovsky in Washington, D.C., while they were guests of the Cincinnati-Kharkov Sister City Project's Environmental Committee, which is chaired by SRA Secretary Vlasta Molak.] I met with many city officials and visited the Northeastern Scientific Center for the Ukrainian Academy of Sciences (also known as the Kharkov Institute of Physics and Technology), meeting with its director, Victor Zelensky. The next day my hosts arranged a meeting attended by at least 100 people interested in risk analysis, which received local TV and newspaper coverage. I gave a talk on risk analysis applications in the United States, which was followed by reports from various local scientists on their own risk analysis research and by a discussion on the formation of a local SRA chapter. Scientists in Kharkov are planning an international conference on environmental risk analysis for May 24-27, 1993 [see RISK newsletter, Second Quarter 1992].

**Kiev.** My hosts in Kiev were Naoum Borodianskii, who attended the 1991 SRA Annual Meeting in Baltimore, and Victor Korenha, a Ukrainian scientist whom I met during his recent visit in California. During my time in Kiev, I had a tour of the Gluchkov Institute of Cybernetics and met its director, Vladimir S. Mikhalevich. I also met with the vice-president of the Ukrainian Academy of Sciences, Valeri P. Kukhar, and the first deputy minister for Environmental Protection of the Ukraine, Viktor Rubachov. Scientists in Kiev are in the process of organizing an SRA chapter and planning a conference for late fall. [For further information, contact Borodianskii or Pieter Jan Stallen, past president of SRA-Europe.]

—Warner North

**SRA-Europe (Continued)****Torstein Erik Kvaal**

Torstein Erik Kvaal is serving a three-year term on the Executive Committee. He is general manager of Dovre Beredskap, a consultant company in Oslo, Norway, which focuses on safety, emergency preparedness and quality assurance. Kvaal earned a degree in mechanical engineering from Eidgenössische Technische Hochschule in Switzerland and a degree in reactor engineering from the Netherlands-Norwegian Reactor School, and he studied safety at the AERE Harwell Research Establishment in the United Kingdom. His experience includes working with the Norwegian Petroleum Consultants on industrial, maritime and offshore safety; reliability; and environmental issues; and with Det Norske Veritas/Veritec on safety management and on engineering and analysis.

**Detlef Müller**

Detlef Müller is serving three years on the Executive Committee. He is currently with Procter & Gamble's Schwalbach Technical Center in Sulzbach, Germany, working in the areas of consumer safety, regulatory compliance, and nutritional aspects of food, beverage, and paper products in Europe, the Middle East, and Africa. His focus is on risk identification, assessments, and communication—both internally and externally.

Müller studied biology and hydrobiology at the University of Hamburg in Germany, focusing his PhD research on environmental toxicology with emphasis on the effect of pollutants on fauna of intertidal flats. He joined Procter & Gamble in 1975, taking assignments in Belgium and the United States, where he was responsible for the toxicology and consumer safety of various product categories, from household products to foods.

**Müller****Martin Brüstlein**

Martin Brüstlein is serving a two-year term on the Executive Committee. He is vice president and head of corporate staff of Ecology and Risk Management at Alusuisse-Lonza Services AG in Basel, Switzerland. His current activities involve corporate risk management, which includes safety, insurance management, regulatory affairs, health, and ecology.

**Brüstlein**

Brüstlein studied and did research in chemistry and biochemistry at the Universities of Basel in Switzerland, Konstanz in Germany, and Santa Barbara, California, in the United States. He also has experience in chemical engineering and material and energy flow analyses. In 1984 he joined Hoffmann-La Roche as head of the Department of Environmental Affairs, overseeing regulatory affairs, laboratories, and waste management.

Brüstlein has published works on biochemistry and risk management. He is an Insead alumnus and a member of the Swiss Federal Commission for Air Hygiene.

**Paolo Vestrucci**

Paolo Vestrucci is serving on the Executive Committee for one year. He is a researcher at the University of Bologna's School of Engineering in Italy, where he also received his PhD in nuclear engineering in 1976. He is co-founder of Nier, an engineering company focusing on safety, reliability, and environmental analysis.

Using mathematical modeling and simulation, Vestrucci is involved in professional and research activities ranging from transport and diffusion processes to system analysis, with particular emphasis on probabilistic safety assessments that include human reliability analysis in accident conditions. He has written four books and more than 50 papers on these subjects.

**Vestrucci****Vitaly Eremenko**

Vitaly Eremenko is serving one year on the Executive Committee. He is currently working at the Kiev Institute of Nuclear Research, the Moscow Science and Engineering Centre for Industrial and Nuclear Safety, and the Department of Area Risk Management of the Moscow International Centre of Educational Systems. He is also the Russian coordinator of an Inter-Agency risk project and manager of the Russian part of the European risk project called SOCRATES.

**Eremenko**

Eremenko began his career in 1955 as a shift reactor operator at a Soviet nuclear power station and a nuclear submarine. Since 1962 he has published more than 100 scientific works, including 14 monographs and textbooks, and sponsored 11 students to receive degrees.

# CALL FOR PAPERS

for the

## SRA-Europe

### Fourth Conference

June 21-23, 1993

Rome, Italy

#### European Technology & Experience in Safety Analysis and Risk Management Ten Years After the Seveso Directive

##### Plenary Session: Emerging Trends in European Safety Analysis and Risk Management

Integration of process and environment risk analysis. Integration of product safety into a full life-cycle impact study. Integration of regulations into overall safety policies of industries. Integration of the total quality concept in safety management.

