

RISK *newsletter*

Published by the SOCIETY for RISK ANALYSIS

Vol. 5, No. 1

August, 1985

OCTOBER 7-9: SRA 1985 ANNUAL MEETING TO FOCUS ON "ENHANCING RISK MANAGEMENT"

"Enhancing Risk Management" in all three of its major disciplinary areas will be the focus of sessions conducted during the three-day annual meeting of the Society for Risk Analysis, which will be held October 7-9 at the Radisson Mark Plaza Hotel in Alexandria, Virginia. Lester B. Lave, a professor of economics at Carnegie-Mellon University and SRA's president-elect, is general chairman of the meeting, and members of the society's National Capital Area Chapter will be the hosts. Alan Moghissi, Institute for Regulatory Science, is the general program chairman, and Janice D. Longstreth, INF Inc., is technical program chairman. Longstreth is also technical program coordinator for the sessions on health and environmental issues. Other technical program coordinators are Lee R. Abramson, Nuclear Regulatory Commission, who is handling the sessions on engineering and statistics, and Vincent T. Covello, National Science Foundation, who is coordinating the sessions on social and policy issues. The chairman of the local arrangements committee is Jerry Chandler, Food and Drug Administration, and the chairman for publicity and publications is Richard Cothorn, Environmental Protection Agency.

LESTER B. LAVE IS SRA PRESIDENT-ELECT

Lester B. Lave of the Carnegie-Mellon University, Pittsburgh, PA, is president-elect of the Society for Risk Analysis and will assume office as the 1985-86 president at the society's annual meeting in October. A professor of economics and public policy in Carnegie-Mellon's Graduate School of Industrial Administration, Lave received his B.A. from Reed College in 1960 and his Ph.D. from Harvard University in 1963. He has taught at Harvard University, Northwestern University, and the University of Pittsburgh and was chair of the Department of Economics of Carnegie-Mellon from 1971 to 1978. He has also been a senior fellow in the Economic Studies Program at the Brookings Institution (1979-1982).

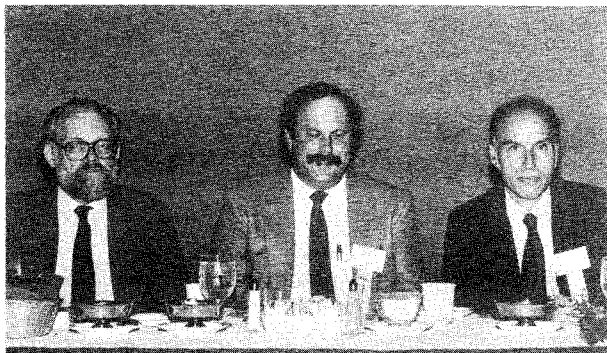
Over the years Lave has been engaged in policy research projects in a number of areas — health care, the environment, automobile safety, bargaining behavior, the value of information dissemination, and energy, among other social issues. In addition, he has been a consultant to numerous government agencies and private firms and has authored many publications, including three recent books: *The Strategy of Social Regulation*, *The Scientific Basis of Health and Safety Regulation*, and *Quantitative Risk Assessment for Regulation*.

As in previous years, the annual meeting will feature parallel sessions in each of the three areas of risk analysis addressed by the society. Tentative session titles for the three days and the names of the session chairmen are given on page 2.

Monday Afternoon Awards Session

A special session of the society will be held on Monday afternoon, at which time a Distinguished Contribution Award will be presented to an individual who has made an outstanding contribution to the theory and/or application of risk analysis in one of the three major areas of the risk analysis field. The Distinguished Contribution Award was inaugurated at the 1984 annual meeting, where an award was given in each of the three major areas. This year, and in future years, the award will be presented in only one of the areas.

Nominations for this year's award were solicited by the Awards Committee last March, at the same time the Call for Papers for the annual meeting was issued. The Awards Committee consists of SRA's three past presidents: Paul Slovic (chairman), Decision Research; Chris Whipple, Electric Power Research Institute; and Robert Cumming, Oak Ridge National Laboratory.



