

RISK *newsletter*

Published by the SOCIETY for RISK ANALYSIS

Volume 13, Number 2

Second Quarter 1993

Federal Risk Commission Suffers Setback – Again

Just as the final appointments were made at long last to the national Risk Assessment and Management Commission, the White House is putting on the brakes.

Established by the 1990 Clean Air Act Amendments, the Commission was originally expected to have a major impact on how the federal government uses risk analysis in setting regulations. The Commission's mandate is to examine the entire framework of risk assessment and management in the government's environmental decision making — no small task — and report to Congress and the President of the United States by May 1995. Congress was to use the commission's report as a basis for legislative changes.

But the commission's short existence has been fraught with problems. First, of those named to *make* the appointments — then-President George Bush, Majority Leader of the Senate George Mitchell, Minority Leader of the Senate Robert Dole, Speaker of the House of Representatives Thomas Foley, Minority Leader of the House of Representatives Robert Michel, and National Academy of Sciences President Frank Press — some delayed past the mandated May 1992 deadline to name their appointees. Sen. Mitchell, for instance, named his appointments in April 1993 (see related story on this page).

But before the full commission could then pick up steam, the White House began deliberating over whether to replace former President George Bush's appointees with three of its own.

(Continued on page 6.)

Anderson, Rall Appointed



Norman Anderson



David Rall

The final appointments — for now — to the 10-member Risk Assessment and Management Commission are government scientist David Rall of Washington, D.C., and toxicologist Norman Anderson of Farmington, Maine.

U.S. Sen. George Mitchell, D-Maine, appointed Rall and Anderson to the commission in April — almost a year past the May 1992 deadline mandated by Congress for the appointments to be made.

Rall, a leading authority in toxicology and environmental health, was director of the National Institute of Environmental Health Sciences for almost 20 years from 1971 to 1990. Anderson, who is currently the director of environmental health for the American Lung Association of Maine, was regional air toxicologist for the U.S. Environmental Protection Agency's Region I from 1988 to 1989.

Despite the uncertainty surrounding the commission's future (see related story on this page), the new members have high hopes for the group's potential work.

"It would be wonderful if we could work out a way to assure that pre-regulatory risk assessments are the best possible," said Rall. During Rall's tenure as director of the National Institute of Environmental Health Sciences, the institute conducted leading research that many risk assessment techniques are based on today.

Risk analysis problems that currently concern Rall include high dose to low dose extrapolation, interspecies extrapolation, and exposure monitoring.

The commission's work may also include proposing ways the government can rank risks to best allocate limited resources. "We need some way of sorting out dangerous problems from the not so dangerous problems," said Rall, who was also director of the National Toxicology Program from 1978 to 1990 and assistant surgeon general with the U.S. Public Health Service from 1971 to 1990.

(Continued on page 5.)

This newsletter is printed on recycled paper.

McGinty Shares Insights on Clinton's Policies

Editor's Note: Following is an excerpt from Kathleen McGinty's speech at the East Tennessee Environmental Conference in April, which RISK newsletter covered. McGinty is director of the White House Office on Environmental Policy.

I'd like to tell you about the philosophy that forms the Clinton administration's environmental policy. First, the President is committed to showing that the choice that some have suggested exists between jobs and the environment is truly a false choice. Companies such as Northern Telecom Inc. in Nashville have shown that being environmentally progressive just makes plain good business sense. Northern Telecom set a goal for themselves a couple of years ago that their colleagues in the electronics industry thought was just plain crazy. They said, "We're going to eliminate our use of ozone-depleting chemicals in the manufacture of our electronic components." Everyone told them it couldn't be done.

Northern Telecom invested a million dollars to look at all aspects of their production prospects. And what they found was that not only could they reduce their use of chlorofluorocarbons, they could *eliminate* them. After investing a million dollars at the offset, they now save four million dollars every year because they don't have to purchase the CFCs to use in cleaning their electronic circuit boards.

Many companies in the United States are now seeing that by improving their environmental performance, they can in fact *enhance* profits. If we relieve ourselves of the expense of buying some chemicals at the front end, we relieve ourselves of the expense and responsibility of disposing of those chemicals at the other end.

A second pillar of our environmental policy is that many of our most challenging environmental problems now are global in nature. The United States needs to regain a leadership position on international environmental issues, which presents an economic opportunity for us. The market for envi-

Environmental Office Has President's Ear

Of all the new presidential appointees that have ascended on Capital Hill in past months, the one who has emerged as President Clinton's top environmental advisor is 29-year-old Kathleen McGinty.

McGinty is director of the White House Office on Environmental Policy, which Clinton created to replace the Council on Environmental Quality. She is "one of the most powerful of the White House's 'youth brigade' of 20-something policy aides," the *Wall Street Journal* reported on April 1. "She could well play a more influential role on the environment than those who head the Environmental Protection Agency, the Interior Department, and the Energy Department. She has access that most cabinet secretaries can only envy."

McGinty, who sits on the National Security Council, the National Economic Council, and the Domestic Policy Council, reportedly talks with Vice President Gore at least once a day. Before accepting her new post, she served as Vice President Gore's senior environmental advisor. Trained as both a chemist and an attorney, she was the U.S. Senate's top staff advisor for the United Nations Conference on Environment and Development held last year in Brazil.



Kathleen McGinty

ronmental products and services are now at \$200 billion a year.

The President has announced the United States will sign the biodiversity treaty proposed at last year's Earth Summit in Rio de Janeiro, Brazil.* As many of you may know, the United States was the only industrialized country last year to decline to sign the treaty.

Another major announcement that the President has made is related to climate change. He reaffirmed his commitment to reduce greenhouse gas emissions. Again, President Clinton feels that this will not be a burden for us but an opportunity. We can save energy and save money by using efficient technologies that have already been developed but are sitting on a shelf.

As the international market for these technologies grows, the President is committed to having American technology lead the way from toxic waste cleanup to energy efficient light bulbs.

As further evidence of his commitment, the President signed an executive order that will put the federal government out in front in purchasing the most efficient computer technologies in the world. This all came about when environmental leaders came to the EPA and said that by the end of the decade, more than 10% of our energy use will be in computers and printers and similar equipment.

The EPA responded by issuing a challenge to U.S. companies to produce the most efficient computers in the world. Today about 70 companies have voluntarily signed up and are producing computers that use 75% less energy than their counterparts produced by other companies.

This, too, is a reflection of the new spirit, the sense of common purpose and unity about these issues, that is alive today in the United States.

*President Clinton signed the biodiversity treaty on June 4.

EPA Nearing Cabinet-Level Status

The creation of a U.S. Department of Environmental Protection took a major step forward with the passage of Senate Bill 171 by a vote of 79-15 on May 4. The bill is now in the U.S. House of Representatives as H.R. 109, where it faces numerous amendments.

The Senate bill goes beyond making the U.S. Environmental Protection Agency the federal government's 15th Cabinet department. It also would:

- Establish a bureau of environmental statistics.
- Require health and environmental risk assessments and cost-benefit analyses of all new EPA regulations.
- Create a commission to examine how the government implements its environmental policies.
- Abolish the 23-year-old Council on Environmental Quality.
- Designate an assistant secretary to oversee environmental concerns on Indian lands and create an ombudsman for small business and local government concerns.
- Establish an office of environmental justice to ensure that minority communities and poor people are not disproportionately affected by pollution.