##### Session 1: Risk Analysis: Aiding Decision Making in Industry

Risk analysis used in plant design. Risk analysis application to operational performance improvement. Tools for safety management. Safety, environmental, and organizational audits. How to assure the quality of safety management policies.

##### Session 2: Risk Analysis: Aiding Decision Making in Governments

Control and command vs. self-regulation policies. Monitoring safety quality. Standards: at which level; a mean for assuring a fair competitiveness among different countries? Comparing and assessing the acceptability of different risks.

##### Session 3: Risk Communication: Principles and Experiences

Risk communication vs. cultural characteristics. Risk communication as an interactive process among industry, people, local authorities, and associations. Integration of negotiation techniques in the communication process. Common rules in risk communication in industries, environment, and health policies. Risk communication in environmental impact assessment and in public inquiries. Risk communication in emergencies.

##### Session 4: Quality Management, Safety Management, and Insurance

Industrial safety management policies. Safety/quality indicators. Insurance policies vs. industrial and governmental policies. Insurance, uncertainties, and evaluation tools.

#### Abstracts, Papers, and Proceedings

Abstracts (300 words) should be submitted to the conference secretariat as soon as possible but no later than November 30, 1992. Full papers will be published in the proceedings, which will be distributed at the conference.

#### Secretariat

Paolo Vestrucci  
Nier  
Via S. Stefano 16  
40136 Bologna, Italy  
Tel. 39.51.239728  
Fax. 39.51.227824

R.A. (Tony) Cox  
Four Elements Ltd.  
Greencoat House, Francis Street  
London SW1H 1DP, England  
Tel. 44.71.9738041  
Fax. 44.71.9738042



## Conference to Evaluate EPA Priority Setting

A conference aimed at helping the Environmental Protection Agency set our national priorities for reducing health and environmental risks is planned on November 15-17 in Annapolis, Maryland.

The Center for Risk Management at Resources for the Future, a non-profit organization in Washington, D.C., is organizing what it says will be a novel conference that follows up on the 1990 report by the EPA's Science Advisory Board, "Reducing Risk: Setting Priorities and Strategies for Environmental Protection."

Speakers will present several fundamentally different paradigms for setting environmental priorities, which will be analyzed alongside EPA's risk-based proposal. The major goal of the conference is to evaluate whether the EPA's approach to priority setting should be kept as is, modified, or replaced entirely by an alternative paradigm.

"The purpose of the conference is to provide a forum for advocates of various methods to make their best arguments," the center says. "The controversial questions that have not yet been given a fair hearing concern what priority-setting process will prevail and who will control it."

More than 90 professionals from universities, environmental groups, corporations, and local, state and federal governments are invited, in addition to the center's staff. Although no more invitations are currently being extended, the center is maintaining a waiting list in the event of any cancellations.

Following the conference, the center will publish an extensive report on the proceedings.

For information on the two-day conference, which will be held at the Historic Inns of Annapolis, Maryland, contact Adam Finkel, Center for Risk Management, Resources for the Future, 1616 P Street N.W., Washington, D.C., 20036 (Phone (202) 328-5110).

## Risk-Related Happenings

### Second Workshop on TOXNET and Data Bases Scheduled

Another free workshop on the TOXNET system and its data bases, including IRIS (Environmental Protection Agency's Integrated Risk Information System), will be held at the National Library of Medicine (NLM) on Friday, September 11, from 10 a.m. to 3 p.m. The workshop is intended for searchers new to TOXNET who need a basic grasp of the content of its files, how they are structured, and how they are searched. An emphasis will be placed upon IRIS, but the Hazardous Substances Data Bank and TOXLINE will also be reviewed, as well as EPA's Toxic Chemical Release Inventory. Enrollment in the IRIS/TOXNET Workshop is limited to 24 students. To register, fax or call NLM with your name, complete mailing address, phone number, and (if you are a subscriber) your NLM user identification code. The address is: IRIS/TOXNET Workshop, Toxicology Information Program, National Library of Medicine, 8600 Rockville Pike, Bethesda, Maryland 20814 (Phone (301) 496-6531; Fax (301) 480-3537).

### Scientists Call for Biodiversity Preservation

Two premier scientific groups are calling for international efforts to preserve biodiversity in tropical nations.

Through a joint statement, the National Academy of Sciences in Washington, D.C., and the Royal Society in

England have outlined an action plan aimed at helping developing countries sustain their plants, animals, and ecosystems.

"Loss of biodiversity is, in our view, a potential loss for everyone," the statement reads. "The interplay between tropical ecosystem processes and the atmosphere may have significant effects on climate change. (Also) the economic potential of currently unexploited species and organisms for medical, industrial, and agriculture use is substantial."

The groups propose three major steps for the international community:

- To establish a network of biological institutes in developing countries that have key ecological systems. The institutes would parallel the medical institutes under the auspices of the World Health Organization. The centers would conduct research and train staff.
- To undertake more research in biodiversity in the developed world, from molecular biology to ecological systems. This work should provide training for scientists in developing countries and advice on the scientific parameters needed to manage the worldwide conservation of biodiversity.
- To bring these biological institutes together through international collaboration and to supply financial aid.

For more information, contact Stephen Push, National Academy of Sciences, 2101 Constitution Avenue N.W., Washington, D.C., 20418 (Phone (202) 334-2000).

## Nominations for 1992 Elections Announced

The SRA Nominating Committee, chaired by former SRA president John Garrick, has announced the nominees for president-elect and three councilor positions in SRA's 1992 elections. The president-elect automatically becomes the chairman of the Annual Meeting Committee. Each councilor serves three-year terms.