ATTENDING SRA's 1984 ANNUAL MEETING, Oct. 1-3, in Knoxville, TN. Shown above left are the society's first three presidents: **Robert B. Cumming (1981-82)**, Oak Ridge National Laboratory, Oak Ridge, TN; **Chris G. Whipple (1982-83)**, Electric Power Research Institute, Palo Alto, CA; and **Paul Slovic (1983-84)**, Decision Research, A Branch of Perceptronics, Inc., Eugene, OR. To the right 1984-85 President **Elizabeth L. Anderson**, Director of the U. S. Environmental Protection Agency's Office of Health and Environmental Assessment, talks with NRC Commissioner **Frederick Bernthal**, who gave the Monday evening banquet address, and **A. R. Buhl** of the East Tennessee Chapter. Approximately 300 persons attended the annual meeting, which used the theme "Uncertainty in Risk Assessment, Risk Management and Decision Making."

TENTATIVE SESSION TITLES FOR 1985 ANNUAL MEETING

(Session chairmen listed below titles)

MONDAY, OCTOBER 7

Engineering and Statistics

- Advances in PRA Techniques
Joseph Murphy, Nuclear Regulatory Commission
- Decision Analytic and Probabilistic Techniques
Richard Mensing, Lawrence Radiation Laboratory
- New Safety Insights for Nuclear Power Reactors
Anthony Buhl, Energex

Society and Policy Issues

- Nonregulatory Approaches to Risk Management
Steven Swanson, American Petroleum Institute
- Risk Management: The International Scene
Leonard Hamilton, Brookhaven National Laboratory
- Improving the Set of Regulatory Approaches to Risk Management
Kenneth Solomon, Rand Corporation

Health and Environmental Issues

- The Challenges of Communicating Health Risk Assessment
Richard Cothorn, Environmental Protection Agency
- New Approaches to Risk Assessment
Jerry Stara, Environmental Protection Agency
- Improving Dose-Response Relationships
Janice Longstreth, ICF Inc.

TUESDAY, OCTOBER 8

Engineering and Statistics

- Practical Risk Management
E. L. Zabroski, Electric Power Research Institute
- Dealing with Uncertainty in Risk Regulation
Chauncey Starr, Electric Power Research Institute
Chris Whipple, Electric Power Research Institute
- The Use of Expert Judgement in Risk Studies
George Apostolakis, University of California Los Angeles
- Evaluation of Risk Reduction
Alan Kneese, Resources for the Future

Social and Policy Issues

- Enhancing Risk Management by Focusing on the Local Level
June Fessenden-Raden, Cornell University
- Public Perceptions of Risk
Paul Slovic, Decision Research
- Risk Assessment/Risk Management: A Case Study
Elizabeth Anderson, Environmental Protection Agency
- Risk Assessment Policy
Alan Moghissi, Institute for Regulatory Science

(cont. on page 3)

OCTOBER WORKSHOP ON RISK ANALYSIS IN DEVELOPING COUNTRIES TO BE HELD IN INDIA

The Society for Risk Analysis will co-sponsor a five-day Workshop on Risk Analysis in Developing Countries at the Administrative Staff College of India in Hyderabad, India Oct. 27 to Nov. 1. Since risk analysis has been almost exclusively used and studied in the context of developed economies, the overall purpose of this workshop is to discuss the relevance of current risk analysis methods to the developing countries, where the risks to health and the environment appear to be greater than they are in the developed countries.

The workshop has several specific objectives: to bring together researchers from both developing and developed nations to exchange information on the scope and boundaries of risk analysis and on the strengths and limitations of current methods and approaches of risk analysis; to critically review the suitability and applicability of health and environmental risk analysis methods and approaches for developing nations; to analyze specific case studies and derive lessons and guidelines from them; to encourage collaborative research projects by scientists from developed and developing countries; and to encourage the development of risk analysis expertise in developing countries.

Case Studies Selected

Approximately one-half of the workshop will be devoted to technical sessions in which the methods for risk assessment and management will be discussed,

with the remainder of the time spent on case studies. The case study topics will be nuclear power generation in developing countries; hazardous waste disposal; pesticide application; and development and geological hazard.

Organizers and Sponsors

The workshop is being organized jointly by the Centre for Environmental Management and Planning (CEMP), University of Aberdeen, Scotland, and the Administrative Staff College of India. The directors are V. Covello of the U.S. National Science Foundation, B. Bowonder of the Administrative Staff College of India, R. Bisset of CEMP, and V. R. R. Uppuluri, Oak Ridge National Laboratory, USA.

In addition to SRA, sponsors of the workshop include the International Atomic Energy Agency; UNESCO; the Department of Environment, India; the US Environmental Protection Agency; and the Federal Environmental Assessment Review Office, Canada.

