

# RISK *newsletter*

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## Chapter Activities Reflect Diverse Interests

The results of a recent poll by *RISK newsletter* staff of the Society's 12 chapters confirm the diversity of activities of the Society and frequently reveal a focus on regional interests. Chapter programming varies from relatively informal monthly or quarterly meetings to highly structured events, the latter usually designed to attract public interest. Some chapters also sponsor annual workshops for risk specialists.

### Call for Nominations for the Honor of Fellow

The SRA Council has established a new level of membership, that of Fellow of the Society for Risk Analysis, to recognize and honor members who have compiled a professional record marked by significant contributions to one or more of the disciplines served by the Society. Such contributions may be evidenced by (a) recognized original research or invention, including work in policy areas; (b) technical or scientific leadership in an enterprise of significant scope that involves risk analysis in a significant way; or (c) superior teaching or contributions to improve education and to promote the use of risk analysis which are widely recognized by peers and students. Nominees must have been members of the Society for at least five years and must now be members in good standing. Only a restricted number of recognitions will be made in any year.

Nominations are to be made on a standard form by three members of the Society who must be broadly dispersed geographically and of whom, at most, one should normally be from the home institution of the candidate. Forms may be obtained by contacting the office of the Executive Secretary of the SRA (see Secretariat's address in newsletter masthead).

Completed forms should be sent to the Awards Committee for consideration to arrive no later than June 30, 1990, by forwarding them to the Chairman of the Awards Committee:

Paul F. Deisler, Jr.  
11215 Wilding Lane  
Houston, Texas 77024

Several examples of chapter activities can be cited. The Greater Pittsburgh Chapter, SRA's newest, recently joined with the Greater Pittsburgh Chamber of Commerce and the state's Allegheny County to present a conference on "Air Quality and Environmental Risk: Assessment and Management." Similarly, in the past the Northern California Chapter has cosponsored, with the California Academy of Sciences, a symposium on toxics in the California environment; and the Lone Star Chapter, together with local chapters of the Air Pollution Control Association and the American Industrial Hygiene Association, has cosponsored a symposium on setting air toxics standards in Texas.

The East Tennessee Chapter has the record on workshops, sponsoring its seventh annual Risk Analysis Methods Day on June 7. Also on June 7, the Southern California Chapter will be holding its third annual workshop. In addition, the Southern California Chapter will be the host of a 1991 SRA-sponsored international conference on probabilistic safety assessment and management.

In order to provide SRA's membership at large with a 1990 snapshot of chapter activities, and to

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# 1990 SRA Annual Meeting to Have 80+ Sessions

"It has been overwhelming!" says Annual Meeting Committee Chairman Curtis C. Travis in describing the response to the Call for Papers for SRA's 1990 Annual Meeting. The meeting, which will be held October 7-10 at the Intercontinental Hotel in New Orleans, will feature more than 80 different sessions plus a half-day short course. Approximately one-half of the sessions will be special sessions, whose titles and organizers are listed below:

- Setting Sediment Quality Standards for Ecological Risk Assessment  
*Charles Menzie, Chelmsford, MA*
- Uncertainty and Decision Analysis for Ecological Risk  
*Rufus Morison, Alexandria, VA*
- Maximum Exposed Individual  
*Paul Price, American Petroleum Institute, Washington, DC*
- Global Climate Issues  
*Lester Lave, Carnegie-Mellon University, Pittsburgh, PA*
- Medical Waste  
*Maureen Lichtveld, Agency for Toxic Substances and Disease Registry, Atlanta, GA*
- Medical Decision Making  
*Cheryl Travis, University of Tennessee, Knoxville, TN*
- Chemical Mixtures  
*Richard C. Hertzberg, U.S. Environmental Protection Agency, Cincinnati, OH*
- Risk Assessment of Environmental Tobacco Smoke  
*Maxwell Layard, Alameda, CA*
- Setting Drinking Water Standards  
*Edward V. Ohanian, U.S. Environmental Protection Agency, Washington, DC*
- Health Effects of Global Warming  
*Clay Easterly, Oak Ridge National Laboratory, Oak Ridge, TN*
- Multimedia Modeling  
*Thomas McKone, Lawrence Livermore National Laboratory, Livermore, CA*
- Chaos and Risk Analysis  
*Jerry Chandler, National Institutes of Health, Bethesda, MD*
- Halogenated Solvents  
*Bruce Allen, Clement Associates, Ruston, LA*
- Sensitive Subpopulations  
*Lauren Zeise, Department of Health and Human Services, Berkeley, CA*
- Mixed Waste  
*Fritz Seiler, International Technology, Albuquerque, NM*
- Health Effects of Dioxin  
*William F. Greenlee, Chemical Industry Institute of Toxicology, Research Triangle Park, NC*
- Biomarkers of Inhalation Exposure  
*Robert Orth, Monsanto Corporation, St. Louis, MO*
- Risks Associated with Field Applications of Genetically Engineered Microorganisms (GEMS)  
*Holly Hattemer-Frey, Advanced Sciences, Inc., Oak Ridge, TN*
- Risk Communication Roundtable  
*Ann Fisher, EPA, Washington, DC*
- Current Experience in Environmental Risk Analysis Related to Remedial Actions at DOE Facilities  
*Steve Bartell, Oak Ridge National Laboratory, Oak Ridge, TN*
- Organizational Factors in Risk  
*Lee Clarke, Rutgers University, New Brunswick, NJ*
- Community Involvement  
*David Conn, Blacksburg, VA*
- Life Support Systems  
*Hatice Cullingford, NASA, Houston, TX*
- General Quantitative Noncancer Risk Assessment: State of the Art  
*Michael L. Dourson, EPA, Washington, DC*
- Ethics  
*Mary English, University of Tennessee, Knoxville, TN*
- Accident Management  
*Mario H. Fontana, Tenera Corporation, Knoxville, TN*
- New Directions in Risk Perception  
*William Freudenberg, University of Wisconsin, Madison, WI*
- Innovative Methods in Toxicology  
*Michael Gallo, UMDNJ, Piscataway, NJ*
- Theory and Approaches to Ecological Risk Analysis  
*Steve Hildebrand, Oak Ridge National Laboratory, Oak Ridge, TN*
- Prospects for Upgrading Emergency Planning at Operating Nuclear Power Plants: TMI As a Test Case  
*R. Kasperson, Clark University, Worcester, MA*
- Siting of Hazardous Facilities  
*Howard Kunreuther, University of Pennsylvania, Philadelphia, PA*
- Major Uncertainties in Environmental Exposure Assessment  
*Ross MacDonald, Shell Oil Company, Houston, TX*
- Quantitative Risk Assessment of Non-Cancer Endpoints  
*Don Mattison, University of Arkansas, Little Rock, AR*
- SARA Title 3  
*Vlasta Molak, Bio-Technology Forum, Inc., Cincinnati, OH*
- International Role of Risk Analysis  
*Vlasta Molak, Bio-Technology Forum, Inc., Cincinnati, OH*
- Effluent Fees to Reduce Waste  
*Alan Pulsipher, Louisiana State University, Baton Rouge, LA*
- Improving Risk Characterization  
*Joe Rodricks, ENVIRON, Arlington, VA*
- Biomarkers of Environmental and Ecological Contamination  
*Lee Shugart, Oak Ridge National Laboratory, Oak Ridge, TN*
- Clean Air  
*Wilbur A. Steger, Consad Research Corporation, Pittsburgh, PA*
- Fungicides in Agriculture  
*James Wilson, Monsanto, St. Louis, MO*
- Safety at Chemical Plants  
*Gary Verholek, Tenera Corporation, Knoxville, TN*

In an attempt to upgrade the proceedings of the SRA Annual Meeting, the Council is inviting presenters at the 1990 meeting to submit their papers to the Society's journal, *Risk Analysis*. Papers will not be published in a separate proceedings volume for the meeting.

**Note:** Plenum Publishers reports that the proceedings for the 1986 SRA meeting held in Boston will be available in late July. Camera-ready pages for the 1989 meeting should be submitted to Plenum by August.

## Short Course Scheduled for Annual Meeting

The opening event for SRA's 1990 Annual Meeting will be a half-day short course entitled "Biologically Based Risk Analysis of Chemical Carcinogens," which will be conducted Sunday afternoon, October 7, 1-5 PM, at the Intercontinental Hotel in New Orleans. The instructors will be Louis A. Cox, Jr., U.S. West Advanced Technologies and Cox Associates, Denver, Colorado, and James Wilson, Monsanto Company, St. Louis, Missouri.