Many of those in the risk community are at odds over whether the bill would have a significant impact on the organization of the EPA or on risk analysis within the EPA if it becomes law. Below are several viewpoints that RISK newsletter has gathered:

"As more research projects are done jointly between EPA and other departments like agriculture, it will be better if EPA comes to the table as a Cabinet post. This bill might also lead to consolidating research functions, which would create a better base of research under risk assessment."

—**Jeanette Wiltse**, EPA's Deputy Director of the Office of Health and Environmental Assessment and an SRA member

"Because EPA is definitely in the role of being an activist pioneer in risk

EPA Chief Values Science



Carol Browner

Carol M. Browner says that scientific analysis is one of her priorities as the new administrator of the Environmental Protection Agency.

"I want all of our work at EPA — particularly our scientific analysis — to be recognized nationally as the very best," Browner said in a written statement. She declined to be interviewed by RISK newsletter about her goals for risk analysis within EPA until she names the assistant administrator of EPA's Office of Research and Development.

Before joining EPA, Browner was secretary of Florida's Department of Environmental Regulation, which is the third largest state environmental agency in the nation with a budget of \$750 million and a staff of 1,700.

Browner's accomplishments as head of Florida's environmental department include reducing paperwork for permit requirements, winning the passage of the Florida Clean Air Act, combating water pollution in the Everglades, and negotiating environmental packages with key companies. In one deal with Walt Disney Co., for example, she negotiated the transformation of an 8,500-acre ranch into a wildlife refuge in exchange for permission for Disney to continue development in the Orlando area.

Browner, who is 37, has five years of experience working in Congress as legislative director for Vice President Al Gore and as a senior legislative aide to Florida Governor Lawton Chiles when both men were senators. In Congress, she worked extensively on areas such as the Clean Air Act Amendments, land preservation, and a ban on offshore oil drilling in Florida. She also formerly served as associate director of Citizen Action, an environmental advocacy group. Browner earned her law degree from the University of Florida at Gainesville in 1979.

assessment among all federal agencies, its elevation to Cabinet-level status means it will become more influential among other agencies in regard to their adopting newly developed methodologies in risk assessment."

—**Robert G. Tardiff**, SRA president-elect and vice president of health sciences at EA Engineering, Science & Technology Inc.

"I don't think it will make much difference. Risk assessment will always be an important priority at EPA, but I make the assumption that the change to cabinet status will not include any essential changes in the organization of EPA's structure.

"The functions that are there will remain there, and the problems that are

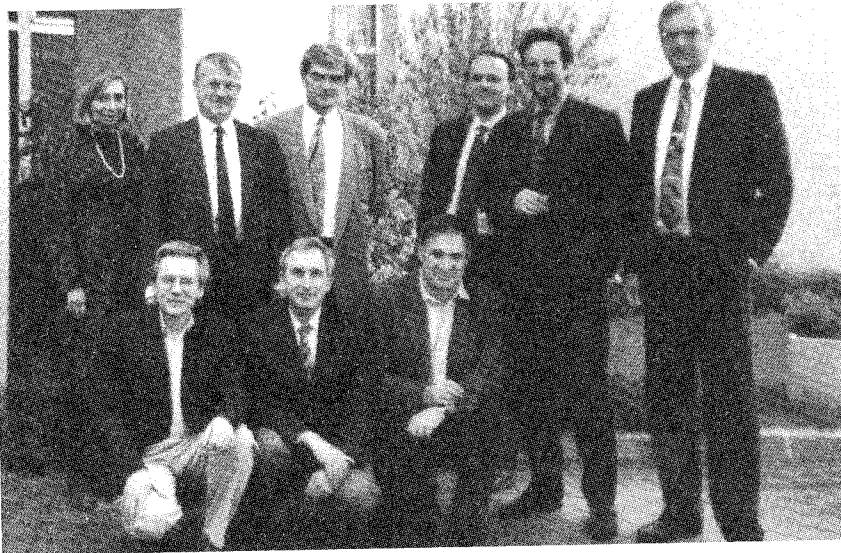
there will remain there. The people who use risk assessment will still be there, and those responsible for improving methodology will remain there."

—**Jim Wilson**, president of SRA and regulatory issues director of the Environmental, Safety, and Health Staff of Monsanto Co.

"Some people in the agency see this as window dressing, but the impact will be great on how the EPA relates to other departments and countries.

"One of the main reasons the bill is important is on the international level. Most other countries have a ministry of the environment — their equivalent of the Cabinet. It strikes people in other countries as strange that the EPA, which

(Continued on page 12.)



SRA-Europe Executive Committee members met in April in Paris. Front row, from left to right: Tony Cox, Vitaly Eremenko, and Philippe Hubert. Back row, from left to right: Catherine Zwetkoff, Detlef Müller, Pieter Jan Stallen, Paolo Vestrucci, Marc Poumadère, and Martin Brüstlein.

SRA-Europe Plans Future

Members of the SRA-Europe Executive Committee met on April 9 in Paris to discuss an agenda of topics presented by Marc Poumadère, president of SRA-Europe. Co-opted member Catherine Zwetkoff, University of Liège, Belgium, also attended.

Former SRA-Europe president Tony Cox is formalizing a ballot for the 1993 elections of SRA-Europe Executive Committee members. The Committee will include information about the executive committee and future section plans with the ballot mailing, which Phillipe Hubert is overseeing.

Fourth Annual Conference

Paolo Vestrucci and Tony Cox presented the general program outline of the Fourth SRA-Europe Conference, to be held in Rome on October 18-20. The conference will focus on three parallel sessions. Abstracts for 141 presentations have been received.

In organizing the European conferences, two objectives are considered: one is to present the most advanced state of the art in European risk analysis and the other is to examine the European "real" situation as it is, in-

cluding major discrepancies between countries' goals and practices that lead sometimes to gaps in quality by western standards. The goals of the SRA-Europe conferences are to unite SRA members, to enhance the development of risk analysis in Europe as a whole, and to play an educational role.

The Committee also discussed financial assistance for members from Eastern European countries to attend conferences.

Russian Federation Section

Vitaly Eremenko gave a progress report on the creation of the Russian Federation Section of SRA-Europe and distributed a proposed charter to the Committee. Eremenko stated that one of the new section's goals is to work toward replacing political and religious ideologies with risk analysis as a means for decision making in the Russian Federation. The Committee discussed sending copies of *Risk Analysis* and relevant risk literature to the section, as well as possibly publishing a selection of *Risk Analysis* papers in Russian.

(Continued on page 7.)