Applications for Participation

Plans are being made to accommodate about 80 participants at the workshop. The closing date for applications is Oct. 1; thereafter, applications will be accepted only if openings are still available. To apply, send information on your work in your current position,

(cont. on page 7)

1985 ANNUAL MEETING (cont. from page 2)

Health and Environmental Issues

Risk Assessment and Cancer Risk Management: The Search for a More Uniform and Effective Cancer Regulatory Policy

Ray Albert, University of Cincinnati

The Chemistry Industry's View of Exposure Analysis

Timothy O'Leary, Chemical Manufacturers Association

WEDNESDAY, OCTOBER 9

Engineering and Statistics

Risk Assessment in the Private Sector

Walter Albers, Jr., GM Research Laboratories

Richard Swing, GM Research Laboratories

Empirical and Ethical Aspects of Automobile Fatalities

Stuart Sticker, University of Connecticut

Tools for Risk Management

Ernest Lofgren, Science Applications International Corporation

Wednesday Luncheon Address: Risk Assessment at General Motors, *Marina Whitman, Group Vice-President, General Motors.*

Social and Policy Issues

Managing High Risk Workers: Scientific, Ethical and Policy Issues

Roger Kasperson, Clark University

Communicating Risk Information

Vincent Covello, National Science Foundation

Benjamin Buchbinder, Nuclear Regulatory Commission

Dimensions in Risk Management

Lester Lave, Carnegie-Mellon University

Health and Environmental Issues

Toxicology Information, Models and Methods

Henry Kissman, NLM

Deliberate Release of Genetically Engineered Organisms: Approaches to Risk Assessment and Risk Management

Vlasta Molak, Environmental Protection Agency

What Are the Risks of Current Acid Deposition Levels? Should These Risks Be Controlled?

Paul Moskowitz, Brookhaven National Laboratory

DEISLER, KUNREUTHER NOMINATED FOR PRESIDENT-ELECT

Paul F. Deisler, Jr., Shell Oil Company, and Howard Kunreuther, The Wharton School at the University of Pennsylvania, are the nominees for 1985-86 president-elect of the Society for Risk Analysis. The election is currently in progress, with ballots to be returned by August 23.

Deisler, who is located in Houston, Texas, has B.S. and M.S. degrees in chemical engineering from Texas A&M University and a Ph.D. in chemical engineering from Princeton University (1952). At Shell Oil he is vice-president for health, safety, and the environment and is currently engaged in chemical risk management studies.

Kunreuther, who has served as the society's treasurer for the last two years, has an A.B. in economics from Bates College and a Ph.D. in economics from the Massachusetts Institute of Technology (1965). He is presently a professor of decision sciences at The Wharton School, where in 1983 he received the Wharton Graduate Teaching Excellence Award.

Brown, Gough for Secretary

Nominees for a two-year term as secretary of the society are Stephen L. Brown, National Academy of Sciences/National Research Council, and Michael Gough, Office of Technology Assessment, U. S. Congress. Brown has a Ph.D. in physics (Purdue University, 1963) and Gough has a Ph.D. in biology (Brown University, 1966).

Boykin, Swanson for Treasurer

Nominees for a two-year term as secretary of the society are Raymond F. Boykin, Monsanto Company, St. Louis, and Steven M. Swanson, American Petroleum Institute. Boykin, who served as general program chairman for SRA's 1984 annual meeting, has an M.S. in operations research/management of science (San Diego State University). Swanson has a Ph.D. in economics (University of Utah, 1973) and is currently an SRA council member (see below).

Three 1988 Council Members to be Elected

Three new council members will be elected to serve until 1988. Outgoing council members are Joyce C. McCann, who is completing a three-year term, and Anthony R. Buhl and Steven Swanson, both of whom are completing one-year appointments. Buhl and Swanson replaced Lester B. Lave, who was chosen as president-elect, and David G. Hoel, who resigned because of other commitments.

THIRD SRA CHAPTER BEING FORMED IN MASSACHUSETTS

A founding meeting for a New England Chapter of the Society for Risk Analysis was held in Cambridge, Massachusetts on June 3. The meeting was attended by 34 persons who heard Michael Deland, Regional Administrator of the Environmental Protection Agency, speak on "Environmental Risk Management — from Theory to Reality." In a discussion following the address, the attendees elected a nominating committee and determined that the proposed chapter should maintain a practical focus with emphasis on applications of risk analysis and management rather than on theory. The group expects to have an elected slate of officers by September and to apply for chapter status at SRA's 1985 annual meeting. If approved, the New England Chapter will be the third local chapter of the society, joining the National Capital Area Chapter, which was the first, and the East Tennessee Chapter.