The course will be self-contained, with relevant cancer biology and risk modeling methods introduced as needed. Recent case studies will be used to illustrate both the real applicability and the remaining limitations of biologically based approaches. The course will cover the following modules:

1. **Historical Overview.** Summarizes the evolution of biologically based risk modeling as a response to the widening gap between statistical cancer risk models and the rapidly emerging understanding of cancer biology.
2. **The Statistical Risk Modeling Paradigm.** Reviews Armitage-Doll and Linearized Multistage (LMS) models; identifies limitations of these and other statistical risk models; presents example assessments for benzene and butadiene.
3. **PB-PK Modeling.** Outlines classical and modern compartmental flow modeling methodology and data analysis techniques; gives

practical shortcuts for approximating internal doses; reviews Ramsey-Anderson style modeling; presents case studies.

4. **Cell Kinetics and Cytotoxicity Modeling.** Discusses roles of cell kinetics and cell proliferation in carcinogenesis; introduces cell kinetics simulation models and recent approaches to modeling cell population dynamics.
5. **Stochastic Modeling of Cancer Induction.** Describes recent two-stage stochastic models of carcinogenesis (MVK framework and extensions). Data needs and potential contributions of models are evaluated.
6. **Modeling the Latency Period and Tumor Growth and Progression.** Relates predictions of biologically based cancer induction models to observable epidemiological and bioassay data.
7. **Current Availability of Software and Data.** Deals with practical implementation issues for PB-PK, cell kinetics, two-stage stochastic induction, and latency period modeling.
8. **Assessing the Biologically Based Paradigm.** Summarizes lessons, challenges, and experiences to date with biologically based risk assessment as a practical tool for alternative risk assessments in the context of regulatory risk assessment and management.

A preregistration form for this short course, which will cost \$75, will be included in the annual meeting preliminary program to be mailed to SRA members. For further information on the course, contact L. A. Cox, Jr., Phone 303-889-6025.

## SRA Offers Assistance to EPA in Environmental Technology Transfers

SRA's international coordinator, Vlasta Molak, appeared before the April 5 Washington meeting of the newly formed International Environmental Technology Transfer Advisory Board (IETTAB) to offer the Society's assistance to the Board. Organized by the Environmental Protection Agency last fall on instructions from President Bush, the IETTAB is charged with advising and consulting with EPA Administrator William Reilly on how best to help developing countries and centrally planned economies curtail and/or avoid the creation of pollution as they become more industrialized.

Chaired by William D. Ruckelshaus, ex-EPA administrator and currently chairman of the board of Browning Ferris Industries, the Board consists of 16 members from industry, government, and academia appointed

for two-year terms by Alan Hecht, EPA's deputy assistant administrator for international activities. The Board's executive secretary is Mark Kasman, Office of International Activities, EPA (202-475-7424). The Board will meet four times per year, with the remaining 1990 meetings scheduled for September 6, October 4, and December 6.

In her presentation to IETTAB, Molak suggested that SRA sections established in the countries could serve as focal points for the dissemination of knowledge and the development of modified risk assessment techniques adapted to particular local conditions. Also, SRA sections could assist their countries' decision makers in assessing the impact of development on the environment and in introducing environmental technologies concurrently with technological development.

Molak says new sections can be initiated in the countries by current SRA members traveling to those countries to give courses on the basics of risk analysis, providing financial arrangements could be made. Individual SRA members have already established contacts with professionals in many of the countries and therefore could serve as valuable liaisons for the Board.

The Board's goals include providing assessments of the following: (1) the environmental technologies needed by developing and centrally planned countries; (2) the legal, institutional, and economic barriers to the transfer of environmental technology to such countries; (3) the need for assistance in developing appropriate environmental technology for such countries; and (4) the market opportunities for U.S. suppliers in connection with such technology transfer.

## SRA Miniforum on Asbestos Held

The second miniforum sponsored by the SRA Conferences and Workshop Committee was on "Risk of Indoor (Asbestos) Building Materials," which addressed the indoor air risks associated with the use of asbestos-containing building materials and covered the measuring, quantifying, evaluating, and regulating of these risks to human health. Held on May 7-8 in Washington, D.C., the forum was attended by lawyers and representatives from construction management, state and federal government, and industry. The seven lectures were presented on "Asbestos Risk Management Approaches" by Patrick N. Breyse of Johns Hopkins University School of Hygiene and Public Health; "Risks Associated with Abatement Activities" by Paul C. Chrostowski of Clement Associates, Inc.; "Risk Analysis/Risk Management: A Regulatory Perspective" by Charles L. Elkins of the U.S. Environmental Protection Agency; "Mechanisms of Asbestos Interaction with Target Cells of Disease" by Brooke Mossman of the University of Vermont College of Medicine; "The Analytical Challenges of Asbestos Risk Assessment" by Ian M. Stewart of RJ Lee Group, Inc.; and "Health Risk Assessment Approaches for Asbestos" by Peter Voytek of Clement Associates, Inc. Lively discussions followed each lecture. Past SRA president Elizabeth L. Anderson of Clement Associates, Inc. spoke at the Monday evening banquet.

Lecture notes are available for a fee. Please contact Kristi Jacobs at phone number 703-790-1745 for more information.

## American Chemical Society Schedules Risk Sessions

The risk community will be particularly interested in the program of the American Chemical Society's Division of Chemical Health and Safety at the society's 200th national meeting to be held in the Washington Convention Center August 26-31. Dan Marsick, U.S. Department of Labor, Occupational Safety and Health Administration, will be the program chairman.

Two symposia on radiation, to be held on Tuesday, August 28, will include papers on risk assessment, and a general session on the morning of Wednesday, August 29, will be devoted to "Right-to-Know and Risk Communication." A symposium on "Uncertainty in Risk Assessment" will be held Wednesday afternoon, and an all-day symposium on "Risk Assessment--Past, Present and Future Challenges" will be conducted on Thursday, August 30.

For general information about the annual meeting, contact the American Chemical Society's Department of Meetings and Divisional Activities at 202-872-4396.

## Society Updates and Corrections

The 1989-90 chair for SRA's publicity Committee is Hatice Cullingford of the National Aeronautics and Space Administration. She may be contacted at 404 Oak Harbor Drive, Houston, Texas 77062 (Phone 713-483-8402).

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The current address of SRA councilor and Liaison Committee chair James D. Wilson is Monsanto Company, 800 N. Lindbergh Boulevard, St. Louis, Missouri 63167 (Phone 314-694-8879; FAX 314-694-6858).

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The SRA liaison for the American Public Health Organization is Linda-Jo Schierow, Center for Technology, Policy and Industrial Development (E40-233), Massachusetts Institute of Technology, Cambridge, Massachusetts 02139 (Phone 617-253-8621).

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SRA currently has 1,847 members, 1,561 in the U.S. and 286 in other countries.

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SRA-Europe has a new member on its Executive Committee. He is Bjorn Wahlstrom, International Institute for Applied Systems Analysis (IIASA), A-2361 Laxenburg, Austria (Phone +43 2236 715 210; FAX +43 2236 713 13).

## Workshop on "The Alaska Story"

A two-day workshop on the Valdez oil spill will be held September 17-18 at the U.S. Environmental Protection Agency Auditorium in Cincinnati, Ohio, under the sponsorship of the Biotechnology Forum, EPA, the U.S. Department of Energy, Technical Resources, Inc., and SRA. Participants will include EPA and NIOSH scientists who were at the scene of the spill, as well as university, Exxon, and Coast Guard representatives.

The purpose of the workshop is to help participants understand the specifics of the accident and the cleanup efforts at Prudhoe Bay and to discuss future cleanups of oil spills in the context of environmental biotechnology. The workshop, which is free of charge, should be of interest both to scientists and to policy makers, as well as to citizens at large.

For information on the technical aspects of the workshop, call Sohaib Khan (513-558-7224) or Vlasta Molak (513-521-9321). For registration information, call Ann Besignano (301-770-0610).

## Chapter Activities

(Continued from page 1.)

assist in liaison between the chapters, this issue of the newsletter includes the latest information on chapter officers and programs. As will be noted, the chapters are discussed in chronological order.

### National Capital Area

Received SRA approval in Fall, 1982; covers Maryland, Virginia, and the District of Columbia.

**Officers:** President, **Stephen L. Brown**, ENVIRON Corporation, 4350 N. Fairfax Drive, Suite 300, Arlington, Virginia 22203-1609 (Phone 703-516-2401); President-elect, **Curtis J. Haymore**, Environomics, 502 Glyndon Street SE, Vienna, Virginia 22180 (Phone 703-242-0265); Secretary, **Adam M. Finkel**, Resources for the Future, Center for Risk Management, 1616 P Street NW, Room 504, Washington, DC 20036 (Phone 202-328-5110); Treasurer, **Lee R. Abramson**, Office of Nuclear Regulatory Research, (NLS-372), Nuclear Regulatory Commission, Washington, DC 20555 (Phone 301-492-3949).

**Councilors:** **Benjamin Buchbinder**, National Aeronautics and Space Administration (Phone 301-443-7633); **Jerry R. Chandler**, National Institute of Health (Phone 301-496-1846); and **Michael E. Ginevan**, Versar, Inc. (Phone 301-585-4147).