### President-Elect: Apostolakis vs. Tardiff

**George Apostolakis** is a professor in the Mechanical, Aerospace, and Nuclear Engineering Department at the University of California in Los Angeles. He has a diploma in electrical engineering from National Technical University in Athens, Greece, and a master's degree in engineering science and a PhD in engineering science and applied mathematics from California Institute of Technology in Pasadena. His research interests include mathematical methods for risk and reliability assessment of complex technological systems, uncertainty analysis, decision analysis, fire risk assessment, and applications of probabilistic models to safety and reliability analyses of nuclear reactors, space systems, and the control of hazardous substances. He is a consultant on several projects, including the *Manual for Probabilistic Safety Assessment (PSA) Utilization and Implementation for Safety Decisions* for the International Atomic Energy Agency and program management and probabilistic risk assessment for the U.S. Department of Energy.

A charter member of SRA, Apostolakis served on the SRA Council from 1987-90. He is also a founding member and former president of the Southern California Chapter of SRA. In 1988 he proposed that SRA sponsor a Probabilistic Safety Assessment and Management International Conference (PSAM) and was the general conference and technical chairman of PSAM in 1991. Later that year at the SRA annual meeting in Baltimore, the Society presented Apostolakis with an Outstanding Service Award. He also is on the editorial board of *Risk Analysis: An International Journal*.

**Robert G. Tardiff** is vice president of human health risk assessment at EA Engineering Science and Technology, Inc. He has a BA degree in biology from Merrimack College and a PhD in pharmacology and toxicology from the University of Chicago. He is an expert in toxicology, including scientific evaluation of the toxicity of substances regulated under federal and state statutes, and he has more than 27 years experience directing and conducting risk assessments and developing methodologies. Previously, he was chief of the Toxicological Assessment Branch of the Environmental Protection Agency and executive director of the National Academy of Sciences/National Research Council's board on toxicology and environmental health hazards. He has performed toxicologic interpretations and research, risk assessments and safety evaluations, and regulatory compliance evaluations. Tardiff also is an editor on toxicology and environmental health journals.

An SRA charter member, Tardiff was part of the steering committee that organized the Society. He was the interim secretary before SRA's first election of officers and in 1986 was elected to a three-year term on the Council. He is on the editorial board of *Risk Analysis: An International Journal*.

### Councilor: Bier vs. Cox

**Vicki M. Bier** is an assistant professor with a joint appointment in the Department of Industrial Engineering and Department of Nuclear Engineering and Engineering Physics at the University of Wisconsin in Madison. During the 1989-90 academic year she was on leave to accept the National Science Foundation Visiting Professorship for Women at the Chemical and Nuclear Engineering Department of the University of Maryland. Her prior positions were with PLG, Inc., performing Bayesian data analysis in support of nuclear power plant risk assessments and risk analysis of various engineered systems, and with Arthur D. Little, Inc., as a consultant in the Risk Analysis Unit of the Safety and Engineering

Technology Section. She has a BS degree in mathematical sciences from Stanford University and a PhD in operations research from the Massachusetts Institute of Technology. Her research interests are risk analysis, decision analysis, operations research, methods development for risk analysis of nuclear power plants (particularly with regard to uncertainty analysis), treatment of uncertainty in estimation and decision making, and societal decision making with regard to technological hazards.

Bier, a member of SRA since 1984, is on the editorial board of *Risk Analysis: An International Journal*.

**Louis Anthony Cox Jr.** is a consultant in probabilistic risk assessment and health, safety, and environmental risk analysis with Cox Associates in Denver, Colorado, and is technical director of modeling and signal processing applications with US WEST Advanced Technologies in Boulder, Colorado. He has an AB degree in mathematical economics from Harvard University and a PhD in risk analysis and SM in operations research at the Massachusetts Institute of Technology (MIT). Cox has taught graduate courses at MIT's Sloan School of Business, the Harvard University Extension School, and the Denver University Graduate School of Business; served on the Advisory Board of the Mathematics Department at the University of Colorado at Denver since 1987; and given invited lectures on current research topics in artificial intelligence and probabilistic risk assessment, computer science, and operations research to faculties and graduate students at several schools. Since 1988 he has lectured in courses on advanced algorithms for combinatorial network reliability and survivability analysis at the University of Colorado in Denver.

Cox, an SRA member since 1983, is on the editorial board of *Risk Analysis: An International Journal*. In 1990 he co-taught a course on biologically based risk assessment at the 1990 SRA Annual Meeting in New Orleans.

### **Councilor: Burke vs. Freudenburg**

**Thomas A. Burke** is an assistant professor at the Johns Hopkins University, School of Hygiene and Public Health, Department of Health Policy and Management, with a joint appointment in the Department of Environmental Health Sciences. He is a member of the National Academy of Sciences' panel on separations technology and transmutation systems and a member of the Office of Technology Assessment Advisory Panels on research on risk assessment of chemical carcinogens and managing nuclear materials from warheads. He received his BS degree from Saint Peter's College, MPH from the University of Texas, and PhD in epidemiology from the University of Pennsylvania. His research interests include environmental epidemiology, the evaluation of community exposures to environmental pollutants, and the application of epidemiology and health risk assessment to public policy.

Prior to his appointment at Johns Hopkins, Burke was deputy commissioner of health for the State of New Jersey. He has also served as assistant commissioner for occupational and environmental health at the New Jersey Department of Health and as director of the Office of Science and Research in the New Jersey Department of Environmental Protection. At both departments he established environmental risk assessment programs. He also has served as the scientific coordinator for many of New Jersey's major investigations, including toxic contaminants in drinking water and dioxin contamination from industrial sources.