Joseph Fiksel, Manager of Decision and Risk Management at Arthur D. Little, Inc. in Cambridge, says that approximately 150 invitations to the chapter's founding meeting were issued to individuals and companies in the Boston area. Only about one-half of those attending were already members of the national society, with many others joining the society subsequent to the meeting. Anyone wanting additional information on the chapter may write to Fiksel at 35 Acorn Park, Cambridge, MA 02140.

The new chapter expects to host next year's annual meeting of the national society, which will be held November 9-12, 1986 at the Park Plaza Hotel in Boston.

The three pairs of nominees for the 1988 openings are Peter Barton Hutt, Covington & Burling, Washington, D.C., vs. Miller B. Spangler, Nuclear Regulatory Commission; Talbot Page, California Institute of Technology, vs. Rae Zimmerman, New York University; and Anthony R. Buhl, Energex, Oak Ridge, TN, vs. B. John Garrick, Pickard, Lowe, and Garrick, Irvine, CA.

Other council members are Francis Fagnani, M. Granger Morgan, and Arthur C. Upton, who will be completing their terms in 1986; and Vincent T. Covello, Samuel C. Morris, and M. Elisabeth Pate-Cornell, who will be serving until 1987.

Nominating Committee

Society members who served on the nominating committee were Chris Whipple (chairman), Electric Power Research Institute; Paul Slovic, Decision Research; and Margaret Chu, Environmental Protection Agency.

THANKS TO THESE

SRA wishes to express its gratitude to the following three members who are completing terms on the society's Executive Committee:

—**Michael S. Baram**, Bracken and Baram, Boston, who has served two years as the society's secretary.

—**Howard Kunreuther**, The Wharton School, University of Pennsylvania, who has served two years as the society's treasurer.

—**Paul Slovic**, Decision Research, Eugene, Oregon, who has served three years on the Executive Committee as president-elect, president, and past president.

Thanks also are due to the following outgoing council members:

—**Joyce C. McCann**, Lawrence Berkeley Laboratory, who has served three years.

—**Anthony R. Buhl**, Energex, Oak Ridge, TN, who has served one year.

—**Steven Swanson**, American Petroleum Institute, who has served one year.

In addition, appreciation is expressed to those members who have served during the 1984-85 year on various SRA committees:

—**Finance:** Howard Kunreuther (chair), Steve Swanson, Rudy Yaksick, Paul Diesler, Tony Buhl, and Lee Abramson.

—**Annual Meeting:** Lester Lave (chair), Ray Boykin, Vince Covello, Granger Morgan, Howard Kunreuther, Michael Cullingford, Alan Moghissi, and Elizabeth Anderson.

—**Nominations:** Chris Whipple (chair), Paul Slovic, and Margaret Chu.

—**Membership:** Herbert Inhaber (chair), Richard Schwing, Michael Cullingford, Carolyn Heising, Randy Roth, and Bruce Randall.

—**Publications:** Vince Covello (chair), Ram Uppuluri, Curtis Travis, and Joyce McCann.

—**Education:** Alan Moghissi (chair), Paul Slovic, Vince Covello, Ram Uppuluri, Chris Whipple, and Rae Zimmerman.

—**Liaison:** Granger Morgan (chair), Steve Swanson, Paul Amico, Chris Van Schayk, and Andrew Sivak.

—**Special Projects:** Elizabeth Pate-Cornell, Gordon Newell, and Joyce McCann.

—**Management:** Michael Baram (chair), Lester Lave, Howard Kunreuther, Vince Covello, Paul Deisler, and Andrew Sivak.

—**Plenum:** Vince Covello (chair), Elizabeth Anderson, Lester Lave, Paul Slovic, and Curtis Travis.

—**Awards:** Paul Slovic (chair), Chris Whipple, and Robert Cumming.

—**Research Support:** Paul Slovic (chair).

—**Public Affairs:** Lester Lave (chair).

—**Sustaining:** Steve Swanson (chair), Richard Burk, and Howard Kunreuther.

—**Definitions:** Larry Gratt (chair).