News from SRA-Japan

The spring annual meeting and workshop of SRA-Japan will be held on June 25 at Sanzyo Hall, University of Tokyo. The topic of the meeting is "Recent Research Issues and Management Approaches toward Environmental and Ecological Risks." Ken Tsuchiya of the Medical College of Industry and Labor is the guest lecturer. SRA councilor and SRA-Japan Deputy President and Secretary Saburo Ikeda of the University of Tsukuba will chair a panel discussion with panelists Eizi Yokoyama, National Institute of Public Health; SRA-Japan President Tomio Kinoshita, Kyoto University; Saburo Matsui, Kyoto University; and Osami Nakasugi, National Institute of Environmental Studies. At the council meeting before the workshop, a committee will be selected to plan the 1995 joint conference between SRA and SRA-Japan.

On November 25 and 26 the fifth annual meeting and symposium of SRA-Japan will be held in the conference room at Yasuda Maritime & Fires Insurance Ltd., Shin-Juku, Tokyo. "Informed Consent and Risk Communication" is the conference theme. Tomitaro Sueishi, the first president of SRA-Japan, is the guest speaker, addressing the topic "Safety and Danger: Dimensions of Risk Sciences."

A special issue of SRA-Japan's official journal is expected to be published in August 1993. Titled *Risk Lexicon*, the 70-page volume covers 35 items in a short survey of important risk issues and is structured under the following list of headings: Introduction, Definitions of Risks, Topology, Sources of Risks in Multi-Disciplinary Fields, Assessing and Comparing Risks (Methodologies and Cases), and Managing Issues of Risks in Our Society.

SRA-Japan may be contacted through Prof. Saburo Ikeda, SRA-Japan Section, c/o Institute Socio-Economic Planning, University of Tsukuba, Tsukuba, Ibaraki 305, Japan, telephone (0298) 53-5380, fax (0298) 55-3849.

Budapest Regional Center Restructures

(Editor's Note: The following report was taken from the spring 1993 issue of *Information Bulletin*, a quarterly newsletter published by the Regional Environmental Center and distributed free to all interested parties in Central and Eastern Europe. To request a subscription, contact: James Dailey, Editor, *Information Bulletin*, Regional Environmental Center, 1035 Budapest, Miklós tér 1, Hungary, telephone 36-1 168-628 or fax 36-1 168-7851.)

The Regional Environmental Center for Central and Eastern Europe (REC), which was previewed in the second quarter 1992 issue of *RISK newsletter*, has a new strategic plan, new executive director, and new board of directors.

The center opened in September 1990 and still adheres to its original mission, which is to "address the environmental challenges common to Central and Eastern Europe by promoting ecologically sustainable development and increasing environmental awareness in the Central and East European region. Located in Budapest, Hungary, the center's target region includes Albania, Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovak Republic, and the republics of the former Yugoslavia.

In developing its new strategic plan, which was approved on April 1, 1993, the center analyzed its past performance and took into account the fol-

lowing ideas: (1) inviting more area experts to take up management positions, with western input being used in an advisory capacity; (2) introducing a policy to use local languages whenever possible while still using English as the official one; (3) becoming more active in assisting governments in identifying and addressing the key environmental problems in the region while continuing to primarily serve non-government agencies; and (4) developing a more efficient organization structure with teams and permanent positions supported by advisors. The plan divides the center into six areas: outreach, task force, clearinghouse information, grants, finance, and administration.

The new executive director of the center is Stanislaw Sinicki, a native of Poland, who was appointed by the center's board of trustees in February. He is an economist and previously was the deputy director of the Polish EcoFund Foundation, coordinating debt-for-nature swaps. In a letter to center supporters, Sinicki pledged to lead REC in becoming more representative of the region and closer to its constituents, establishing long term financial sustainability, and finding a permanent location in a more spacious facility. Sinicki takes over for Peter Hardi, the first executive director of the center, who will remain at the center as Senior Fellow until July 1993.

In March the center's charter was amended to create a seven-member

board of directors, replacing the larger board of trustees that had governed the center from its beginning. The board members are Hirohyki Ishi, editor of *Asahi Shimbun Newspaper*, Japan; Frank Loy, president of the German Marshall Fund, United States; Bedrick Moldan, director of Charles University Center for Environmental Scholarship, Czech Republic; Elena Petkova, Bulgaria; Tue Rohrsted, PHARE advisor, Commission of the European Communities, Belgium; and István Tökés, department head of the Ministry for Environment and Regional Policy, Department for International Cooperation and Information, Hungary. Moldan is the chairman of the board.

The new charter also provides for a general assembly, consisting of donors and constituents of the center—limited to 29 members—which will meet once a year to provide better regional and environmental representation, nominations for vacancies on the board of directors, and feedback on activities.

In the initial years of the center, there were many achievements: 220 projects started through a well-established and continually improving grants system, an information and clearinghouse program, a trained and dedicated staff, a newsletter (*Information Bulletin*), and four outreach offices in the region. With the restructuring of REC, hope is high for greater effectiveness in the future.

Anderson, Rall

(Continued from page 1.)

Rall received a master's degree and doctorate in pharmacology and a doctorate of medicine from Northwestern University. He has authored and co-authored approximately 170 published papers relating to comparative pharmacology, cancer chemotherapy, blood-brain barrier, pesticide toxicology, and drug research and regulation.

Anderson brings 17 years of experience in risk assessment on a regional level to the commission.

"What I can contribute to the commission is a state and regional perspective," Anderson said. "I've focused on pollution problems from food safety to ground water contamination at a local level, and I feel that community involvement and flexibility are important."

Anderson received his B.A. degree in biology from Brown University and his master's degree in public health from the University of North Carolina. He has completed his first year of predoctoral work in immunology and pathology.

Other commission members are Thorne Aughter, Barbara Bankoff, and Anthony Thompson, all appointed by former President George Bush; Gilbert Omenn and Joshua Lederberg, appointed by Speaker of the House of Representatives Thomas Foley; Virginia Weldon, appointed by House Minority Leader Robert Michel; John Doull, appointed by Senate Minority Leader Robert Dole; and Bernard Goldstein, appointed by National Academy of Sciences President Frank Press. Thompson and Goldstein are members of the Society for Risk Analysis.

New Awards Announced for Annual Meeting

For the first time, the Society for Risk Analysis is offering awards for the most scientifically meritorious presentations at its 1993 Annual Meeting in Savannah, Georgia, on December 5-8.

The first competition category is for the best poster presentation. During the meeting, an SRA committee will select one poster based on scientific rigor, creativity, and advancement of the science of risk assessment. The authors of the winning poster will receive acknowledgment of their accomplishment with an inscribed plaque and an announcement in the newsletter.

The second category is for students only. An SRA committee will grant awards of \$500 each to two students in each of the meeting's seven tracks for the highest quality papers, based on the same criteria listed above. (The deadline for student entries was June 25.)

The meeting's seven concurrent tracks are on ecological risk assessment, risk communication, engineering systems, risk characterization, exposure assessment, regulatory policy/decision, and dose response.

Other events planned include at least one symposium per track, a book exhibit, the RiskWare '93 computer software exhibit, and workshops.

Engineering Sessions Planned

The Engineering Specialty Group of SRA plans to sponsor three technical sessions at the 1993 Annual Meeting in Savannah. The sessions will focus on three topics, programmatic risk management (Chair: Kathryn Tominey, Battelle PNL, telephone (509) 375-6508, e-mail km_tominey@pnl.gov), process safety management, and aerospace risk analysis.