**Meetings:** Monthly on the third Thursday (5 to 6:30 p.m.), with a break for the summer. This year the meetings have been held at the George Mason University Law School in Arlington, Virginia. The spring dinner meeting will be on June 14 with Alvin Lazen from the National Academy of Science speaking on "The Bittersweet Risk of Saccharin."

The chapter held a spring 1990 series of meetings with a common theme: "Evolution of Risk Estimates."

In March, Janice Longstreth, former National Capital Area chapter president and currently at ICF-Clement, presented "The Risks of Global Climate Change," or "Invest Now in Sunscreen Companies." She spoke on risk estimation for melanoma and other health effects as a consequence of stratospheric ozone depletion. In April, Jonathan Cannon talked about the evolving use of risk assessment to select remedies at Superfund sites. In May, Arthur Upton spoke on "Radiation Is More Dangerous Than You Think (Again)," including a summary of the findings of the BEIR-V committee.

To inquire about the chapter or its activities, please contact Stephen Brown or Adam Finkel.

### East Tennessee

Approved by SRA in Fall, 1982; covers East Tennessee.

**Officers:** President, **Milton Russell**, University of Tennessee, 327 S. Stadium Hall, Knoxville, Tennessee 37996-0710 (Phone 615-974-4251; FAX 615-974-1838). Other officers for 1990 will be elected soon.

**Meetings:** Three or four times annually in Knoxville, Tennessee. The chapter's annual Risk Analysis Methods Day will be held on June 7 at JBF Associates, Knoxville, Tennessee, with six half-hour talks scheduled: "Integrated Approach to Risk Assessment for Municipal Solid Waste Disposal" by Wayne Davis, University of Tennessee; "TVA's Lake Improvement Plan" by Chris Ungate, Tennessee Valley Authority; "Linear Communities and Risk" by Amy Wolfe, Oak Ridge National Laboratory; "Power Line Electromagnetic Field Hazards: History, Myths and Facts" by Clay Easterly, Oak Ridge National Laboratory; "Innovative Approaches to Risk Analysis for the Clinch River RCRA Facilities Investigation" by Steven M. Bartell, Oak Ridge National Laboratory; and "U.S. NRC Accident Sequence Precursor Program: Present

Methods and Findings" by Joe Minarick, Science Applications International Corporation.

In February, during the national Engineers Week observation, the East Tennessee chapter represented SRA in the seventeenth annual WATtec Interdisciplinary Technical Conference and Exhibition at the Hyatt Regency Hotel in Knoxville, Tennessee. (SRA is one of 40 national technical and professional society sponsors of WATtec.) The theme of the conference, in which over 150 papers were presented in 38 technical sessions, was "Global Competitiveness: Managing Technology." The SRA-sponsored technical session was entitled "Environmental Restoration and Superfund: Why Are We Cleaning Up Sites and Is It Doing Any Good?" The chapter's past-president, E. William Colglazier, The University of Tennessee, was the session moderator. Chapter member Curtis C. Travis (SRA's president-elect) of Oak Ridge National Laboratory, began the session with a paper on "Remedial Action Decision Process." Other members making presentations were Jan W. Borkowski, Martin Marietta Energy Systems, Inc., who spoke on "Estimating Risks for Prioritization of DOE Hazardous Waste Sites," and Milton Russell, who spoke on "Hazardous Waste Clean-up Policies for the 1990s and Beyond."

Inquiries about the chapter should be addressed to Milton Russell.

### New England

Approved by SRA in February, 1986; covers the New England area.

**Officers:** President, **Dale Hattis**, Massachusetts Institute of Technology, Center for Technology, Policy and Industrial Development, Building E-40, Room 227, Cambridge, Massachusetts 02139 (Phone 617-253-6468); President-elect, **Dave Burmaster**, Burmaster and Associates, P.O. Box 2667, Harvard Square Station, Cambridge, Massachusetts 02238 (Phone

617-491-2176); Treasurer, **Yee Cho**, BSC Group, 425 Summer Street, Boston, Massachusetts 02210 (Phone 617-330-5300).

**Meetings:** Monthly dinner (6:00 p.m.) and seminar (6:45 p.m.) at Massachusetts Institute of Technology (MIT), Building E-40, Room 212. The chapter meeting is usually preceded by the Boston Risk Assessment Group's monthly seminar, beginning at 3:30 p.m. in Building E-40 at MIT [see Chapter News in January, 1990, *RISK newsletter*].

In March, the chapter heard Hala Karam, from the Gradient Corporation, speak on the topic "Methodology for Determination of Health Protecting Soil Lead Clean-up Levels." David Kriebel from the University of Lowell spoke on "Non-Linear Models of Acute Respiratory Responses" at the April meeting. "Evaluation of the EPA Cancer Potency Factor for Chloroform" was the topic presented by Hugh Barton of ENSR in May, which was the last meeting until the fall season when new officers will be elected.

Questions about the chapter should be directed to Dale Hattis.

### Lone Star

*Approved by SRA in July, 1986; covers the state of Texas.*

**Officers:** President, **Richard Dreith**, Shell Oil Company, P.O. Box 4320, Houston, Texas 77210 (Phone 713-241-6245; FAX 713-421-2148); Secretary, **Ross Macdonald**, Shell Oil Company [see address above], (Phone 713-241-1255; FAX 713-241-2148); Treasurer **Stuart Cagen**, Shell Oil Company [see address above], (Phone 713-241-1407; FAX 713-241-2148).

**Councilors:** **Tom Downs**, University of Texas, School of Public Health, P.O. Box 20186, Houston, Texas 77225 (Phone 713-792-4421); and **Hatice Cullingford**, National Aeronautics and Space Administration, Houston, Texas 77058 (Phone 713-483-8402).

**Meetings:** Every three months, 6:30 p.m. in Houston. The next meeting will be in July or August with the election of new officers and a speaker (to be announced) on the topic "Risk Assessment Utility: 1990."

In January, a joint meeting of the chapter and the Houston Citizens' Environmental Coalition addressed the safety of food and the use and misuse of health information. Elizabeth Whelan, president of the American Council on Science and Health, was the guest speaker.

Ross Macdonald may be contacted for chapter membership information, and general questions may be directed to any of the officers.

### Northern California

*Approved by SRA in July, 1986; covers Northern California.*

**Officers:** President, **Jeffrey Daniels**, and Secretary, **Thomas McKone**, Environmental Sciences Division [L-453], Lawrence Livermore National Laboratory, P.O. Box 5507, Livermore, California 94550-0617 (Phone 415-422-3880); Acting Treasurer, **M.W. (Lee) Merkhofer**, Applied Decision Analysis, Inc., 3000 Sand Hill Road [Suite 4-255], Menlo Park, California 94025 (Phone 415-854-7101).

**Councilors:** **Chris Whipple**, Electric Power Research Institute, 3412 Hillview Avenue, P.O. Box 10412, Palo Alto, California 94303-0813 (Phone 415-855-2443); and **Aaron Wildavsky**, University of California, Survey Research Center, 2538 Channing Way, Berkeley, California 94720 (Phone 415-642-9974).

**Meetings:** During the school year but not on a regular schedule. The next meeting has tentatively been scheduled for June.

The chapter president reports that the chapter has been undergoing an extended recuperative period since

hosting the 1989 SRA Annual Meeting, and that delays in meetings, elections, and newsletters are just postponements due to the unusually busy schedules of the officers. Elections for 1990-91 officers, complementing the above list, will be held in June or July. Running for president-elect are Allen Smith, University of California at Berkeley, and Mark Temme, General Electric; for treasurer, Rod Schofield of Environ at Emoryville and R. Scott Strait of Lawrence Livermore National Laboratory; and, for councilor, Lauren Zeise of California Department of Health Services and Karl Dake, who is an affiliate of the University of California at Berkeley. The next newsletter is anticipated some time this summer.

Call 415-422-3880 and ask for Jeffrey Daniels or Thomas McKone with questions about the chapter.

### Metropolitan

*Approved by SRA in July, 1987; covers New York, Connecticut, and New Jersey.*

**Officers:** President, **Vinh Cam**, U.S. Environmental Protection Agency, 26 Federal Plaza, New York, New York 10278 (Phone 212-264-1216); President-elect, **Paul D. Moskowitz**, Brookhaven National Laboratory, Building 475, Upton, New York 11973 (Phone 516-282-2017); Secretary, **John M. Cozzolino**, Department of Management Science, Pace University, Pace Plaza, New York, New York 10038 (Phone 212-346-1915); Treasurer, **Sam Morris**, Brookhaven National Laboratory, [see address above], (Phone 516-282-2018).