NATIONAL CAPITAL AREA CHAPTER SPONSORS WORKSHOP, SEMINARS

Approximately 60 persons attended a May 29-30 Workshop on De Minimus Risk planned by the National Capital Area Chapter of SRA and co-sponsored by the national SRA, the Environmental Protection Agency, the Electric Power Research Institute, and the Nuclear Regulatory Commission. Held at Brookings Institution and featuring 22 speakers, the Workshop addressed "Legal, Social and Ethical Issues" and "Science and Methodological Issues" in first-day sessions dealing mainly with theory. Second-day sessions dealt with the applications of risk analysis methods from the perspectives of several agencies. The participating agencies were EPA, NRC, the National Council on Radiation Protection, the Occupational Safety and Health Administration, the Food and Drug Administration, and the National Science Foundation. Janice Longstreth, president of the National Capital Area Chapter, headed the local arrangements committee and Chris Whipple, Steve Swanson, Peter Hutt, Alvin Weinberg, Daniel Byrd, Alvin Young, Vince Covello, Joshua Menkes, and Rich Guimond chaired the sessions.

Chapter to Host SRA Annual Meeting

The National Capital Area Chapter will be hosting the 5th Annual Meeting of the Society for Risk Analysis on Oct. 7-9 at the Radisson Mark Plaza Hotel in Alexandria, VA (see story on page 1).

Chapter Hears OSTP's Young, CBS's Ward

Two seminars have been sponsored by the National Capital Area Chapter in recent months: an April 11 address by Alvin Young, Office of Science and Technology Policy; and a March 6 address by Jonathan Ward, executive producer of the CBS's "Face the Nation" program and Walter Cronkite's "Universe" program. Young spoke on "Risk Assessment in the Federal Government" and Ward spoke on "The Risk of Discussing Risks on National Television."

Swanson Is President-Elect

Steven Swanson of the American Petroleum Institute is the new president-elect of the National Capital Area Chapter. Lee Abramson of the NRC and Penelope Fenner-Crisp of the EPA were elected treasurer and incoming council member, respectively.

PUBLICATION: *Risk Management of Existing Chemicals*, proceedings of a Chemical Manufacturers Association seminar, Publication No. 565, Government Institutes, Inc., 966 Hungerford Drive, # 24, Rockville, MD, 20850.

EAST TENNESSEE CHAPTER HAS SECOND "METHODS DAY"

The East Tennessee Chapter of SRA conducted its second "Risk Analysis Methods Day" on March 26 with emphasis on the biological and health sciences. During the "Day," held at Oak Ridge Associated Universities, four papers were presented (on oncogenes, Tennessee water quality programs, benzene hazard studies, and the psychosocial effects of risk and disaster) and were followed by a panel discussion on risks in biotechnology. Peter Groer of the Center for Epidemiologic Research at ORAU chaired the paper session, and Terry Donaldson, Coordinator for Biotechnology at Oak Ridge National Laboratory, moderated the panel discussion. The chapter plans to continue the Methods Day as an annual event.

Chapter Is a WATtec Participant

The East Tennessee Chapter also has officially joined other technical societies in the area who sponsor an annual energy conference each February in Knoxville, TN. Called WATtec, the conference features numerous concurrent technical sessions and several general sessions on various energy topics over a four-day period. At the 1985 conference, SRA sponsored a half-day session on "Potential Large-Scale Societal Risks" and is considering sponsoring a 1986 session on "Ethics of Technology." Joseph W. Minarick, Science Applications International Corporation, is SRA's representative on the WATtec Sponsors Committee.

Communicating Risk a Chapter Concern

A primary concern of the East Tennessee Chapter is how scientists and the media can best communicate risks to the public. Toward this end, the chapter is planning a second symposium on the subject of "Risk, the Media, and Society" (date not yet determined) and is exploring methods for introducing risk assessment in elementary school curricula. Sam A. Carnes, Oak Ridge National Laboratory, is chairman of the Public Education Committee.

Groer Assumes Presidency

Peter Groer, chosen president-elect of the chapter in the fall of 1984, will assume the presidency from George Flanagan this fall. Elections for other officers are in progress.