Potential authors or session chairpersons should contact the chair of the Engineering Specialty Group, Robert J. Mulvihill, PRC Inc., 222 N. Sepulveda Blvd., Suite 1310, El Segundo, CA 90245, telephone (310) 640-1050.

Risk Management Specialty Group Proposed

SRA member Branden Johnson has proposed a discussion on the merits of forming a new specialty group on risk management.

He invites those interested to meet with him at the 1993 Annual Meeting in Savannah. If SRA's Technical Program Committee approves the meeting for the formal agenda, a time and location will be listed in the program.

"It is striking that SRA has no forum for members to focus on issues of risk management," Johnson wrote in a letter to the *RISK newsletter*. "I invite readers to contact me with their reactions to this proposed specialty group."

Johnson said that a speech by Bernard Goldstein of the Environmental and Occupational Health Sciences Institute in Piscataway, New Jersey, was one factor that prompted his proposal. "At the last SRA meeting, Bernard Goldstein gently chided those who label themselves as students of risk management but seem to focus instead on the flaws of risk assessment. He suggested that their labors would be more fruitful if devoted to the challenges of improving risk management." A risk management specialty group could examine such issues, Johnson said.

Johnson is a researcher in the Division of Science and Research, New Jersey Department of Environmental Protection and Energy, CN 409, Trenton, NJ 08625, telephone (609) 633-2324.

"We anticipate a full roster of pre-conference workshops ranging from risk assessment and risk communication to specific technical aspects of assessing and comparing risks," said David McCallum, workshop committee chair.

President-elect Robert G. Tardiff is organizing the 1993 SRA Annual Meeting. Technical Program Commit-

tee co-chairs are Bob Hetes, telephone (919) 541-5995; Annie Jarabek, telephone (919) 541-4847; and Deborah Amaral, telephone (919) 966-6691.

The deadline to submit abstracts for presentations and submit proposals for workshops was June 25. Questions about the deadline should be addressed to Lori Strong, (703) 790-1745.

Risk Commission

(Continued from page 1.)

Because of this last delay, some in the risk community now say the commission has virtually ceased to exist before it ever even held its first meeting. "The commission is slowly dying. It is too late in the process for the group to develop any meaningful product," the Washington, D.C.-based *Clean Air Report* reported on April 22, 1993.

Although the U.S. Environmental Protection Agency is the actual administrator of the commission, the White House must give the ultimate go ahead for the commission's work to begin, said Carl Mazza of the EPA's Office of Air and Radiation in an interview with *RISK newsletter*.

"The issue of moving forward lies in the White House," Mazza said. "The

administration has the right and the responsibility to look at the membership and make changes if necessary. Having appointees re-examined when a new president comes in is fairly common. The problem is the time issue."

Because Congress mandated that the commission complete its report by May 1995, the group now has only 23 months to conduct its work.

But Mazza believes the commission still may have a chance to succeed, despite its setbacks. "My opinion is that there is still time for it to do its job," he said. "Any delays are due to the fact that the appointment process of people in the government is at a crunch point. The commission isn't absolutely dead — the proper thing to say is that this presents a challenge in getting this done."

Risk-Related Happenings

Local Officials Launch Environmental Organization

A group of local officials has announced the formation of the National Association of Local Government Environmental Professionals (NALGEP), a one-of-a-kind organization to assist those responsible for managing environmental issues on behalf of local governments. The purpose of NALGEP is to create a municipal environmental network and provide membership services, such as an annual conference, a newsletter, a hotline staffed by attorneys providing information on environmental issues, and specialized training courses.

The founding members of NALGEP and its initial co-chairpersons are John Hills, environmental services manager of the electric and water utilities for the City of Anaheim, California, and Mira Barer, director of natural resource protection for Broward County, Florida. They are assisted by a six-member, regionally diverse board of local government personnel and the Washington, D.C., law firm of Spiegel & McDiarmid.

NALGEP membership for an annual fee of \$350 is open to local government personnel with responsibility for environmental issues. For more information, contact Scott Strauss at Spiegel & McDiarmid, 1350 New York Avenue, N.W., Suite 1100, Washington, D.C. 20005, telephone (202) 879-4000, fax (202) 393-2866.

Statistical Ecology to Celebrate 25 Years in 1994

The year 1994 will mark the Silver Jubilee (25th anniversary) of Statistical Ecology, with reference to the First International Symposium on Statistical Ecology held at Yale University in 1969. The Statistical Ecology Working Group of the International Association for Ecology is planning a substantive celebration for the Sixth International Congress of Ecology, which will be held on August 20-26, 1994, in Manchester, United Kingdom.

The chairman of the National Organizing Committee is J.N.R. Jeffers of the United Kingdom, and the chairman of the International Program Committee is G.P. Patil of the United States.

Over 250 keynote and invited paper speakers will address the Silver Jubilee theme "Frontiers of Statistical Ecology and Ecological Statistics." For more information, contact G.P. Patil, Director, Center for Statistical Ecology and Environmental Statistics, Department of Statistics, Pennsylvania State University, University Park, PA 16802, telephone (814) 865-9442, e-mail GPP@PSUVM.bitnet.

Report on Toxicology Conference Available

The University of California Systemwide Toxic Substances Research and Teaching Program sponsored the conference "Toxicology and Regulatory Law" at the Asilomar Conference Center in Pacific Grove, California, in November 1992. Organized by two SRA members, William Pease of the University of California Berkeley and Lauren Zeise of the California Environmental Protection Agency, and Carl Cranor of the University of California Riverside, the purpose of the conference was to discuss the potential for over- and under-regulation in the face of scientific uncertainty, approaches to managing scientific uncertainty in the regulatory process, and recent attempts by California and federal agencies to accelerate the regulatory process.

Copies of the conference report are available from the Program office. Please contact Melissa Mardesich, Program Manager, telephone (916) 752-2099.

European College of Veterinary Toxicology

A steering committee has formed for the purpose of establishing a European College of Veterinary Toxicology. The new College would seek recognition from the European Communities' Advisory Committee of Veterinary Training to stand alongside current specialist bodies, such as the European College of Veterinary Surgery. For more information, contact Michael Chapman, B.P. 19, F-69881 JONAGE Cedex, France, fax 33 78 31 10 65.

ASTM Calls for Papers

Papers are needed for the Fourth Symposium on Environmental Toxicology and Risk Assessment: Transboundary Issues in Pollution—Air, Surface, and Groundwater. The American Society for Testing and Materials (ASTM) Committee E-47 on Biological Effects and Environmental Fate is sponsoring the symposium on April 10-12, 1994, in Montreal, Quebec, Canada. The deadline for submitting a title, abstract, and paper submittal form is August 31, 1993. To obtain a form, contact Dorothy Savini, Symposia Operations, ASTM, 1916 Race Street, Philadelphia, PA 19103-1187, telephone (215) 299-2617. Symposium chairman is Dr. Thomas W. La Point, Clemson University, P.O. Box 709, Pendleton, SC 29670, telephone (803) 646-2237, fax (803) 646-2277, e-mail LAT@CLEMSON.CLEMSON.EDU.