**Councilors:** **Peter Hoefler**, Department of Management Science, Pace University, Pace Plaza, New York, New York 10038 (Phone 212-346-1915); **Richard Calfano**, Malcom Pirnie, Inc., White Plains, New York (Phone 914-694-2100); **Benjamin Goldman**, Public Data Access, Inc., 530 E. 13th Street, #32, New York, New York 10009 (Phone 212-529-1260); **Tibor Bernaph**, Bernaph and Heimann Associates, 220

West Jersey Street, Elizabeth, New Jersey 07207-1108 (Phone 201-352-2302).

**Meetings:** The next meeting will be Thursday, June 7, at noon at the Mobil Oil Corporation in New York City. Barry Milcarek, manager of Health Effects Assessment at Mobil, will present "Using Epidemiological Data for Estimating Lifetime Cancer Risk." Those planning to attend the meeting should notify the chapter president or Milcarek (Phone 212-883-5346) in order to obtain security clearance to enter the Mobil building.

In November, 1989, the chapter heard John M. Cozzolino speak on "The Property/Liability Insurance Industry: Its Liability Problems and Its Price Cycle." (Cozzolino has specialized in the study of risk from both a business risk and an insurable risk perspective and, after teaching for 14 years at The Wharton School and spending several years in the insurance industry, has returned to academic life at Pace University.) The chapter's April meeting celebrated Earth Day (April 22). David R. Brown, chief of the Division of Environmental Epidemiology and Occupational Health for the State of Connecticut, spoke on "Environmental Analysis of Risk from a Local Perspective: Case Studies of Connecticut Risk Assessment." A pot-luck lunch with families and friends was held afterward.

To ask questions about the Metropolitan chapter, please contact John M. Cozzolino.

### Research Triangle

*Approved by SRA in July, 1987; covers Raleigh, Durham, and Chapel Hill, North Carolina and surrounding region.*

**Officers:** President, **Thomas B. Starr**, Environ, 6917 Valley Ridge Court, Raleigh, North Carolina 27615 (Phone 919-876-9119); President-elect, **Jenifer S. Heath**, Garaghty & Miller,

Inc., 3724 National Drive, Suite 228, Raleigh, North Carolina 27602-2091 (Phone 919-781-8199); Secretary, **Deborah Amaral**, University of North Carolina-Chapel Hill, 105 Rosenau, CB#7400, Chapel Hill, North Carolina 27599; Treasurer, **David McKee**, U.S. Environmental Protection Agency, OAQPS, MD-12, Research Triangle Park, North Carolina 27711 (Phone 919-541-5288).

**Councilors:** **Harvey M. Richmond**, U.S. Environmental Protection Agency, OAQPS, MD-12, Research Triangle Park, North Carolina 27711 (Phone 919-541-5271); **Allen H. Marcus**, Battelle Laboratories, 1325 Bridgeport Drive, Raleigh, North Carolina 27615 (Phone 919-549-8970); **Carol M. Schiller**, 3605 Glenwood Ave., Suite 220, Raleigh, North Carolina 27612 (Phone 919-787-7644).

**Meetings:** Monthly, usually at 4:45 p.m. in Research Triangle Park. The June meeting will probably be a picnic with families invited. There will be a break from the program schedule in July and August during which time the annual September workshop will be planned. This year the workshop will focus on the Environmental Protection Agency's new procedures for determining reference doses for non-cancer health effects.

In January the chapter heard Charles Anderson of the North Carolina State University Department of Marine, Earth, and Atmospheric Sciences speak on "Risks of Weather-Related Phenomena." The seminar included an amateur videotape of a tornado striking a neighborhood and an infrared video of Hurricane Hugo's path through the Carolinas. "Local Emergency Management: Experiences and Lessons" was presented by William L. Colley, Durham-Durham County Emergency Management Agency, at the February meeting. Lee Crosby, chief of the Superfund Branch of the North Carolina Department of Health, Environment, and Natural Resources, spoke on the federal and state superfund sites of North Carolina at the May meeting.

Contact Harvey M. Richmond, who is editor of the chapter's tri-annual

newsletter, for more information on the chapter.

### Southern California

*Approved by SRA in July, 1987; covers the southern California region.*

**Officers:** President, **Michael G. Stamatelatos**, ASI Systems International, 3319 Lone Jack Road, Encinitas, California 92024 (Phone 619-759-0348; FAX connection available by calling phone number); Past-president, **Stan Kaplan**, Pickard, Lowe and Garrick, Inc., 2260 University Drive, Newport Beach, California 92660 (Phone 714-650-8000); President-elect, **Robert J. Mulvihill**, Planning Research Corporation, Los Angeles, California (Phone 213-215-3011); Secretary, **Donald G. Browne**, University of California (UCLA), 5532 Boelter Hall, Los Angeles, California 90024-1597 (Phone 213-825-9610; FAX 213-825-0761); Treasurer, **Andrew A. Dykes**, Pickard, Lowe and Garrick, Inc., (see address and phone above).

**Councilors:** **George Apostolakis**, University of California (UCLA), 5532 Boelter Hall, Los Angeles, California 90024-1597 (Phone 213-825-1300; FAX 213-825-0761); **Larry R. Froebe**, International Technology (IT) Corporation, 17461 Derian Avenue, Suite 190, Irvine, California 92714 (Phone 714-261-6441; FAX 714-474-8309); **G. William Hannaman**, NUS Corporation, San Diego, California (Phone 619-451-2131); **Terry H. Fogle**; **Mardy Kazarians**; **Douglas Orvis**; **Theo G. Theofanous**; **Stan Kaplan**.

**Meetings:** Monthly, beginning in the fall, on a trial basis. The chapter has tentatively planned a July dinner meeting with Gerald Hiatt, Environmental Protection Agency Region IX

**Want to organize an SRA chapter? Contact Chris G. Whipple, Electric Power Research Institute, 3412 Hillview Ave., Palo Alto, CA 94303 (Phone: 415-855-2443).**

Expert Toxicologist, speaking on "Risk Assessment Guidance for Superfund." (Complimentary copies of the guidance document will be available for those who do not already have one.)

The chapter is planning two large meetings. On June 7, the chapter's annual workshop will be held in the UCLA Faculty Center. The central topic will be "Current Risk Management Issues in California." The program will focus on Risk Management and Prevention Programs (RMPPs) for transportation and industry. In February 1991, the chapter will host an SRA-sponsored international conference on Probabilistic Safety Assessment and Management (PSAM). The four-day event has already scheduled six concurrent sessions, with over 300 papers to be presented. George Apostalakis, general chairman of the conference, says that it will be "devoted to the advancement of system-based methods for the design and operation of technological systems and processes." [See call for papers in September 1989 issue of *RISK newsletter*, and watch for notice in September 1990 issue.]

The chapter newsletter "Risk Resources" was inaugurated in April. The title was taken from the definition and purpose of the chapter as explained by Michael Stamatelatos in his article under the headline "Welcome!": "The SCSRA [Southern California Chapter] is the society for risk assessment professionals in southern California. It is intended to provide a forum for information exchange and the resources we use to conduct risk assessment, hence the name for this newsletter...." He also encouraged chapter growth by including "every one using risk assessment techniques in southern California" as the list of prospective members. The first issue of the quarterly newsletter was the accomplishment of its editor, Larry Froebe. However, Froebe encouraged the chapter to become involved and submit contributions for future newsletters. The first issue included the following columns: Risk Assessment News and Practices; Bibliography; and, "What's A ...?" [definitions of popular risk

assessment terminology]. Another accomplishment of the chapter was to change its by-laws. The officers are now elected to two-year terms.

Questions concerning the chapter should be addressed to Michael Stamatelatos.

### Philadelphia

*Approved by SRA in February, 1988; covers the Philadelphia area.*

**Officers:** President, **Martin Needleman**, Social Research Associates, Bryn Mawr, Pennsylvania.

**Councilors:** **Rudy Yadsik**, University of Pennsylvania, (Phone 215-568-0034); **Carolyn Nunley**, Environmental Research Management, Inc., 355 Springdale Drive, Exton, Pennsylvania 19341 (Phone 215-524-3568); **Rebecca Coles**, Environmental Research Management, Inc. [see above address]; **Marvin Ziskin**, Temple University.

**Meetings:** Four meetings are usually scheduled during the school year, with a break for the summer, and are held at the University of Pennsylvania. Election of new officers will be held in the fall.

In March, the chapter hosted an evening with Roger Raufer, Public Management Consultants, to discuss "Emissions Trading and Acid Deposition Control."

### Columbia-Cascades

*Approved by SRA in March, 1989; covers British Columbia, Idaho, Oregon, and Washington.*

**Officers:** President, **George Cvetkovich**, Western Institute for Social and Organizational Research, Western Washington University, Bellingham, Washington 98226 (Phone 206-676-3544; FAX 206-676-3044); President-

elect, **Richard Palmer**, Department of Civil Engineering, FX-10, University of Washington, Seattle, Washington 98195 (Phone 206-545-2658); Secretary, **Donald MacGregor**, Decision Research, 1201 Oak Street, Eugene, Oregon 97401 (Phone 503-485-2400, FAX 503-485-2403); Treasurer, **Timothy C. Earle**, Western Institute for Social and Organizational Research, Western Washington University, Bellingham, Washington 98226.