CALENDAR OF EVENTS

—Aug. 26–27. INTERNATIONAL SEMINAR ON THE ROLE OF DATA AND JUDGMENT IN PROBABILISTIC RISK AND SAFETY ANALYSIS, Brussels, Belgium. Four panels of international experts will discuss the use of Bayesian and frequentist methods in PRA, the role of perceptions and assumptions in modeling a nuclear plant and how PRA can be used in decision making. Seminar will follow the 8th International Conference on Structural Mechanics in Reactor Technology (SMIRT-8) during which (August 19-23) there will be five sessions on risk analysis. Seminar and SMIRT-8 are both sponsored by the Commission of the European Communities and the International Association for Structural Mechanics in Reactor Technology. Contacts: G. Apostolakis, 5532 Boelter Hall, UCLA, Los Angeles, CA, 90024, Phone (213)825-1300; P. Kafka, Gesellschaft für Reaktorsicherheit (GRS) mbh, D-8046 Garching, Germany, Phone (089)32004175.

—Sept. 9–11. RISK ANALYSIS IN ENVIRONMENTAL HEALTH—WITH EMPHASIS ON CARCINOGENESIS, Harvard University, School of Public Health. Fee: \$525 (includes daily luncheons and refreshments and an evening dinner.) Course will introduce the problem of risk analysis in the context of calculating risks when data are uncertain. The methodologies for risk evaluation and the interplay of risk evaluation and risk assessment will be discussed. Introductory sessions will be devoted to an overview of techniques for assessing environmental cancer risks. Subsequent sessions will focus on health risks associated with chemical contaminants in the ambient environment, with emphasis on using risk assessments in setting priorities for sampling and analysis. This will be followed by a review of the necessity for sampling the indoor as well as the outdoor (ambient) environment, a discussion of the application of a risk-based approach to the establishment of radiation protection standards, and a commentary on the responsibilities of the scientific community in risk assessment. Course lecturers will include experts from within the several Schools of Harvard University and from outside organizations. Course directors are Richard Wilson, Harvard University, and Dade W. Moeller, Harvard School of Public Health. To apply for course, write to Office of Continuing Education, Dept. A, Harvard University, School of Public Health, 677 Huntington Ave., Boston, MA 0215, Phone (617)732-1171.

—Oct. 7–9. FIFTH ANNUAL MEETING OF THE SOCIETY FOR RISK ANALYSIS, Radisson Mark Plaza Hotel, Washington, D.C. Theme: Enhancing Risk Management. (See story in this newsletter.) Contact: L. B. Lave, GSIA, Carnegie-Mellon University, Pittsburgh, PA, 15213; or Janice Longstreth, ICF, Inc., 1850 K. St., Washington, D.C., 20006, Phone (202)862-7915.

—Oct. 22–24. SAFETY OF HIGH-LEVEL WASTE REPOSITORIES, Washington, D.C. Sponsored by Disposal Safety Inc. Fee: \$500. Course will provide an overview of the factors that can affect repository safety, the methods used to evaluate them, and the legal framework in which decisions about repository safety are to be made. For researchers, engineers, and managers already working in the high-level waste field and also for those newly involved in the area. Contact: Disposal Safety Inc., 1211 Connecticut Ave., NW, Suite 610, Washington, D.C. 20036, Phone (202)293-3993. (cont. on page 8)

CLARK UNIVERSITY, Worcester, MA, has recently begun offering an M.A. degree in Technology Assessment and Risk Analysis in its Environment, Technology and Society (ETS) Program, which was already supporting an undergraduate major and offering an M.A. degree in Environmental Affairs. Clark is also the home of CENTED (Center for Technology, Environment, and Development). For information on these programs, write to Chris Hohenemser, Chair, ETS Program, CENTED, Clark University, Worcester, MA, 01610.

JOURNAL CONTENTS (cont.)

Continuing a tradition of the newsletter, we reprint the tables of contents of the SRA journal *Risk Analysis*. The contents for the first three issues of the year 1985 are given below. Manuscripts to be submitted to the journal should be mailed to: Dr. Curtis Travis, Editor, Risk Analysis, Bldg. 4500S, S204, Oak Ridge National Laboratory, PO Box X, Oak Ridge, TN, 37831.