Burke has been an SRA member since 1989.

**William R. Freudenburg** is a professor of rural sociology at the University of Wisconsin-Madison and the president of a small consulting firm, Social Science Research Associates, Inc. He has a BA degree in communication from the University of Nebraska-Lincoln and an MA, MPhil, and PhD in sociology from Yale University. He has devoted 15 years to studying techno-

logical controversies and the social impacts of environmental and technological change, with a special emphasis on social-science aspects of risk assessment and management. He has published several articles in interdisciplinary and sociological journals. His latest book is a comparative study of risk perceptions toward offshore oil development in Louisiana and California. In 1991 Freudenburg won the Award of Merit from the Rural Sociological Society's Natural Resource Research Group for his work on resource-dependent communities, including the Rocky Mountain energy boom towns of the 1970s.

Freudenburg is the secretary of Section K (social, economic, and political sciences) of the American Association for the Advancement of Science. He also serves on a committee for the National Academy of Sciences/National Research Council, assessing the adequacy of scientific information for offshore oil development in Alaska, and previously was a panelist on an exploratory committee on the future of nuclear power. He was the American Sociological Association's first congressional fellow to serve in the U.S. House of Representatives, and for six years he was a member of the Scientific Advisory Panel on Outer Continental Shelf oil and gas leasing for the U.S. Department of the Interior.

Since he became an SRA member in 1984, Freudenburg has arranged a number of sessions for the annual meetings and made several presentations.

### **Councilor: Hubert vs. Kemp**

**Philippe Hubert** is director of the Service of Risk Assessment and Risk Management in France, which specializes in the health and economic consequences of nuclear activities. He has an engineering degree from the Ecole Polytechnique in Paris, and he received additional training in economics and statistics from the Ecole Nationale Supérieure des Statistiques et de l'Administration Economique. Previously he worked with the Institute of Protection and Nuclear Safety, a French governmental institution responsible for controlling nuclear installations and for

developing applied nuclear research in the areas of industrial safety, environment, and social impact. He also worked for 10 years with the research group CEPN, which assesses the risks of nuclear practices and of transporting hazardous materials. His publications concern topics such as probabilistic risk assessment applied to hazardous goods transport, risk estimation methods for low doses, and risk management policies.

Hubert is a member of SRA-Europe and organized, as secretary of the Organizing Committee, the Third SRA-Europe Conference in Paris in 1991.

**Ray Kemp** is a principal environmental planner with the Environmental Management Group of Dames and Moore, based in London, England. He leads their work on hazard assessment, risk communication, and environmental impact assessment. Kemp undertook his doctorate in planning in the nuclear industry at the University of Wales in Cardiff and then went on to work with SRA member Tim O'Riordan at the University of East Anglia (UEA) in Norwich, England, where he joined UEA's Environmental Risk Assessment Unit as its first post-doctoral researcher. Kemp specialized in the public acceptance of risk, risk perception, and risk communication for a variety of environmental problems. He became lecturer in planning and environmental risk assessment and later coordinator of the UEA's World Health Organization Collaborating Centre for Environmental Health Risk Assessment and Communication. He has published two books and more than 30 articles on environmental risk assessment and communication and is one of the editors of the Kluwer Academic Publishers series on technology, risk, and society.

A member of SRA-Europe since 1988, Kemp joined SRA in 1989. He has presented papers at SRA annual meetings and co-edited two special issues of European papers for *Risk Analysis: An International Journal*. He was a member of the organizing committees for the SRA-Europe annual conferences in Laxenburg and Paris and has presented papers at SRA-Europe meetings.

## Chapter News

### East Tennessee Chapter

East Tennessee Chapter will host a "Risk Methods Day" on August 25. On September 28 at 5:30 p.m., the chapter is scheduled to meet at HAZRAP, Martin Marietta Energy Systems, for a program on risk communications.

**Jan Borkowski**, HAZRAP, Martin Marietta Energy Systems, is president of the chapter. The other officers (and their phone numbers) are: president-elect, **Joe Minarick**, Science Applications International Corp., (615) 432-6743; secretary, **Jean MacInnis**, Martin Marietta Energy Systems, (615) 576-2128; and treasurer, **Roy Hardwick**, H & R Technical, (615) 481-2088.

### New England Chapter

**Charles A. Menzie** of Menzie-Cura Associates became president of the New England Chapter in June. Serving with him are the new president-elect, **Alan Eschenroeder** of Alanova, and secretary, **Margaret Round** of NESCAUM. **Yee Cho** was re-elected as treasurer.

The chapter is on vacation until September. For information on the upcoming seminar series, contact Menzie (Phone (508) 453-4300; Fax (508) 453-7260). To be placed on the chapter's mailing list, call Round (Phone (617) 367-8540). To become a member of the chapter, with annual dues of \$15 (\$7.50 for students), contact Cho, CDW Consultants, Inc., 111 Speen Street, Suite 119, Framingham, MA 01701 (Phone (508) 875-2657).

### Northern California Chapter

The Spring Meeting of the Northern California Chapter, together with the Northern California Chapter of the Society of Toxicology and the Genetic and Environmental Toxicology Association of Northern California, was held on June 4 at the Berkeley Marina Marriott. The topics of the morning and afternoon sessions were transgenic animals and air toxics, respectively.