**Councilors:** **Dana Davoli**, U.S. Environmental Protection Agency, Region 10 (ES-098), 1200 Sixth Avenue, Seattle, Washington; **Donald E. Wood**, Westinghouse Hanford Co., H4-51, P.O. Box 1970, Richland, Washington 99352; **Joyce Tsuji**, Environmental Toxicology International, Inc., Plaza 600 Building, Suite 700, 600 Stewart Street, Seattle, Washington 98101.

**Meetings:** Third or fourth Saturday from 9:00 a.m. to noon, bi-monthly in Seattle, Washington. On June 16, Steve Nicholas from the U.S. Environmental Protection Agency, Region 10, will speak on "Risk Assessment and the Washington Environment 2010 Project." This will be the last meeting before next fall.

At the April 21 meeting, Maurice Greiner of Johnson and Higgins spoke on the topic "Looking at Risk from the Insurance Industry Perspective." Also, nominations have been made for an election of new officers. The nominees for president-elect are James S. Dukelow, Jr. and Norm McCormick, and those for secretary are Pat Cirone and Ruth Weiner. In the May newsletter, an issue facing the chapter at the end of its first year was cited: the impracticality for many members to attend meetings due to the chapter's large geographic region. The membership was requested to respond with their opinions of three ways suggested in the newsletter to deal with this issue.

Questions about the chapter should be directed to George Cvetkovich, who, in addition to being president, is editor of the chapter's bi-monthly newsletter.



## Ohio

*Approved by SRA in March, 1989; covers southwestern and central Ohio and northern Kentucky.*

**Officers:** President, **Steven D. Lutkenhoff**, U.S. Environmental Protection Agency, 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268 (Phone 513-569-7531; FAX 513-569-7276); President-elect, **Ronald J. Marnicio**, Ebasco Environmental, 5000 Bradenton Avenue, Suite 200, Dublin, Ohio 43017 (Phone 614-761-2008; FAX 614-761-2116); Secretary, **Jeffrey C. Swartout**, Environmental Criteria and Assessment Office, U.S. Environmental Protection Agency, 26 W. Martin Luther King Drive, MS-114 Cincinnati, Ohio 45268 (Phone 513-569-7811; FAX 513-569-7276); Treasurer, **Jacqueline Patterson**, [same affiliation and address as Jeffrey Swartout] (Phone 513-569-7574; FAX 513-569-7276).

**Councilors:** **Roy Albert**, University of Cincinnati Medical Center, Department of Environmental Health, 3223 Eden Avenue, Cincinnati, Ohio 45267-0056 (Phone 513-558-5701; FAX 513-558-1756); **Richard C. Hertzberg**, Environmental Criteria and Assessment Office, U.S. Environmental Protection Agency, 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268 (Phone 513-569-7582; FAX 513-569-7276); **William Rish**, Ebasco Environmental, 5000 Bradenton Avenue, Suite 200, Dublin, Ohio 43017 (Phone 614-761-2007; FAX 614-761-2116).

**Meetings:** Quarterly on a weekday evening in the northern Cincinnati area. This summer the chapter is hosting a mini-conference on computer software for risk analysis. Paul Moskowitz, editor and software reviewer for the SRA journal *Risk Analysis*, has been helping with the initial planning of the day-long event and will participate in the conference. Displays and exhibitions by vendors and chapter members of computer programs and pertinent data bases will be arranged. Those willing to demonstrate a particular computer model, application, or self-produced

software should contact Rick Hertzberg (Phone 513-569-7582) for more details.

The January meeting of the Ohio chapter began with a business session in which reports from various committees were presented (including work on a chapter directory). The results of the autumn elections were also announced and possible program topics were discussed. Afterward, Jack Loper, Professor of Environmental Health and Molecular Biology at the University of Cincinnati, spoke on the topic "Biodegradation and Related Risks: An Update." In May, a poster session was held with participants presenting a short oral synopsis of their work and displaying an associated poster. Also, two chapter members were invited speakers at the May 10 meeting of the Southwest Ohio chapter of the American Nuclear Society. William Rish and Ronald Marnicio, both of Ebasco Environmental in Columbus, Ohio, jointly presented "Planning and Implementing Risk Assessment Activities for Contaminated Sites." Later this year, the two local chapters are planning a joint meeting.

Inquiries about the chapter should be addressed to Jeff Swartout.

## Greater Pittsburgh

*Approved by SRA in November, 1989; covers the western Pennsylvania area.*

**Officers:** President, **Richard T. Decesar**, Keystone Environmental Resources, 3000 Tech Center Drive, Monroeville, Pennsylvania 15146 (Phone 412-825-9631; FAX 412-825-9699); President-elect, **Julian Andelman**, GSPH A-716, University of Pittsburgh, Pittsburgh, Pennsylvania 15261 (Phone 412-624-3113; FAX 412-624-3013); Secretary, **Jon F. Merz**, Dept. EPP, 129 Baker Hall, Carnegie Mellon University, Pittsburgh, Pennsylvania 15213 (Phone 412-268-5609); Treasurer, **Jeanette Trauth**, 121 University Place - 6th Floor, University of Pittsburgh, Pittsburgh, Pennsylvania

15260 (Phone 412-624-3791; FAX 412-624-4810).

**Councilors:** **David Pipozar**, Allegheny County Health Department, 3333 Forbes Avenue, Pittsburgh, Pennsylvania 15213 (Phone 412-578-8030); **Barbara J. Henry**, PPG Environmental Science Center, 260 Kappa Drive, Pittsburgh, Pennsylvania 15238 (Phone 412-963-5808); **Timothy G. Prothero**, 5880 Northumberland Street, Pittsburgh, Pennsylvania 15217 (Phone 412-247-5124).

**Meetings:** No established schedule. A dinner meeting is being planned for the next meeting.

On April 27, the Greater Pittsburgh Chamber of Commerce in cooperation with the Pittsburgh Chapter of SRA and Allegheny County hosted a symposium entitled "Air Quality & Environmental Risk: Assessment and Management." The conference chairman was SRA President-elect Curtis Travis, and several SRA members participated in panel discussions and presentations during the day. The opening plenary session on risk assessment addressed the questions of "What is risk?" and "What is acceptable risk?" from the scientific, economic, environmental, industrial, and legislative perspectives. The scientific perspective was presented in more detail on the subjects of air-related exposure assessment and monitoring, regulating exposure to human health effects (quantitative risk assessment concepts), and risk assessment and practice. The keynote address, "Translating Risk Assessment into Risk Management," was given by Bernard Goldstein, chairman of the Department of Environmental and Community Medicine, University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School. Following were three concurrent sessions on risk communication, risk economics, and permitting, compliance, and SARA Title III regulations. The closing plenary session was a panel discussion on "What Have We Learned About Risk Management?" Information regarding conference proceedings is available by contacting

CONSAD Research Corporation (Phone 412-363-5500).

In addition to being officially approved as a chapter by the SRA Council during the 1989 annual meeting, Greater Pittsburgh incorporated as a 501-C3 non-profit corporation under the Internal Revenue Service classification of an organization for scientific and educational purposes. Treasurer Jeannette Trauth reports that this action has already aided the chapter financially, such as not having to pay a

service charge on its bank account, and has opened the door for tax-deductible contributions and corporate memberships. Also, having worked together with a chamber of commerce on a conference which attracted many businesses, the chapter has a source of names for possible corporate membership. If any chapter treasurers would be interested in learning more about the Ohio chapter's incorporation process, Trauth (Phone 412-731-7944) is willing to answer questions. Trauth also reports that another source of funds which had

been very helpful to the chapter was a one-time grant of \$300 from SRA to aid in local program development, and an additional \$300 grant is available if it is matched by local contributions.

Contact Jon Merz with questions concerning the chapter.

*Note: A special thank you to the chapter representatives who supplied information for this article. Please continue to keep us informed.*—Mary Bryant

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## Risk Activities in Latin America

Cristina Cortinas de Nava of Mexico has reported to SRA President-elect Curtis Travis that seven Latin American professionals who received training last year on risk and health assessment at the U.S. Environmental Protection Agency (EPA) and the Agency for Toxic Substances and Disease Registry (ATSDR) met again in May of this year to discuss strategies for development of these fields in Latin America. She also described the following activities that are under way in Mexico: 1) a Spanish translation of portions of the ATSDR Methodology for Health Assessment; 2) selection and preparation of case studies of priority interest to Mexico, such as ones relating to arsenic and lead; 3) short training courses based on the case studies to train personnel from government, industry, and academic groups throughout Mexico; 4) an international symposium and workshop on lead in 1991, focusing on lead problems in Mexico but opening participation to other countries so that they can develop similar workshops

in their regions; and 5) a network of analytical laboratories, research groups, experts on intoxications, toxicology information centers, etc., that will collaborate on hazardous site characterizations, risk and health assessments, and in programs to respond to chemical accidents.