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Nathan Mantel	Letter to the Editor
Todd Thorslund	Letter to the Editor
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Lester B. Lave Joshua Menkes	Managing Risk: A Joint US-German Perspective
Paul Wasielewski Leonard Evans	Do Drivers of Small Cars Take Less Risk in Everyday Driving?
Mardyros Kazarians Nathan O. Siu George Apostolakis	Fire Risk Analysis for Nuclear Power Plants: Methodological Developments and Applications
M. C. Bastien M. Dumas J. Laporte N. Parmentier	Evacuation Risks: A Tentative Approach for Quantification
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Chauncey Starr	Risk Management, Assessment, and Acceptability
<i>ARTICLES:</i>	
Vincent Covello Jeryl Mumpower	Risk Analysis and Risk Management: A Historical Perspective
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Paul D. Moskowitz	Synthetic-Fuel Plants: Potential Tumor Risks to Public Health
Max Henrion M. Granger Morgan	A Computer Aid for Risk and Other Policy Analysis
Kenneth A. Solomon Pamela F. Nelson James Chiesa	An Evaluation of Alternative Safety Criteria for Nuclear Power Plants
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Cheryl Brown Travis	Medical Decision Making and Elective Surgery: The Case of Hysterectomy
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F. E. Burke	Risk Analysis and Decision Processes

WORKSHOP IN INDIA (cont. from p.3)

biographical data (including experience and publications in risk analysis, if any), and a passport-sized photograph to the address given below. It is hoped that when you attend you will also bring display material (reports, etc.). The application should be accompanied by a check covering the workshop fee (\$400 USA) and made payable to "CEMP/Risk Workshop." The closing date for application is Oct. 1; however, late applications will be accepted if openings exist. Applications should be mailed to:

Mrs. Sandra M. Ralston/Mrs. Lynda Kingham
CEMP, Department of Geography
University of Aberdeen
Old Aberdeen AB9 2UF
Scotland, UK

Tel: Aberdeen (0224) 40241 Ext. 5188/6515
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Risk newsletter
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The Society for
Risk Analysis.

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Michael S. Baram, Secretary, 1983-85
Howard Kunreuther, Treasurer, 1983-85
Paul Slovic, Past President, 1983-84

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Joyce C. McCann, 1985
Steven Swanson, 1985
Francis Fagnani, 1986
M. Granger Morgan, 1986
Arthur C. Upton, 1986
Vincent T. Covello, 1987
Samuel C. Morris, 1987
M. Elisabeth Pate-Cornell, 1987

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Note: Contributions to the newsletter should be mailed
to the editors at following address:

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P.O. Box X, Oak Ridge, TN, 37831, USA

CALENDAR OF EVENTS (cont. from p.6)

—Oct. 27 – Nov. 1. WORKSHOP ON RISK ANALYSIS IN
DEVELOPING COUNTRIES. (See story on page 3.)

—Nov. 10–13. SIXTH ANNUAL MEETING OF SOCIETY
OF ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY,
Marriott's Pavilion Hotel, St. Louis, MO. Meeting Theme: New
Perspectives in Environmental Toxicology and Chemistry. Pro-
gram Chairman: J. H. Rodgers, Jr., Institute of Applied Sciences,
Dept. of Biological Sciences, North Texas State University, Den-
ton, TX, 76203, Phone (817)565-2694. Poster Session Chairman:
W. J. Adams, Monsanto Industrial Chemical Company, 800
North Lindbergh Boulevard, St. Louis, MO, 63167, Phone
(314)694-4407.

—May 14–17, 1986. INTERNATIONAL SYMPOSIUM ON
FLOOD FREQUENCY AND RISK ANALYSES, Dept. of Civil
Engineering, Louisiana State University, Baton Rouge, LA. Co-
sponsored by SOCIETY FOR RISK ANALYSIS. Will feature
original and state-of-the-art papers on both theoretical and practi-
cal aspects of flood frequency and risk analyses. Symposium
Director, V. P. Singh; Co-director, T. H. Illangasekare. For more
information, write to director or co-director at the university,
Baton Rouge, LA, 70803, Phone (504)388-6697.

—Nov. 9–12, 1986. SIXTH ANNUAL MEETING OF THE
SOCIETY FOR RISK ANALYSIS, Park Plaza Hotel, Boston,
MA.

REMINDER

Renew your membership in the Society for
Risk Analysis by sending your dues (\$38) to
the Secretariat at the address given in the
above box.

Also, inform your associates that they may
request a membership application form from
the Secretariat.

NOTICE: A series of IBM JR/PC/XT/AT interactive computer
programs (color graphics needed) are available for exploring and
researching the role of computers in risk communications and
management. The programs type the cognitive style of the indivi-
dual, risk adverse or seeking in the 10E-6 range, and exercises
availability, overconfidence, weighting and framing biases in
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