The speakers and their topics were: **Jay Short** of Stratagene Cloning Systems, "Transgenic Mice and Rats for Genotoxicity Testing"; **Ted Choi** of GenPharm International, "Transgenic Mouse Models for Carcinogenesis"; **Lionel Feigenbaum** of the American Red Cross, "A Transgenic Animal Model of a Neurological Disorder"; **Wayne Ott** of Stanford University, "Total Human Exposure to Toxic Pollution Measured through Personal Monitoring"; and **Peggy Jenkins**, "Indoor Air: Risks and Resources," and **Don Ames**, "Overview of California Air Toxics Programs," both of California Air Resources Board.

### Ohio Chapter

A meeting of the Ohio Chapter, co-sponsored with the Ohio Valley Chapter of the Society of Toxicology, was held on June 5 at the University of Cincinnati's Kettering Laboratory, with a reception for members of both chapters held on the previous evening at Cincinnati's Museum Center at Union Terminal. Organized by chapter councilor **Jon Reid**, University of Cincinnati, the meeting topics were "Ecogenetics" and "Approaches to Risk Assessment." The speakers and their topics included: **Daniel Nebert**, "Human Enzyme Polymorphisms: Prediction of Individual Risk for Toxicity and Cancer," and **Eula Bingham**, "Issues and Ethics of Human Polymorphisms," both of the University of Cincinnati; **Rita Schoeny** of the Environmental Protection Agency, "EPA Approaches to Risk Assessment"; **David Dankovic** of NIOSH, "NIOSH Approaches to Risk Assessment: 1,3 Butadiene"; and **Harvey Clewell** of Mantech, Inc., "Air Force Approaches to Risk Assessment: CFE Oligomers and Methylene Chloride." A round table discussion based on questions from the audience ended the meeting.

The next meeting will be in October on "Composting of Municipal Solid Wastes: Associated Problems and Possible Health Risks." For further information about this meeting, contact **Bert Hakkinen** (Phone (513) 627-1521; Fax

(513) 627-2292) or **Michael Dourson** (Phone (513) 569-7533; Fax (513) 569-7475).

### Greater Pittsburgh Chapter

The Greater Pittsburgh Chapter is currently in the process of holding a special election to fill the position of president-elect for the remainder of 1992. President-Elect **Jon F. Merz** of the Department of Engineering and Public Policy, Carnegie Mellon University, has accepted a new position with the Rand Corp. and is moving to California in the fall. Merz previously served a two-year term as the first secretary of the chapter. The election of officers for 1993 will be held in the fall.

The next chapter meeting will be held on September 29 at the Graduate School of Public Health, University of Pittsburgh. In keeping with the United Nations' current program on the management of natural disasters, the topic for the meeting is "Natural Disaster Reduction: The Role of Risk Analysis." **Steve Rattien** of the National Research Council and **Lester Lave** of Carnegie Mellon University, both of whom are actively working in this area, will speak.

### Research Triangle Chapter

Research Triangle Chapter's Annual Workshop will be held on September 15 at the William Friday Continuing Education Center in Chapel Hill, North Carolina. The topic of the workshop is "Risk Management: Critical Issues and Case Studies." The Chapter is co-sponsoring the workshop with the University of North Carolina at Chapel Hill School of Public Health, Department of Environmental Sciences and Engineering. SRA President **Warner North** of Decision Focus will give the keynote address on "The Value of Information." The workshop schedule includes two panel discussions and seven presentations by the following speakers: **Kenneth Rudo**, North Carolina Department of Health Environment and Natural Resources; **Harris**

Sondak, Fuqua School of Business, Duke University; Frederick W. Talcott, Office of Policy Analysis, Environmental Protection Agency (EPA); Robert G. Kellam, Pollutant Assessment Branch, EPA; V. Kerry Smith, North Carolina State University; Al Vickers, Regulatory Affairs, Reichold Chemical; and SRA President-Elect Jim Wilson, Monsanto Company. The registration fee is \$55 for non-members, \$50 for members, and \$20 for non-member students. Non-members may join the chapter for 1992-93 by adding \$5 to the registration fee. Workshop participants are asked to register by August 30.

The Workshop Planning Committee is chaired by Chapter Councilor Deborah Amaral of the University of North Carolina School of Public Health and includes Sharon Ambrose, Sholeh Azar, Harvey Gold, Jenifer Heath, James Plautz, Harvey Richmond (editor of the chapter newsletter), President Josephine Mauskopf, President-Elect Julie Kimbell, Secretary Robert Hetes, Treasurer James White, and Councilors Annie Jarabek and Bill Mitchell. For more information on the workshop, contact Amaral (Phone (919) 966-6691).

Before adjourning for the summer, the chapter met on June 11 to hear

## Chapter Contacts

**Columbia-Cascades:** Jim Dukelow (president), (509) 376-7074.  
**East Tennessee:** Jan Borkowski (president), (615) 435-3232.  
**Greater Pittsburgh:** Jeanette Trauth (president), (412) 624-0968.  
**Lone Star:** Ben Thomas (president), (713) 520-9900.  
**Metropolitan:** Paul Moskowitz (president), (516) 282-2017.  
**Michigan:** Douglas Kononen (president), (313) 986-1351.  
**National Capital Area:** Rebecca Klemm (secretary), (202) 667-5244.  
**New England:** Charlie Menzie (president), (508) 453-4300.  
**Northern California:** Thomas McKone (secretary), (510) 422-7535.  
**Ohio:** Bert Hakkinen (president), (513) 627-1521.  
**Philadelphia:** Isadore (Irv) Rosenthal (president), (215) 898-3664.  
**Research Triangle:** Josephine Mauskopf (president), (919) 248-3345.  
**Rocky Mountain:** Ralph Grover (president), (303) 450-0005.  
**Southern California:** Bob Mulvihill (president), (310) 640-1050.