Cortinas De Nava also reported that she is part of the faculty at the School of Public Health, where a master degree program on environmental health for those specializing in risk and health assessment was started last March. Another faculty member, Mariano Cebrian, is developing a master degree program in toxicology with a similar approach.

Latin American risk professionals want SRA to know what is happening in their region so that more interaction between the Society and Latin America may be planned for the future. They also are hoping to organize and eventually become a recognized part of SRA.

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## New Section Efforts Continuing

The SRA International Communication Network established at the 1989 SRA Annual Meeting has resulted in inquiries about forming new sections in Egypt, Venezuelan, Taiwan, and Nepal, plus further movement toward organizing a section in Yugoslavia, reports Vlasta Molak, SRA's international coordinator. Molak plans a trip to Brazil this summer and requests suggestions from members on contacts she should make. In addition, she points out that a special session entitled "International Role of Risk Analysis" to be held at the forthcoming annual meeting should be a forum for expanding SRA's influence.

**Available Upon Request:** Informal summary (55 pages) of symposium on "Regulatory Management of Carcinogenic Chemical Risks," held May 2-5, 1989, at Wrightsville Beach, North Carolina. Contact William W. Lowrance, Life Sciences and Public Policy Program, The Rockefeller University, 1230 York Avenue, New York, NY 10021-6399 (Phone 212-570-8679). Lowrance was the chairman of the symposium, with numerous SRA members serving on the planning committee.

# Journal Contents

The tables of contents of Vol. 10, No. 2 and Vol. 10, No. 3 of the SRA journal *Risk Analysis* are reprinted below.

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 D. Warner North, *Risk Analysis: Where Have We Been? Where Are We Going?*  
 Kenneth T. Bogen, *Of Apples, Alcohol, and Unacceptable Risk*  
 H. Felix Kloman, *Risk Management Agonistes*

### LETTERS TO THE EDITOR

- Robert L. Sielken, Jr., *Driving Cancer Dose-Response Modeling with Data, Not Assumptions*  
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### ARTICLES

- Gordon Hester, M. Granger Morgan, Indira Nair, and Keith Florig, *Small Group Studies of Regulatory Decision Making for Power-Frequency Electric and Magnetic Fields*  
 Daniel G. Brooks, *Using Related Samples in Assessing Conformance to Safety Goals: A Nuclear Reactor Safety Application*  
 Leonard Evans, Michael C. Frick, and Richard C. Schwing, *Is It Safer to Fly or Drive?*  
 Hans Bohnenblust and Serge Pretre, *Appraisal of Individual Radiation Risk in the Context of Probabilistic Exposures*  
 William S. Pease, Lauren Zeise, and Alex Kelter, *Risk Assessment for Carcinogens Under California's Proposition 65*  
 Sylvia A. Edgerton et al., *Priority Topics in the Study of Environmental Risk in Developing Countries*  
 James J. Chen, David W. Gaylor, and Ralph L. Kodell, *Estimation of the Joint Risk from Multiple-Compound Exposure Based on Single-Compound Experiments*  
 Adam M. Finkel, *A Simple Formula for Calculating the "Mass Density" of a Lognormally-Distributed Characteristic: Applications to Risk Analysis*  
 Dale Hattis, *Pharmacokinetic Principles for Dose Rate Extrapolation of Carcinogenic Risk from Genetically Active Agents*  
 Curtis C. Travis, *Tissue Dosimetry for Reactive Metabolites*  
 Suresh Moolgavkar and George Luebeck, *Two-Event Model for Carcinogenesis: Biological, Mathematical and Statistical Considerations*

### SOFTWARE REVIEWS

- David E. Burmaster and Edye C. Udell, *Crystal Ball Rev. 1.0.2*

### SOFTWARE LISTINGS

- Kim Bradley, *Environmental Database on Compact Discs*

### BOOK REVIEWS

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## Vol. 10, No. 3

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- M. Granger Morgan and Lester Lave, *Ethical Considerations in Risk Communication Practice*  
 Fred D. Hoerger, *Presentation of Risk Assessment*

### LETTERS TO THE EDITOR

- Rosalind A. Volpe, *Lead in the Environment: Coming to Grips with Advocacy versus Scientific Integrity in Risk Assessment*  
 Fritz A. Seiler, *On the Use of Risk Assessment in Project Management*

### ARTICLES

- James K. Hammitt, *Risk Perceptions and Food Choice: An Exploratory Analysis of Organic vs. Conventional Produce Buyers*  
 Emily Roth, Granger Morgan, Baruch Fischhoff, Lester Lave, and Ann Bostrom, *What Do We Know About Making Risk Comparisons?*  
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 Michael K. Lindell and Ronald W. Perry, *Effects of the Chernobyl Accident on Public Perceptions of Nuclear Plant Accident Risks*  
 Ronald L. Iman and Stephen C. Hora, *A Robust Measure of Uncertainty Importance for Use in Fault Tree System Analysis*  
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 Bart D. Ostro, *Associations Between Morbidity and Alternative Measures of Particulate Matter*  
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 Dale Hattis, Paul White, Laura Marmorstein, and Paul Koch, *Uncertainties in Pharmacokinetic Modeling for Perchloroethylene*  
 Daniel Wartenberg and Michael A. Gallo, *The Fallacy of Ranking Possible Carcinogen Hazards Using the TD50*

### SOFTWARE REVIEWS

- Paul Moskowitz

### SOFTWARE LISTINGS

- Paul Moskowitz

### BOOK REVIEWS

- Robin White

## News from SRA-Japan

SRA-Japan's former vice-president Eiji Yokoyama, Deputy Director of the Institute of Public Health, will begin his two-year term as president on June 2, when the section will hold its third annual meeting and elect other new officers. The outgoing president, the first person to have held the office, is Tomitaro Sueishi of Osaka University, to whom the section expresses its gratitude.

SRA-Japan has announced that its Third Annual Conference will be held at the Institute of Public Health (Shirogane-dai, Tokyo) on Friday, November 30 and Saturday, December 1, from 10:00 a.m. to 5:00 p.m. each day. There will be three special sessions: "Prod-

uct Liability and Risk Management: Concepts and Legislation"; "Anticipatory Approach to Environmental Resource Management"; and, "Interface Between Science and Risk Analysis: Test and Diagnostic Issues." General sessions on risk analysis and risk management will also be included.

Over five sessions with 10 invited and more than 12 applied papers and 200 participants are expected. Conference proceedings will be pre-printed and handed out at the meeting. Serving on the program committee are Y. Asami, Law School, University of Fukuoka; Y. Kitabatake, Institute of Socio-Economic Planning, University of Tsukuba; Y. Hayashi, National Institute of

**Third Annual Conference**  
**SRA-Japan**  
**November 30—December 1**  
**Institute of Public Health**  
**Tokyo**

Hygiene; and S. Kobayashi, National Institute of Radiological Science. For more information, please contact the SRA-Japan secretary, Saburo Ikeda, Institute of Socio-Economic Planning, University of Tsukuba, Sakura, Ibaraki 305, Japan (Phone 0298-53-5380; FAX 0298-55-3849).

## News from SRA-Europe

SRA-Europe chairman Pieter Jan Stallen has provided additional information on the environmental conference to be held in Kiev, United Soviet Socialist Republic [U.S.S.R.], on November 22-23. SRA-Europe and the Committee for Systems Analysis of the U.S.S.R. Academy of Sciences (Working Group for Risk Analysis and Safety) have coorganized the conference titled "Environmental Risk Management—The European Case." It will be held under the aegis of the U.S.S.R. State Committee for Nature Protection, the Council of Ministers of the Ukrainian Republic, the World Health Organization (WHO) Regional Office for Europe, the Secretariat of the United Nations Economic Commission for Europe, and the International Institute for Applied Systems Analysis.

**Conference on**  
**Environmental Risk**  
**Management: The**  
**European Case**  
**November 22-23**  
**Kiev, USSR**

The main objectives of the Kiev conference are: 1) to identify and characterize the main environmental risks present in the activities of today's human society; 2) to discuss the state of the art in environmental risk modeling and analysis, with emphasis on the most effective technologies and management approaches for reducing these risks; 3) to consider the prioritization of environmental problems, and to exchange views on the various approaches to decision-making on environmental improvement strategies; 4) to discuss and display the range of methods and techniques used for modeling and simulating environmental risks; and 5) to contribute to the development of greater international care for the environment. The management of environmental problems in industry and agriculture will be discussed from the perspective of the engineering sciences, the health and environmental sciences, and the decision-theory sciences. There will also be an opportunity to participate in a poster session and/or demonstration of computer software.