ABAT Examination Scheduled in September

The American Board of Applied Toxicology announces that it will provide testing for potential diplomates on September 8 and 9, 1993. Applicants must complete an extensive credentialing application. To obtain an application contact David B. Chandler, Chairman, Credentialing Committee, Oregon Poison Center, Oregon Health Sciences University, 3131 S.W. Sam Jackson Park Road, Portland, OR 97201, telephone (513) 494-7799. The deadline for returning completed applications is July 1, 1993.

SRA-Europe

(Continued from page 4.)

Plans for the Future

Tony Cox reported on his discussions during the 1992 SRA annual meeting concerning the restructuring of SRA with respect to the international sections. He suggested giving SRA-Europe members an option of two types of membership—SRA-Europe membership for one fee and full membership in both SRA and SRA-Europe for a larger fee, which would include a subscription to *Risk Analysis*. SRA-Japan already uses this method.

The topic of a *European Risk Analysis Journal* was put on the agenda of the next Committee meeting.

Finally, the candidacy of Ortwin Renn, Akademie für Technikfolgenabschätzung, Stuttgart, Germany, for chair of the SRA-Europe Fifth Annual Meeting organizing committee was unanimously accepted by the Executive Committee. The meeting will be held in Germany in 1994 or 1995.

For more information, contact Marc Poumadère, c/o SRA-Europe Secretariat, SYMLOG, B P 125, 94230 Cachan, France, telephone (33.1) 47 40 09 90, fax (33.1) 47 40 82 58.

U.S. Chapter News

Pittsburgh Chapter Studies Carpet Toxicity

The Greater Pittsburgh Chapter has held its 1993 election and the new officers are President-elect H. Gregg Claycamp, Center for Environmental and Occupational Health, University of Pittsburgh; Treasurer Paul S. Fischbeck, Department of Engineering and Public Policy, Carnegie Mellon University; and Councilor Elizabeth Ubinger, Burlington Environmental. Other officers were announced in the first quarter issue of *RISK newsletter*.

In March the chapter held a meeting which included presentations by William P. Dornsife, director, Bureau of Radiation Protection, Pennsylvania Department of Environmental Resources, and by Bernard Cohen, professor of physics, University of Pittsburgh, on "Low-Level Radioactive Waste Sites: What Are the Risks?"

In May the Chapter cosponsored a one-day symposium on "Carpet Toxicity: A Hazard Under Your Feet," with the Allegheny-Erie Society of Toxicology and the Tri-State Occupational Medical Association.

National Capital Chapter Discusses OSHA Impact

At the National Capital Area Chapter's meeting on April 27, David J. Galas, Associate Director for Health and Environmental Research at the Department of Energy, discussed the consequences involved with mapping the human genome in relation to risk assessment issues. He pointed out that identifying specific loci within animal models could lead scientists to estimate human response to toxic agents as well as predict an individual's phenotype just by looking at the genetic code.

At the chapter's May 20 meeting, Michael Gough, Program Manager, Biological and Behavioral Sciences, Office of Technology Assessment, spoke on determining the impacts of Occupational Safety and Health Administration (OSHA) regulations. Gough discussed costs of regulatory compliance and the effects of regulating productivity and innovation in the workplace.

New England Produces Video

The New England Chapter and the Boston Risk Assessment Group cosponsored a workshop on "Risk and Uncertainty in Public Policy Decisions" in April at the

Massachusetts Institute of Technology (MIT). The chapter's president, Alan Eschenroeder of Alanova Inc., led the workshop, in which over 50 participants took part in a mock town meeting hearing on the health risk assessment for a proposed regional scale (1,500 tons per day) municipal solid waste incinerator. The scenario was a small New England town which had held many prior hearings on the matter.

Following the presentation, three panelists analyzed the hearing in terms of risk communication, legal decision options, and mediation options. The panelists in each respective area were Susan Santos of Focus Group, Steven Broiles of the Environmental Law Department of Heller, Ehrman, White and McAuliffe, and Lawrence Susskind of the Department of Urban Studies and Planning, MIT.

Both the hearing and the panel discussions were recorded by professional videographers and will be available by mid-summer on VHS cassette. The cassette of the hearing costs \$70, and the panel discussion costs \$80 (Massachusetts residents add 5% sales tax). Prices for academic institutions and government agencies are \$50 and \$60 respectively. To order, send checks made payable to Alanova Inc., along with a mailing address, to Alan Eschenroeder, Alanova Inc., 76 Todd Pond Road, Lincoln, MA 01773, telephone (617) 259-0886, fax (617) 259-4460.

In May the chapter meeting focused on priority setting and the integration of research and risk analyses with talks by Dale Hattis of Clark University on "Priority Setting for Health Risk Activities: Revising the Comparative Risk Paradigm" and Russ Malcom of the U.S. Environmental Protection Agency's Narragansett Laboratory on "Integration of Research and Risk Analysis Processes."

The last meeting, held on June 9 before a summer break in chapter activities, featured Brian Murphy of Gradient Corporation discussing "Risk Assessment with Log-Normal Distributions" and Charles Menzie of Menzie-Cura Associates Inc., who addressed "The Similarities and Differences Between Human Health and Ecological Risk Assessment."

The 1993-94 chapter officers are President Alan Eschenroeder; President-elect Wendy Koch of TRC Environmental Corporation; Secretary Margaret Round of NESCAUM; and Treasurer Yee Cho of CDW Consultants Inc.

Northern California Cosponsors Annual Toxicology Meeting

Immunotoxicology was the topic of the annual spring meeting cosponsored by SRA's Northern California Chapter, the Northern California Chapter of the Society of Toxicology, and the Genetic and Environmental Toxicology Association of Northern California. The meeting was held on June 2 at the Sheraton Hotel and Conference Center in Concord, California, with an agenda of symposia, platform and poster sessions, and an awards presentation. Awards of \$100 each were given for the best platform or poster presentation in the categories of student, bachelor/master of science, and postdoctoral.

The symposia speakers and the topics they presented include Reina Mebuis of Stanford University, how the immune system works: homing and migration of lymphocytes; Yvonne Freund of SRI International, immune response in the brain; Kathleen Rodgers of the University of Southern California, immunotoxicology overview and an evaluation of malathion; Mike Taylor of Syntex, regulatory aspects of immunotoxicology; and Howard Maibach of the University of California, San Francisco, immunomodulation by metals.

SRA President Wilson Visits Ohio Chapter

The first meeting in 1993 of the Ohio Chapter began with a tour of the U.S. Environmental Protection Agency (EPA) facilities in Cincinnati. Several of the labs participated in poster presentations relating to risk assessment. Afterward, the chapter met for dinner at the University of Cincinnati Faculty Club, and SRA President Jim Wilson spoke on the history of SRA, the future direction of the society, and the percent composition of the membership by areas of interest. Wilson said that as involvement by SRA members in Europe and Japan continues to increase, the focus of the society will increasingly be global in nature. Deborah Gray of Metcalf and Eddy, with the help of chapter councilor Bert Hakkinen of Procter & Gamble, organized the meeting.