Peter Millard of the Department of Social Medicine in the University of North Carolina Hospitals speak on "Tuberculosis: Why it's back." In his abstract, Millard stated that after falling by 5% per year since national reporting began in 1953, the number of new TB cases has increased in the United States by 16% since 1985. The increase began in New York City in

1979, with the incidence doubling since that time. Multidrug resistant strains are increasing rapidly. While the HIV epidemic has contributed to the increase, other factors such as homelessness, unemployment, drug and alcohol use, and lack of public infrastructure may play important roles and are more amenable to public health interventions.

## Member News

George Apostolakis, professor of engineering and applied sciences at the University of California in Los Angeles, is among five new American Nuclear Society (ANS) fellows who were recognized during the Honors and Awards Luncheon at the 1992 ANS Annual Meeting in Boston. He was given the citation "for his distinguished achievements as a researcher and educator in the field of nuclear reactor safety, and his outstanding contributions to the theoretical basis of probabilistic risk assessment and its application to nuclear power plant analysis, design, and safety."

Vlasta Molak, SRA secretary, has accepted the new position of manager

for risk analysis with the Environmental Services Center of Executive Resource Associates, Inc. Her new address is: 10991 Hamilton Cleves Highway, Oakridge Industrial Park, Harrison, OH 45030 (Phone (513) 738-0002; Fax (513) 738-4329).

Milton Russell of the University of Tennessee Energy, Environment and Resources Center and Oak Ridge National Laboratory has been named an advisor on energy and environmental issues to U.S. Secretary of Energy James D. Watkins. Russell was appointed to a 29-member advisory board which helps the U.S. Department of Energy (DOE) form long-range plans

and analyze major issues and initiatives. The board's agenda includes the role of DOE national laboratories, radioactive waste disposal, energy conservation, and renewable sources of energy. The advisors serve renewable two-year terms.

## Corrections

On page 13 of the second quarter 1992 issue of RISK newsletter, the name of the deputy administrator of EPA should have been listed as Henry Habicht II.

In the same issue on page 3, the chair of the SRA Global Risk Analysis Specialty Group should have been listed as Justin Lancaster.

## Positions Available

### Environmental Professionals:

#### Risk Assessment Consultant

Law Environmental, Inc., a leader in environmental engineering and earth science consulting, currently seeks a Risk Assessment Consultant for our Kennesaw, GA, headquarters.

#### Job responsibilities include:

- Perform health-based risk assessments for government and commercial sites;
- Manage projects;
- Train staff.

#### Job requirements include:

- BS with three to five years experience or MS with two to three years experience;
- Degree in biology, chemistry, or health-related;
- Experience performing risk assessments in accordance with RAGS;
- Environmental modeling, statistics, and RCRA/CERCLA knowledge desired.

Our nationwide branches employ over 1,000 multi-disciplinary professionals. For those who share our passion for competitive excellence and seek to contribute to a leading, employee-owned company, we offer personal and professional rewards. Send your resume in full confidence to: Law Companies Environmental Group, Human Resources, Dept. RN; 114 TownPark Drive, Kennesaw, GA 30144.

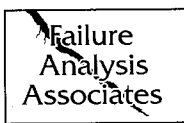
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### Scientist

Failure Analysis Associates, Inc. (FaAA), an international engineering and scientific services firm, has an opportunity for a Scientist for our Menlo Park headquarters.

You'll analyze accident, injury and population data; critique literature on accident statistics; and develop estimates for risk of injury or fatality for various activities. Requires a PhD in experimental psychology, behavioral sciences, or related field, 5-10 years' related experience, and strong quantitative training in research design.

FaAA offers a compensation and benefits package which exceeds industry standards. For confidential consideration, please send your resume to: Vermetta Wilson, Failure Analysis Associates, Inc., Job # 135, 149 Commonwealth Drive, Menlo Park, CA 94025 or call (415) 688-7021. FAX: (415) 328-3049. EOE.



### Risk Assessment

The Environmental Evaluation Group, Albuquerque, New Mexico is seeking a senior level scientist to assess long-term integrity of the WIPP repository for defense TRU wastes as part of an independent scientific evaluation of relevant field of science or engineering and at least five years experience in hydrologic modeling, environmental transport and/or risk analysis. Background in a radiation related field, preferably radioactive waste management, good communication skills, ability to produce publications, demonstrated ability to work independently, and some travel. Preference will be given to most experienced applicants with publications in the field. Salary range is \$54,607 - \$67,347, equivalent to GS-14/1 - GS-14/8 of federal general schedule pay system. EEG is part of New Mexico Institute of Mining and Technology and participates in Tech's employment benefits. Send resume and list of publications to: New Mexico Institute of Mining and Technology, Human Resources, Wells Hall Box C-068, Socorro, NM 87801.

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### Safety & Risk Assessment Engineer

Battelle, Pacific Northwest Laboratory (PNL) seeks an individual with a Bachelor's degree (Master's preferred) in Health Physics and three to five years experience in safety analysis and risk assessment. Applicant should be familiar with DOE safety analysis policies and orders, especially in an R&D environment. Understanding of the principles of probabilistic vs. deterministic risk assessment and the ability to develop both radiological and non-radiological scenarios desired.