Many Eastern and Western European professionals are expected to be interested in attending the conference;

but, for practical reasons, the number of participants will be limited. Therefore, the Organizing Committee reserves the sole right to accept or decline applications. Applications must be received by either of the conference secretariats on July 1. For more information or to request an application, please contact the secretariat for Western Europe,

P.J.M. Stallen  
IMSA, Institute for Environment  
and Systems Analysis  
Emmastraat 16, 1075 HT  
Amsterdam, The Netherlands  
Phone +31.20.6620696  
FAX +31.20.751576;

or for Eastern Europe,  
R. Golubev  
V.M. Glushkov Institute of  
Cybernetics  
Glushkov Avenue 20  
Kiev 252207, USSR  
Phone +095.7.044.131272  
FAX +095.7.044.2667418.

Conference speakers will be requested to make available full written papers of their presentations on or before the first day of the conference. Those papers which are submitted will be considered for publication in the Society's journal, *Risk Analysis*.

## SRA's Global Risk Analysis Section Plans Activities

SRA's only topical section approved thus far, the Global Risk Analysis Section, is currently organizing its activities according to Rob Coppock, chair of the Global Risk Analysis Committee, and Roger Kasperson, SRA councilor and contact councilor for the committee. Initial efforts have focused on identifying relevant research and exploring conceptual and methodological approaches, but participation is needed from Society members.

Membership in the Global Risk Analysis section may be obtained by sending the 1990 membership fee of \$10.00 (to support mailings, etc.) with a full mailing address, telephone and FAX numbers, and any other communications addresses to Rob Coppock, National Academy of Sciences, 2101 Constitution Avenue NW, Washington, DC 20418 (Phone: 202-334-1517; FAX: 202-334-1519). Please make the check payable to The Society for Risk Analysis and indicate that it is for the Global Risk Analysis Section. In addition, section members should send a brief description of their current activities or research dealing with global risk assessment and management and enclose a copy of relevant reports or articles which they have written. Also, any suggestions for activities which members would like the Global Risk Analysis section to undertake, such as newsletters, seminars, special meetings, etc., or any other suggestions would be welcomed. Finally, if members could suggest other individuals who might be interested in the section, their names and mailing addresses should be sent.

A business meeting of the Global Risk Analysis section will be held at the SRA annual meeting in New Orleans. All section members are urged to attend.

### Report from Laxenburg

The second conference of SRA-Europe, held on April 2-3 in Laxenburg, Austria, was attended by some 110 participants from 19 different countries: Austria, Belgium, Denmark, Finland, France, Greece, Italy, Israel, The Netherlands, Norway, Portugal, Romania, Sweden, Switzerland, United Kingdom, United States, United Soviet Socialist Republic, West Germany, and Yugoslavia. The International Institute for Applied Systems Analysis (IIASA) again co-organized the conference with SRA-Europe, and the World Health Organization Regional Office-Europe was its co-sponsor. Marc Poumadere, a member of the SRA-Europe executive committee, was

chairman of the conference organizing committee, which published a statement in the printed program of the conference from which the following was taken: "Risk analysis in Europe takes on new meaning, as relationships between East and West are evolving and as the European Communities [EC] approach 1992 [the target date for an open trade market between the members of the EC to begin]. Increased public awareness of health, environment and quality of life issues raises the importance of risk analysis. Practices in many domains thus must be reconsidered, compared and contrasted in order to arrive at acceptance of shared standards. These circumstances, among others, afford us the opportunity to

## Happenings

Curtis Haymore, president-elect of the National Capital Area Chapter of SRA, has established a new firm, ENVIRONMENTALS, Inc., with Robert O'Connor and others. The firm provides a wide range of services to federal government agencies, including risk analysis. The address is: ENVIRONMENTALS, Inc., 502 Glyndon Street, S.E., Vienna, Virginia 22180 (Phone 703-242-0265).

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A new Center for Education in Insurance Underwriting has been established at Pace University's Lubin Schools of Business in New York City under the direction of the secretary of SRA's Metropolitan Chapter, John M. Cozzolino, Jr. Cozzolino is director of the American Risk and Insurance Association and a former faculty member at The College of Insurance and the Wharton School of the University of Pennsylvania.

\*\*\*\*

SRA Councilor R.A. (Tony) Cox has started his own risk analysis and safety engineering consultancy, Four Elements Ltd., in London. The company is an associate company of the Environmental Resources Management Group (ERM) of Exton, Pennsylvania, and of Environmental Resources Ltd. (ERL) in London, England. The address is: Four Elements Ltd., 25 Victoria Street, London SW1H 0EX, England (Phone +44 1 233 1088; FAX +44 1 233 2152).

**SRA Executive Meeting  
Washington, DC  
July 19, 1990  
8:30 AM—3:30 PM**

consider practices and standards in risk analysis." The plenary presentation, "An Analysis and Synthesis of Cascade Effects of Catastrophes in Environmental Impact Assessment," was given by A.S. Gloustchenko from the All-Union Research Institute for Systems Studies in Moscow, U.S.S.R. He presented an approach to comprehensive investigation of very large accidents where chain reactions can cause snow-ball effects which lead to enormous damage, far away from the epicenters of the catastrophes. In addition to the plenary session, there were 56 papers presented in 14 sessions, three of which were organized by the WHO Regional Office for Europe on risk communication.

# Positions Available

## Program Director Positions at NSF

The National Science Foundation is seeking candidates for the positions of Program Director and Associate Program Director for the Decision, Risk, and Management Science Program within the Division of Social and Economic Science. One position will be open in summer of 1990, and another will be open in summer of 1991. There is some flexibility in starting dates.

These one-year to two-year Visiting Scientist assignments involve responsibility for coordinating, encouraging and evaluating research and research proposals; interacting with the research community and other programs within NSF in order to ensure continued growth and success of this very successful program; and the development of new and creative research directions.

The Decision, Risk, and Management Science Program supports fundamental research in management science, risk analysis, and decision making. Research opportunities in these areas include modeling of operational and managerial processes, risk management, studies of behavioral decision making, and design of organizational processes. A qualified individual should have a proven research record, some administrative experience, and an interest and ability to effect change in the federal research establishment by developing new initiatives. The person should also be acquainted with members of the decision, risk, and management science research community.

Interested individuals should call or send a vita to the current program directors as follows:

James Shanteau, Program Director  
(Phone 202-357-7417), or  
L. Robin Keller, Associate Program Director  
(Phone 202-357-7569).  
Decision, Risk, and Management Science Program  
Room 336, National Science Foundation  
1800 G Street N.W.  
Washington, D.C. 20550.

## Director of Risk Management/Finance

The Metropolitan Atlanta Rapid Transit Authority is seeking candidates to fill the position of Director of Risk Management. Under the general direction of the AGM/Finance, this position will involve planning, directing, and coordinating the risk management, safety/loss prevention, and capital/tort claims programs in order to maximize protection of the Authority's assets at the most economical rates. Additional responsibilities include analyzing and classifying risks as to frequency and potential severity, measuring financial impact on the Authority, and selecting the most appropriate techniques to minimize loss. The director will also manage surety, liability, property, and workers' compensation insurance programs. Requirements: Bachelor's degree in Insurance/Risk Management, Business Administration or a directly related field (advanced degree in Insurance or Business or professional certification desired) and progressively responsible experience in assessing and evaluat-

ing potential risks and determining appropriate insurance coverages. In lieu of degree, directly related experience may be substituted on a year-for-year basis. Please send a resume, indicating the job title Director of Risk Management, to:

Ms. Willa Rice  
MARTA  
2424 Piedmont Road, N.E.  
Atlanta, Georgia 30324-3324

## Senior Scientist/Risk Assessment

HMM Associates, Inc. (Engineers, Environmental Consultants & Planners) has an immediate opening for a Senior Scientist/Risk Assessment. Successful candidate will manage a variety of risk assessment projects at hazardous waste sites, industrial facilities, incinerators and disposal sites. Responsibilities include development of scope of work, cost estimating, interface with clients and government review agencies, staff supervision, development of methodology, conduct of work, and report generation. Requirements: Minimum of six years related experience which includes at least three years experience as a lead scientist plus a Masters degree in Toxicology, Chemistry, or related field; PhD a plus. To apply, call or send resume to:

Barbara Wilhelm, Human Resources Manager  
HMM Associates, Inc.  
196 Baker Avenue  
Concord, Massachusetts 01742  
Phone 508-371-4000  
(Equal Opportunity Employer)

## Environmental Risk Management Position

The Center for Risk Management at Resources for the Future, an independent nonprofit research and educational organization, has an opening in its interdisciplinary research staff. The Center, established in 1987, conducts and sponsors research and educational activities related to the identification and assessment of risks to health and the environment, the design of appropriate public and private policies to deal with them, and effective communication between policymakers and the public about these risks and policies. Requirements: Ph.D., equivalent degree, or comparable experience; a commitment to careful and impartial research; and, an interest in the efficient and equitable management of risks to health and the environment. Applications from graduates of academic programs in "risk" are especially sought. Salary commensurate with experience; excellent benefits. Please send cover letter, curriculum vita, writing sample, and the names, addresses, and phone numbers of three professional references to:

Michael Gough, Director  
Center for Risk Management  
Resources for the Future  
1616 P Street N.W.  
Washington, D.C. 20036  
(An Affirmative Action/Equal Opportunity Employer)

## Calendar of Events

July 9-13. **QUANTITATIVE RISK ASSESSMENT FOR ENVIRONMENTAL AND OCCUPATIONAL HEALTH HAZARDS.** Massachusetts Institute of Technology, Cambridge, Massachusetts. A part of the institute's summer session, this program will provide the basic background for technically oriented people to participate as members of inter-disciplinary teams in the quantitative assessment of health risks. The faculty is Dale Hattis, Harold F. Hemond, and John R. Ehrenfeld. For more information, please contact the Office of the Summer Session, 50 Ames Street, Room E19-356, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139 (Phone 617-253-2101; Telex 92-1473 MITCAM; FAX 617-253-8042).