The chapter met in May at the Frederick A. White Health Center on the campus of Wright State University, with Robert Koerker of the Department of Pharmacology and Toxicology hosting the event. The meeting agenda focused on current developments in the use of biomarkers for

ecological and human health risk assessments. Speakers included Pam Kloepper-Sams of Procter & Gamble, Susan Cormier of the EPA/EMRD, David Warshawsky of the University of Cincinnati, and Steve Channel of Armstrong Laboratory, Wright Patterson Air Force Base.

Several chapter members are developing a review article for *Risk Analysis* that will summarize RiskWare '92, the exhibition of risk analysis-related software and databases held during the SRA Annual Meeting in San Diego, and will include information about the software and databases exhibited during RiskWare '90 and '91. Contributing to the project are Treasurer Steve Lutkenhoff, Councilor Richard Hertzberg, and Patricia Daunt, all with EPA; Councilor Ron Marnicio of Ebasco Environmental; and Bert Hakkinen.

Finally, a detailed summary of the chapter's October 23, 1992, meeting on "Municipal Solid Waste Composting: State-of-the Science and State of Assessing Potential Health Risks," written by Bert Hakkinen and President-elect Jon Reid of the University of Cincinnati, is available on request. To receive a copy, contact Secretary Hallie Serazin, Ebasco Environmental, 4995 Bradenton Avenue, Suite 130, Dublin, Ohio 43017-2546, telephone (614) 761-2010, fax (614) 761-2116.

Research Triangle Launches Voice Mailbox

The Research Triangle Chapter, which is now 50 members strong, is utilizing several ways to communicate with its members and others who are interested in the chapter's activities. The chapter mails a notice for each of its meetings in the form of a flyer, which the members are encouraged to post where they work, and publishes a biannual newsletter. Now the chapter also has a voice mailbox that can be contacted for chapter information: (919) 541-7183, extension 44.

The chapter's 1993 schedule of monthly meetings continued through May. In March, Daniel Costa of the Pulmonary Toxicology Branch of the Health Effects Research Laboratory, EPA, spoke on "The Toxic Carpet Caper: The Intersection of Science, Alchemy, and Politics." He described the reasons that the EPA was affected by political controversy which was stimulated when a private consulting lab recently distributed information derived from a standardized mouse irritant bioassay (ASTM 981E), suggesting that carpet constructed with latex backing is potentially a

health hazard. His presentation focused on the controversy and the associated studies which were done by the Health Effects Research Laboratory. The annual chapter business meeting followed the program.

The topic of the April meeting was "Research to Improve Health Risk Assessment: Are We Getting Anywhere?", presented by John Vandenberg of the Research

to Improve Health Risk Assessments Program, Health Effects Research Laboratory, EPA.

Chapter President Julie Kimball and Matt Godo of the Chemical Industry Institute of Toxicology (CIIT), Research Triangle Park, presented the program at the May meeting on "The Role of Airflow in Nasal Dosimetry and Application to Human Health Risk Assessment." They provided an overview of CIIT research on this subject and described the role of research in the extrapolation of animal data to people and the assessment of human health risks.

During the summer months the chapter will be planning its annual fall workshop. The topic chosen for the 1993 workshop is exposure assessment. Chapter councilor Annie Jarabek of the EPA Environmental Criteria and Assessment Office, telephone (919) 541-4847, is chairing the workshop committee.

Southern California Hosts Annual Workshop

The sixth annual workshop of the Southern California Chapter was held on May 5 at the Ralph M. Parsons Company Auditorium in Pasadena, California. The workshop provided an overview of two regulatory requirements: (1) the February 24, 1992, rule on process safety management of highly hazardous chemicals, which was issued by the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) and applies to all indus-

U.S. Chapter Contacts

Columbia-Cascades: Jim Dukelow (president), (509) 376-7074.

East Tennessee: Joe Minarick (president), (615) 481-2117.

Greater Pittsburgh: Vincent Arena (president), (412) 624-3023.

Lone Star: Ben Thomas (president), (713) 520-9900.

Metropolitan: Miriam de Salegui (president), (212) 749-7961.

Michigan: Doug Kononen (president), (313) 986-1351.

National Capital Area: Rebecca Klemm (secretary),

(202) 667-5244.

New England: Alan Eschenroeder (president), (617) 259-0886.

Northern California: Tom McKone (secretary), (510) 422-7535.

Ohio: Mike Dourson (president), (513) 569-7533.

Philadelphia: Eileen Mahoney (president), (215) 242-4388.

Research Triangle: Julie Kimball (president), (919) 541-2070

(ext. 364).

Rocky Mountain: Ralph Grover (president), (303) 450-0005.

Southern California: Robert Mulvihill (president), (310) 640-1050.

tries handling specified amounts of one or more of 128 chemicals listed or 5 tons or more of flammable liquids or gases at one location, and (2) regulations related to the OSHA rule which the EPA is expected to issue within one year. The principal requirement of the OSHA regulation is the performance of a process hazard analysis, while the EPA regulations will require the preparation of a Risk Management Plan. The chapter workshop also provided guidance on the performance and development of these new safety programs.

Fifty representatives of industry, California enforcement agencies, consulting firms, and University of Southern California (USC) students attended the workshop. The principal lecturers were Southern California Chapter President Robert Mulvihill of PRC Inc., Krishna Nand and Bruno Loran of Ralph M. Parsons/Engineering Sciences, Najm Meshkati of USC Institute of Safety and Systems Management, Southern California Chapter President-elect Mardy Kazarians of Kazarians & Associates, and Mark Theriault of the Torrance Mobil Refinery. The panel session closing the workshop indicated that the content had been informative.

Elections for the chapter offices of president-elect, secretary, treasurer, and three councilor openings will be held this summer. Nominations should be sent to Secretary Doug Orvis, Accident Prevention Group, 16980 Via Tazon, Suite 110, San Diego, California 92127, telephone (619) 592-0189, fax (619) 592-0586.

Calendar of Events

August 16-20. GORDON RESEARCH CONFERENCE ON THE BARRIER PROPERTIES OF MAMMALIAN SKIN, Plymouth State College, Plymouth, NH. Contact Dr. Gordon L. Flynn, The University of Michigan, College of Pharmacy, Ann Arbor, MI 48109-1065, telephone (313) 764-2441, fax (313) 763-2022.

September 14-19. BIOLOGY OF MOLECULAR CHAPERONES, Canterbury, Kent, United Kingdom. Deadline for application is three months before conference. Contact Josip Hendekovic, European Science Foundation, 1 quai Lezay-Marnesia, 67080 Strasbourg Cedex, France, telephone (33) 88 76 71 35, fax (33) 88 36 69 87.

September 18-23. DRUGS AND G-PROTEINS, Castelvecchio Pascoli, Lucca, Italy. Contact Dr. Josip Hendekovic (see previous calendar item).