Primary duties will be to develop and assist with implementation of PNL's safety analysis program and to develop safety and risk assessment procedures in response to increasing DOE requirements in this area. Assistance with other safety and risk assessment programs, including technical safety requirements (TSRs), nuclear facility safety appraisals, unreviewed safety questions (USQs), and safety classification may also be required. Send resumes to:

Battelle, Pacific Northwest Labs  
P.O. Box 999, Department 6205-MJH  
Richland, WA 99352

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### Membership Update

As of August of this year, the Society for Risk Analysis had 1,803 members. The following breakdown of membership by nationality does not include individuals in Europe, Japan, and the Philippines who are affiliated with SRA sections but have not joined the international Society.

Australia 4	Czechoslovakia 1	Italy 5	Spain 1
Austria 2	Denmark 2	Japan 26	Sweden 18
Belgium 6	Finland 9	Luxemburg 1	Switzerland 18
Bulgaria 1	France 12	Mexico 1	Taiwan 2
Canada 46	Germany 13	New Zealand 3	Turkey 1
Colombia 1	Greece 3	Netherlands 17	Ukraine 3
Costa Rica 1	Hungary 1	Norway 7	U.K. 16
Croatia 1	Israel 4	Philippines 1	U.S. 1,576

## Risk Courses Offered

September 9-11. **RISK ANALYSIS IN OCCUPATIONAL & ENVIRONMENTAL HEALTH**, Harvard School of Public Health, Boston, Massachusetts. Fee \$750. For information, contact Mary F. McPeak, Office of Continuing Education, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115 (Phone (617) 432-3515; FAX (617) 432-1969).

September 21. **ASBESTOS REFRESHER COURSE FOR INSPECTORS, MONITORS, AND MANAGEMENT PLANNERS**, Harvard Educational Resource Center, Boston, Massachusetts. Curriculum follows DOL and EPA guidelines addressing the current health and regulatory agency standards for managing asbestos abatement projects and new techniques for asbestos control. Optional certification exam for inspectors, monitors, and management planners will be given at conclusion of program. Tuition: \$250. Enrollment deadline is one week prior to the course date. Limited tuition scholarships are available for individuals who would otherwise be unable to attend a course and are in a position that significantly affects worker safety and health. Further information regarding the course may be obtained by contacting Daryl Bichel at Harvard Educational Resource Center, 665 Huntington Avenue, Boston, MA 02115 (Phone (617) 432-3314; Fax (617) 432-0219).

September 22. **ASBESTOS REFRESHER COURSE FOR PROJECT DESIGNERS**, Harvard Educational Resource Center, Boston, Massachusetts. For practicing project designers to review core skill requirements under existing regulations and expand skill development by class participation in case studies. Optional refresher certification examination will be given at end of program. Tuition is \$225. (For more information, see September 21 entry.)

October 26-30, November 9-13 and 16-20. **SAFETY ANALYSIS & RISK ASSESSMENT FOR CHEMICAL PROCESS INDUSTRY PRACTITIONERS**, Miami Beach, Florida. Three courses designed to teach engineers and scientists how to perform safety analyses and risk assessments of CPI plants. Course 1: Hazards Evaluation—Qualitative Methods, Hazards Identification and Assessment. Course 2: Hazards Evaluation—Quantitative Methods, Reliability and Risk Assessment of CPI Systems. Course 3: Consequence Assessment & Mitigation. Organized by the American Institute of Chemical Engineers (AIChE) in association with its Center for Chemical Process Safety. For more information, contact AIChE, 345 East 47th Street, New York, NY 10017.

## Calendar of Events

September 21-24. **HYDROCARBON CONTAMINATED SOILS: ANALYSIS, FATE, ENVIRONMENTAL & PUBLIC HEALTH EFFECTS, AND REMEDIATION**, University of Massachusetts at Amherst, Massachusetts. The Seventh National Conference has several sponsors, including the Association for the Environmental Health of Soils and the Northeast Regional Environmental Public Health Center at the University of Massachusetts at Amherst. Topics will include national and international approaches, diesel fuel, field screening and analytical methodologies, remediation, risk assessment and management, regulatory policy, environmental fate/modeling, cleanup standards, petroleum product identification, legal considerations, and real estate, banking, and insurance issues. For general information contact the conference director Paul T. Kostecki or Linda Rosen at the Division of Public Health, University of Massachusetts, Amherst, MA 01003 (Phone (413) 545-2934). For information on exhibits, contact Charles Bell at the same address (Phone (413) 545-4269).

October 2-4. **SIXTH MEETING OF THE SOCIETY FOR HUMAN ECOLOGY (SHE)**, Snowbird, Utah. The theme of the meeting is "Human Ecology: Crossing Boundaries," emphasizing the role of human ecology in spanning boundaries between traditional disciplines, theory and practice, individuals and society, and social, biological and physical environments. A significant portion of the program will be devoted to environmental social science. For more information, contact Scott D. Wright, FCS Department, University of Utah, 228 AEB, Salt Lake City, UT 84112 (Phone (801) 581-8750; Fax (801) 581-3007, marked "ATTN Scott Wright").

October 27-28. **THE CLEAN AIR ACT: MARKET-BASED APPROACHES TO THE NEW STATUTE**, Stouffer Concourse Hotel, Arlington, Virginia. Fourth Clean Air Conference sponsored by Inside EPA—authoritative, weekly report on environmental regulation and legislation. The Clean Air Act will be presented as the basis for an entirely new approach to environ-

mental regulation: replacing traditional command-and-control techniques with market-based innovations, such as emissions credits which can be sold or traded. The program will fully update all major Clean Air Act developments, such as enforcement and compliance, permitting, toxic air emissions, and inspection and maintenance programs. Registration fee: \$650. For more information, contact Inside EPA, P.O. Box 7167, Ben Franklin Station, Washington, D.C. 20044 (Phone (800) 424-9068 [toll-free] or (703) 892-8505 in Washington, D.C., area; Fax (703) 685-2606).