July 10-September 28. **COURSES OFFERED BY HARVARD SCHOOL OF PUBLIC HEALTH, Boston, Massachusetts:** Management and Disposal of Radioactive Wastes (July 10-14); Respiratory Protection and Chemical Protective Clothing (August 13-17); Occupational and Environmental Radiation Protection (August 20-24); Fundamentals of Occupational Safety: Key Success Factors in Workers' Compensation Cost Control (August 27-31); Risk Analysis in Occupational and Environmental Health (September 5-7); Indoor Air Quality (September 18-20); Industrial Ergonomics: Human Factors in Occupational Health and Safety (September 24-28). Please contact: Mary F. McPeak, Office of Continuing Education, Harvard School of Public Health, 677 Huntington Avenue, Boston, Massachusetts 02115 (Phone 617-432-3515).

August 19-24. **XXI PAN AMERICAN FEDERATION OF ENGINEERING SOCIETIES CONVENTION, Omni Shoreham Hotel, Washington, D.C.** Conference theme is "Pan American Engineers - Partners for Progress," with the main goal being "to encourage the engineering community to spend the last decade of this millennium preparing for a better life [adequate housing, sufficient and healthful food, adequate energy sources, good sanitation systems, plenty of clean water, and a good infrastructure] in the next century." Sessions address natural disasters, ocean and coastal engineering, food supplies, waste treatment, energy production, technology transfer, and education. Pre-registration deadline: July 15. For more information, please contact: Convention Management: American Society of Civil Engineers, 345 East 47th Street, New York, New York 10017 (Phone 212-705-7543; FAX 212-421-1826; Telex 422847 ASCE UI).

September 12-14. **ENVIRONMENTAL HEALTH RISK EDUCATION FOR CHILDREN: CURRICULA CONCEPTS, STRATEGIES AND RESOURCES, Holiday Inn Crowne Plaza, Arlington, Virginia.** Sponsored by the Interagency Task Force on Environmental Cancer and Heart and Lung Disease. Poster paper abstracts are being solicited in four areas: analyzing the current status of environmental health risk education; teaching concepts and critical thinking skills in environmental health risk education; identifying and overcoming barriers to effective health risk education; and networking for disseminating instructional materials and implementing programs. Abstracts must be received at Eastern Research Group no later than July 2. Exhibits on available resources for environmental health risk education (publications, curricula, etc.) are also being solicited. Deadline for application to exhibit is July 18. Please contact: Eastern

Research Group (ERG), 6 Whittemore Street, Arlington, Massachusetts 02174 (Phone 617-641-5346; FAX 617-648-3638).

September 12-14. **GLOBAL ENVIRONMENTAL SOLUTIONS CONFERENCE & EXPOSITION, Santa Clara Convention Center, 5001 Great America Parkway, Santa Clara, California.** Organized by EnSol90 to provide a global forum for international hazardous waste specialists that will explore, debate and find solutions to the mounting challenges facing this country today. For further information, please contact Rachele Scheinbach or Ursula Barril, EnSol90, Global Environmental Solutions, 13555 Bel-Red Road, Suite 207, Bellevue, Washington 98005 (Phone 206-643-7410; FAX 206-643-0623).

September 13-14. **MANAGING COMPENSABLE DISABILITY IN THE 1990'S, Park City, Utah.** Course offered by Rocky Mountain Center for Occupational and Environmental Health at the University of Utah for insurance claims adjustors, risk managers, attorneys, medical doctors, occupational therapists, and physical therapists. Course director is Dick Johns. Tuition is \$200. For further information, contact: RMCOEH, CE Program Coordinator, University of Utah, Building 512, Salt Lake City, Utah 84112 (Phone 801-581-5710).

September 30-October 4. **AMERICAN PUBLIC HEALTH ASSOCIATION ANNUAL MEETING, New York City.** The theme is "Forging the Future—The Year 2000 Health Objectives," featuring an excellent book display, presentations of professional papers, and exhibition booths by private and public (including governmental) organizations on their work related to public health issues. SRA members may be particularly interested in papers sponsored by the Environment and Occupational Health Sections, among whose members there is considerable interest in risk analysis. Registration forms for the meeting and hotel reservations will be in the summer issue of the American Journal of Public Health (AJPH).

October 2-4. **HAZTECH INTERNATIONAL 90, David L. Lawrence Convention Center, Pittsburgh.** The Institute for International Research sponsors this conference and exhibition focusing on basic and advanced recycling, marketing of recyclable goods, incineration and waste to energy, and landfill issues. Contact: Neal Schwartz, Executive Director, Institute for International Research - Bellevue, 13555 Bel-Red Road, Bellevue, Washington 98009 (Phone 1-800-468-7644 [206-746-4173 in Washington and internationally]; FAX 206-643-2146).

October 7-10. **ANNUAL MEETING OF THE SOCIETY FOR RISK ANALYSIS, Intercontinental Hotel, New Orleans, Louisiana** (see article in this issue).

October 16-18. **CONFERENCE ON CHEMICAL RISK ASSESSMENT IN THE DoD: SCIENCE, POLICY, AND PRACTICE, Holiday Inn Conference Center, Dayton, Ohio.** Sponsored by the Air Force Harry G. Armstrong Aerospace Medical Research Laboratory, the Naval Medical Research Institute Detachment (Toxicology), and the Army Biomedical Research and Development Laboratory, with the cooperation of the National Research Council Committee on Toxicology. The goals of the conference are to promote exchange of information between those who develop chemical risk assessment methodologies and

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**Note:** Contributions to the newsletter should be faxed to  
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## Calendar of Events

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those who perform chemical risk assessment for the DoD. Invited presentations by noted individuals in the field and a poster session for studies relevant to the conference theme will be featured. Individuals interested in presenting a poster should contact the conference coordinator. Abstracts must be received by July 1, 1990. For further information, please contact Ms. Lois Doncaster, Conference Coordinator, NSI Technology Services Corporation, 101 Woodman Drive, Suite 12, Dayton, Ohio 45431 (Phone 513-258-1150).

October 22-26, 1990, through July 1-5, 1991. MANAGEMENT OF SAFETY, HEALTH & ENVIRONMENT; RISK ASSESSMENT AND CONTROL, Delft, The Netherlands. Nine-week postgraduate course (one week per month) for safety managers on an academic level, presenting an integrated approach to safety by combining technological, management, and practical aspects and human factors. Offered by TopTech Studies in affiliation with Delft University of Technology. Successful completion of studies results in "Chartered Engineer" diploma. Course directors: A.R. Hale and F. Koornneef, Safety Science Group, Delft University of Technology. For more information, please contact: TopTech Studies, P.O. Box 5048, 2600 GA Delft, The Netherlands (Phone +31 15 788019; FAX +31 15 781009).

November 22-23. ENVIRONMENTAL RISK MANAGEMENT: THE EUROPEAN CASE, Kiev, USSR. Organized by SRA-Europe and the Committee for Systems Analysis of the USSR Academy of Sciences (Working Group for Risk Analysis and Safety). [See SRA-Europe article in this issue.]

November 30-December 1. THIRD ANNUAL CONFERENCE OF SRA-JAPAN, Institute of Public Health, Tokyo. [See SRA-Japan article in this issue.]

December 3. SYMPOSIUM ON FIRE HAZARD AND FIRE RISK ASSESSMENT, San Antonio, Texas. Sponsored by ASTM Committee E-5 on Fire Standards. Contact Marcelo M. Hirschler, BFGoodrich, Technical Center, P.O. Box 122, Avon Lake, Ohio 44012 (Phone 216-933-1789; Fax 216-933-0563).

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