September 20-23. CONTAMINATED SOILS: ANALYSIS, FATE, ENVIRONMENTAL AND PUBLIC HEALTH EFFECTS, AND REMEDIATION (8th National Conference), University of Massachusetts at Amherst. Contact Paul Kostecki or Linda Rosen, Division of Public Health, University of Massachusetts, Amherst, MA 01003, telephone (413) 545-2934, fax (413) 545-4692. For information on exhibit booths contact Diane Burns, telephone (413) 545-2591.

October 18-20. FOURTH ANNUAL CONFERENCE OF SRA-EUROPE, Rome, Italy. Contact Dr. Paolo Vestrucci, N.I.E.R., Via S. Stefano 16, 40125 Bologna, Italy, telephone 39.51.239728, fax 39.51.227824.

October 22-27. GENETICS AND STRUCTURES OF ANIMAL VIRUSES, Mont Sainte-Odile, France. Contact Josip Hendekovic (see September 14 above).

October 23-28. MOLECULAR BIOLOGY OF CELLULAR INTERACTIONS: ADHESION MOLECULES, San Feliu de Guixols, Spain. Contact Josip Hendekovic (see September 14 above).

October 25-30. CITY '93 - GLOBAL AND EUROPEAN FORUM ON URBAN PROBLEMS, URBAN ENVIRONMENT, AND HEALTH IN

CITIES, and EPH '93 - FIRST GLOBAL AND EUROPEAN CONFERENCE ON ENVIRONMENT AND PUBLIC HEALTH IN MODERN SOCIETY, Antwerp, Belgium. Contact Conference Secretariat, The Society for Research and Environment and Health, c/o Community Health Services, Uitbreidingsstaat 506, B - 2600 Anwerpen, Belgium, telephone (323) 230 92 32, fax (323) 230 16 44.

November 1-4. FIRST ANNUAL HEALTH EFFECTS RESEARCH LABORATORY SYMPOSIUM - BIOLOGICAL MECHANISMS AND QUANTITATIVE RISK ASSESSMENT, Research Triangle Park, NC. Contact Research and Evaluation Associates, Inc., 100 Europa Drive, Suite 590, Chapel Hill, NC 27514, telephone (919) 968-4961, fax (919) 967-4098.

November 12-16. THE OXYGEN SOCIETY ANNUAL MEETING, Charleston, SC. Contact The Oxygen Society, 8000 Westpark Drive, Suite 130, McLean, VA 22102, telephone (703) 790-1745, fax (703) 790-9063.

November 24-26. INTERNATIONAL SCIENTIFIC CONFERENCE ON INDOOR AIR QUALITY PROBLEMS - FROM SCIENCE TO PRACTICE, Warsaw, Poland. Contact Jerzy Sowa, Director of the Secretariat, International Scientific Conference, Institute of Heating and Ventilating, Warsaw University of Technology, Nowowiejska St 20, Pl-00-653 Warsaw, Poland, telephone (48-22) 214754, fax (48-22) 252992.

November 26-30. INHERITED DISORDERS AND THEIR GENES IN DIFFERENT EUROPEAN POPULATIONS, Obernai, France. Contact Josip Hendekovic (see September 14 above).

November 25-26. FIFTH ANNUAL MEETING AND SYMPOSIUM OF SRA-JAPAN, Tokyo. (See story on page 4.)

December 5-8. 1993 ANNUAL MEETING OF THE SOCIETY FOR RISK ANALYSIS, Savannah, Georgia. (See story on page 6.)

Risk Courses

April-December. SEMINARS AND COURSES by THE NATIONAL ACADEMY FOR ASSESSMENTS, Atlanta, Georgia. Many topics, including "Collaborative Writing for Assessment Reports," "Hazardous Materials and Waste Spill Control," and "Occupational Safety and Health Administration (OSHA) Regulations." Contact The National Academy for Assessments, 6065 Roswell Road Northeast, Suite 1399, Atlanta, GA 30328, telephone (404) 847-0660, fax (404) 847-0979.

July 12-16 (Part 1) and July 19-23 (Part 2). NUCLEAR POWER REACTOR SAFETY PARTS ONE: THERMAL POWER REACTORS and TWO: GENERAL SAFETY ISSUES, Massachusetts Institute of Technology, Cambridge, Massachusetts. Contact MIT Office of the Summer Session, Room E19-356, Cambridge, MA 02139-4307, telephone (617) 253-2101, fax (617) 253-8042.

July 26-30. SECOND SUMMER INSTITUTE IN ENVIRONMENTAL LAW, New York University, Robert F. Wagner Graduate School of Public Service, Center for Management, New York, New York. Contact Professor R. Zimmerman, Robert F. Wagner Graduate School of Public Service, New York University, 4 Washington Square North, New York, NY 10003, telephone (212) 998-7432.

August 2-13. POSTGRADUATE COURSE IN ENVIRONMENTAL EPIDEMIOLOGY, University of Basel, Switzerland, (in English). For information, contact Professor H. E. Wichmann, Bergische Universität Wuppertal, Fachgebiet Arbeitssicherheit und Umweltmedizin, Gaußstraße 20, D-5600 Wuppertal 1, Deutschland.

August 9-13 (Course 1), August 23-27 (Course 2), August 30-September 2 (Course 3). SAFETY ANALYSIS & RISK ASSESSMENT FOR CHEMICAL PROCESS INDUSTRY PRACTITIONERS, Stouffer Madi-

son Hotel, Seattle, Washington. Contact registrar at American Institute of Chemical Engineers, Continuing Education Department, 345 East 47th Street, New York, NY 10017, telephone (212) 705-7526.

August 11-13. RISK ASSESSMENT IN THE CHEMICAL INDUSTRY, Stouffer Madison Hotel, Seattle, WA (see August 9 above).

August 16-20. ADVANCED WORKSHOP ON OCCUPATIONAL & ENVIRONMENTAL RADIATION PROTECTION, Harvard School of Public Health, Boston, Massachusetts. Contact Mary F. McPeak, Office of Continuing Education, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115, telephone (617) 432-1171.

September 13, 1993 - June 3, 1994. MANAGEMENT OF SAFETY, HEALTH AND ENVIRONMENT - RISK ASSESSMENT AND CONTROL, Delft University of Technology, The Netherlands. Contact Foundation TopTech Studies, P.O. 612, 2600 AP Delft, the Netherlands, telephone (31-15) 788019, fax (31-15) 781009.

September 28-October 1. RISK: SCIENCE, ASSESSMENT AND MANAGEMENT, Harvard School of Public Health, Boston, MA (see August 16 above).

November 1-5 (Course 1), November 15-19 (Course 2), November 29-December 2 (Course 3). SAFETY ANALYSIS & RISK ASSESSMENT FOR CHEMICAL PROCESS INDUSTRY PRACTITIONERS, Stouffer Concourse Hotel, St. Louis, MO (see August 9 above).

November 3-5. RISK ASSESSMENT IN THE CHEMICAL INDUSTRY, Stouffer Concourse Hotel, St. Louis, MO (see August 9 above).

November 8-9. PHARMACOKINETICS AND RISK ASSESSMENT, Stouffer Concourse Hotel, St. Louis, MO (see August 9 above).