November 29-30. **SRA-JAPAN FIFTH ANNUAL MEETING AND SYMPOSIUM**, International Congress Hall, Takaragake, Kyoto, Japan. Conference theme is "Urban Risk Issues - Can the Modern City Survive?" and "Aggregation, Dispersion, and Multiplicity of Risks." For more information contact the secretary of SRA-Japan: Saburo Ikeda, Institute of Socio-Economic Planning, University of Tsukuba, Tsukuba, Ibaraki 305, Japan (Phone 0298-53-5380; Fax 0298-55-3849).

December 6-9. **SRA ANNUAL MEETING**, Hotel del Coronado, San Diego, CA. (See page 3 of this newsletter.)

March 14-18, 1993. **SOCIETY OF TOXICOLOGY ANNUAL MEETING**, New Orleans Convention Center, New Orleans, Louisiana. Abstract submission forms are now available, and October 2, 1992, is the deadline for submitting abstracts. The preliminary program of the meeting will be available in December. Continuing education courses will be offered on March 14, including both basic and advanced level risk assessment courses. For more information on the meeting or membership in the society, contact the Society of Toxicology, 1101 14th Street, N.W., Suite 1100, Washington, D.C. 20005-5601 (Phone (202) 371-1393; Fax (202) 371-1090).

April 7-8, 1993. **TWENTY-NINTH ANNUAL MEETING OF THE NATIONAL COUNCIL ON RADIATION PROTECTION**

(Continued on Page 16.)



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Lorraine S. Abbott, *Editor*  
Mary Bryant, *Assistant Editor*  
Amy Charlene Reed, *Contributing Editor*  
Katie Ingersoll, *Production Manager*

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James D. Wilson, *President-Elect*, 1992-93  
Vlasta Molak, *Secretary*, 1991-93  
Raymond F. Boykin, *Treasurer*, 1991-93  
Curtis Travis, *Past President*, 1991-92

**Members of SRA Council:**

R. A. (Tony) Cox, 1992  
Peter Barton Hutt, 1992  
Roger E. Kaspersen, 1992  
Ann Fisher, 1993  
Saburo Ikeda, 1993  
David B. McCallum, 1993  
Donald G. Barnes, 1994  
John D. Graham, 1994  
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**Secretariat:** Richard J. Burk Jr., Executive Secretary,  
Society for Risk Analysis, 8000 Westpark Drive, Suite  
130, McLean, VA 22102. Phone: (703) 790-1745; Fax:  
(703) 790-9063.

**Publications Chairman:** B. John Garrick, PLG, Inc.,  
4590 MacArthur Blvd., Suite 400, Newport Beach, CA  
92660. Phone: (714) 833-2020; Fax: (714) 833-2085.

**Note:** Contributions to the newsletter should be faxed to  
(615) 927-8379 (or (615) 688-9888 [Res.]) or mailed to:

Lorraine S. Abbott  
Editor, RISK newsletter  
Tec-Com, Inc.  
1303 Wilson Road  
Knoxville, TN 37912  
(Phones: (615) 927-4640; (615) 689-5315 [Res.]

## Calendar of Events

(Continued from page 15.)

AND MEASUREMENTS (NCRP), Crystal City Marriott, Arlington, Virginia. The principal scientific session is "Radiation Science and the Public: Can the Gap Be Bridged?" For additional information, contact NCRP, 7910 Woodmont Avenue, Suite 800, Bethesda, MD 20814 (Phone (301) 657-2652; Fax (301) 907-8768).

April 25-28, 1993. THE SECOND INTERNATIONAL SYMPOSIUM ON UNCERTAINTY MODELING AND ANALYSIS (ISUMA'93), Center of Adult Education, University of Maryland, College Park, Maryland. Symposium objective is to bring together researchers from academic, governmental, and industrial institutions to discuss new developments and results in the field of uncertainty modeling and analysis, including probabilistic methods, Bayesian approaches, fuzzy reasoning, and risk management. For more information, contact Professor Bilal M. Ayyub, Department of Civil Engineering, University of Maryland, College Park, MD 20742 (Phone (301) 405-1956; Fax (301) 314-9320; E-mail: ba15@umail.umd.edu).

June 21-23, 1993. FOURTH ANNUAL CONFERENCE OF SRA-EUROPE, Italy. (See Call for Papers on page 8 and SRA-Europe news on page 4 of this newsletter.)

July 10-14, 1994. FIFTH U.S. NATIONAL CONFERENCE ON EARTHQUAKE ENGINEERING, Chicago, Illinois. Organized by the Earthquake Engineering Research Institute (EERI), the theme of this quadrennial conference is "Earthquake Awareness and Mitigation Across the Nation." The purpose is to provide an opportunity for researchers and practitioners to share the latest knowledge and techniques for understanding and mitigating the effects of earthquakes. One of several topics is "Seismic Risk and Hazard Analysis." For technical program information, contact Claudia Cook, Newmark Civil Engineering Laboratory, University of Illinois, 205 N. Mathews, Urbana, IL 61801-2397 (Phone (217) 333-0498). For more conference information and future bulletins, contact EERI, 499 14th Street, Suite 320, Oakland, CA 94612-1902 (Phone (510) 451-0905; Fax (510) 451-5411).

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