Advertisements

Chemist/Toxicologist

Ebasco Environmental, the full service environmental engineering, consulting and remediation division of Ebasco Services Incorporated, currently has an outstanding opportunity available in our Langhorne, PA, office for a chemist/toxicologist.

The successful candidate should be able to supervise and perform validation of laboratory data, perform quantitative risk assessments, assess the environmental fate and transport of contaminants and assist in the preparation of work plans and QA/QC plans. This position requires 2-5 years experience as a toxicologist/chemist, including experience in risk assessment and a background in analytical and environmental chemistry. A bachelor's degree is required; advanced degree would be a plus. Good writing skills are essential.

We offer excellent growth opportunities and potential for advancement, as well as a competitive salary and a comprehensive benefits package. Please send resume, including salary requirements, to: Teresa Vangeli, Ebasco Services Incorporated, Suite 200, One Oxford Valley, Langhorne, PA 19047

An Equal Opportunity Employer M/F/D/V

Risk Assessment Professionals

ICF Kaiser Engineers, one of the nation's leading environmental science and engineering consulting firms, is widely recognized for its excellence in the domestic and international hazardous waste management field. Immediate opportunities are currently available in our **Fairfax, VA**; **Abingdon, MD**; and **Oakland, CA**, offices for the following professionals:

Risk Assessment Practice Manager — Responsible for managing an established risk assessment practice made up of a uniquely qualified staff of environmental scientists, and servicing a broad clientele of government and industry clients. Qualifications include: MS or PhD in environmental science, chemistry, environmental engineering, or a related field; minimum of 10 years of relevant consulting experience; proven business development capabilities; excellent oral and written communication skills; and strong interpersonal skills. Additionally, must possess technical expertise in one or more of the following areas: exposure assessment, fate and transport, ecological and human health risk assessment, and regulatory compliance. Location: Fairfax, VA.

Project Managers — Contribute technical expertise and project management abilities to a variety of ecological and human health risk assessment efforts. Qualifications include: MS or PhD in environmental science, chemistry, environmental engineering, or a related field; 5-7 years of environmental consulting experience in the areas of risk assessment, fate and transport, and exposure assessment; and excellent oral and written communication skills. Previous field experience a plus. Business development abilities preferred. Location: Fairfax, VA, or Abingdon, MD.

Junior and Mid-Level Engineers and Scientists — Provide technical assistance to a wide range of risk assessment projects. Qualifications include: BS in environmental science, chemistry, environmental engineering, or a related field; minimum of 1 year relevant risk assessment experience; strong IBM PC skills; and excellent oral and written communication skills. Modeling capabilities highly valued. Location: Oakland, CA.

ICF Kaiser Engineers offers competitive salaries and excellent benefits. If one of these challenging opportunities appeals to you, please send your resume to:

ICF Kaiser Engineers Inc.
Personnel — CH
P.O. Box 2606
Fairfax, VA 22031-1207

An Equal Opportunity Employer

BIOLOGICAL MECHANISMS AND QUANTITATIVE RISK ASSESSMENT

The Health Effects Research Laboratory of the U.S. Environmental Protection Agency is pleased to announce that its first annual symposium will be held November 1-4, 1993, at the Sheraton Imperial Hotel & Convention Center in the Research Triangle Park, North Carolina. The Symposium will focus on the role of biological-mechanisms research in future risk assessment strategies. The role of mathematical models of biological systems in integrating research activities and reducing uncertainties in the risk assessment process will be discussed. An opportunity will be provided for presenting posters on topics related to the theme of the Symposium. For more information on the Symposium or for submission of abstracts, please contact:

HERL Symposium Coordinator
Research and Evaluation Associates, Inc.
100 Europa Drive, Suite 590
Chapel Hill, North Carolina 27514
(919) 968-4961
(919) 967-4098 (FAX)



Member News

Elizabeth L. Anderson has been appointed president and CEO of Sciences International Inc. Her new address at the corporate headquarters is Potomac Tower, 1001 19th Street North, Suite 1500, Arlington, Virginia 22209-1722, telephone (703) 812-2100, fax (703) 812-2119.

Paul Slovic of Decision Research in Eugene, Oregon, has been re-elected to membership in the National Council on Radiation Protection and Measurements.

Richard Sugatt is now associated with Normandeau Associates, 25 Nashua Road, Bedford, New Hampshire 03110, telephone (603) 472-5191, fax (603) 472-7052.



RISK newsletter
is published by
The Society for
Risk Analysis

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

Society Officers:

James D. Wilson, *President*, 1992-93
Robert G. Tardiff, *President-elect*, 1992-93
Vlasta Molak, *Secretary*, 1991-93
Raymond F. Boykin, *Treasurer*, 1991-94
D. Warner North, *Past President*, 1992-93

Members of SRA Council:

Ann N. Fisher, 1993
Saburo Ikeda, 1993
David B. McCallum, 1993
Donald G. Barnes, 1994
John D. Graham, 1994
Rae Zimmerman, 1994
Vicki M. Bier, 1995
Thomas A. Burke, 1995
Ray Kemp, 1995

Secretariat: Richard J. Burk Jr., Executive Secretary, Society for Risk Analysis, 8000 Westpark Drive, Suite 130, McLean, VA 22102, telephone (703) 790-1745, fax (703) 790-9063.

Publications Chairman: D. Warner North, Decision Focus Incorporated, 650 Castro Street, Suite 300, Mountain View, CA 94041-2055, telephone (415) 960-3923, fax (415) 960-3656, e-mail: wnorth@leland.stanford.edu.

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
Telephones: (615) 927-4640, (615) 689-5315 (Res.)

EPA

(Continued from page 5.)

has world leadership, is a mid-level agency. They wonder if the U.S. is serious or not about the environment.

"Under (William) Reilly, when the agency went to international meetings where people sat in structured seating arrangements, Mr. Reilly never had the prestige of his foreign counterparts. In France, for example, there is a Ministry of the Environment. When Reilly would go over to France with the U.S. Secretary of State, it was Secretary of State Baker, and then Mr. Reilly, at a mid-level appointment."

—**Donald Barnes**, *Science Advisory Board, EPA, and SRA Councilor*

"The amount of money being spent annually by the business community, states, and cities to be in accordance with EPA regulations now exceeds \$100 billion. As Sen. (Patrick) Moynihan said, with this much money there should be a systematic methodology for working to improve risk analysis to assure that the funds are well spent.

"Having the environmental agency as a member of the Cabinet would make it responsible for national policy, for dealing with the business community, for dealing with the competitive issue. For that reason I am in favor of seeing it move up."

—**Robert Barnard**, *Counsel, American Industrial Health Council*

"The question is not whether to create a department on the environment, but when. The answer is now. It is time for a department on the environment to function as a permanent and equal partner in the President's Cabinet. (This) will ensure that the environment is fully engaged and integrated into the President's decisions on national issues."

—**Carol Browner**, *Administrator of EPA*

SOCIETY FOR RISK ANALYSIS
8000 Westpark Drive, Suite 130
McLean, VA 22102

Bulk Rate
U.S. Postage
PAID
Permit No. 309
Knoxville, TN