

# RISK

## newsletter

Published by the SOCIETY for RISK ANALYSIS

Vol. 4, No. 21

August, 1984

### SRA TO INAUGURATE ANNUAL AWARDS AT OCT. 1-3 MEETING

A highlight of the opening session of the 4th annual meeting of the Society for Risk Analysis, to be held at the Hyatt-Regency Hotel in Knoxville, Tennessee, October 1-3, will be the presentation of the Society's first Distinguished Contribution Awards to three outstanding contributors to risk analysis: Dr. Roy Albert, Institute of Environmental Medicine, New York University Medical Center; Professor Howard Raiffa, Harvard University; and Dr. Chauncey Starr, Electric Power Research Institute. Pictures of the recipients and their citations are given on pages 2 and 3 of this newsletter.

#### ELECTION BALLOTS DUE SEPTEMBER 7

Ballots listing nominees for the 1984-85 officers of the Society have been mailed to the membership and are to be returned to the Secretariat by September 7. The results of the election will be announced at the Oct. 1-3 annual meeting.

Officers to be elected this year are the president-elect and three members of the SRA Council. The president-elect will join next year's president, Elizabeth L. Anderson, and Secretary Michael S. Baram and Treasurer Howard Kunreuther on the SRA Executive Committee. (Baram and Kunreuther were elected to two-year terms in 1984.)

The newly elected Council members will each serve three-year terms. Other members of the council are three members serving until 1985 (David Hoel, Lester Lave, and Joyce McCann); three serving until 1986 (Francis Fagnani, M. Granger Morgan, and Arthur C. Upton); the immediate past president, Paul Slovic; and members of the Executive Committee. Council members completing their terms this year are Vincent T. Covello, Michael C. Cullingford, and Andrew Sivak.

The nominees for this year's election are the following:

**President-elect:** Lester B. Lave, Carnegie-Mellon University; and Roger O. McClellan, Lovelace Inhalation Tox. Res. Inst. (cont. on page 5)

The Distinguished Contribution Award was established by the SRA Council at its March, 1984 meeting to recognize those individuals who have made pioneering contributions to the theory and/or application of risk analysis. In future years it will be presented to only one person, but for this inaugural year of the award, one recipient has been selected from each of the major disciplinary areas of the field: the biological and health sciences (Dr. Albert), the social sciences (Professor Raiffa), and the engineering and physical sciences (Dr. Starr).

In conjunction with the awards ceremony, Drs. Albert, Raiffa, and Starr will each give an address during the special Monday morning session, which will be held from 10:30 AM until noon. The technical sessions of the meeting will begin Monday afternoon at 1:30.

#### "Uncertainty" Is Meeting Theme

The theme for the 4th annual meeting of the Society is "Uncertainty in Risk Assessment, Risk Management and Decision Making," and, in order to cover the diversified interests of SRA's membership, concurrent sessions will be held throughout the meeting in the three broad disciplines in which risk analysis is being applied. Technical coordinators for the sessions are Dr. A. Alan Moghissi (sessions on health and environment), Dr. Rae Zimmerman (social sciences), and Dr. William E. Vesely (engineering and physical science). (cont. on page 5)

## RECIPIENTS OF SRA's 1984 DISTINGUISHED CONTRIBUTION AWARDS



**Dr. Roy E. Albert**



**Professor Howard Raiffa**



**Dr. Chauncey Starr**

**DR. ROY E. ALBERT** has made important contributions to the knowledge of the epidemiological aspects of cancer and the pathophysiology of pulmonary disease. He has served on many Federal advisory groups and has been a pioneer in the development of risk assessment for carcinogens as chairman of the Carcinogen Assessment Group in the Environmental Protection Agency.

Dr. Albert is Professor of Environmental Medicine and Deputy Director of the Institute of Environmental Medicine at the New York University Medical Center. He is also vice-chairman of the Department of Environmental Medicine and director of the Institute's Laboratories of Experimental Medicine and Inhalation Toxicology. With the University since 1959, he is currently performing research in the quantitative aspects of skin carcinogenesis with ionizing radiation and chemical carcinogens and promoters; inhalation carcinogenesis; arteriosclerosis; pulmonary deposition and clearance of particles and gases; and radiation epidemiology.

Dr. Albert received his A.B. from Columbia College in 1944 and his M.D. from New York University College of Medicine in 1946. Following his internship at Bellevue Hospital Third Medical Division in 1946-47, he was in military service at the A.U.S. Medical Field Research Laboratory, Fort Knox, Kentucky. From 1949 to 1951 he returned to NYU College of Medicine under a USPHS Fellowship in Cardiovascular Hemodynamics, and from 1951 to 1952 he performed his residency in medicine at the University of the State of New York at Syracuse University Hospital. He was a medical officer with the U. S. Atomic Energy Commission from 1952 to 1956, serving as chief of the Medical Branch of the Division of Biology and Medicine from 1954 to 1956.

Dr. Albert has numerous publications in medical journals and has served on many government committees concerned with health hazards in the environment. He has been chairman of the EPA's Carcinogen Assessment Group since 1976.

**PROFESSOR HOWARD RAIFFA** is the author of several very influential books laying out the foundations of decision theory and decision analysis and showing how these powerful techniques can be applied to problems of risk and uncertainty. He was one of the founders of the International Institute for Applied Systems Analysis and its first director.

Professor Raiffa is Frank P. Ramsey Professor of Managerial Economics, a joint chair between the Graduate School of Business Administration and the Kennedy School of Government at Harvard University. He is also a member of Harvard's Department of Economics and Department of Statistics. He has held the Frank P. Ramsey chair since 1965 except for a three-year period (1972-75) during which he served as the first director of the International Institute for Applied Systems Analysis and was a visiting professor at the University of Vienna. He joined the Harvard faculty in 1957.

Professor Raiffa received his B.S., M.S., and Ph.D. from the University of Michigan in actuarial mathematics (1947), statistics (1948), and mathematics (1951), respectively. Before going to Harvard, he taught mathematical statistics at Columbia University (1952-57). During the period 1951-1956 he also did post-doctoral work in economics and psychology, served during summers as a faculty member of Special Programs in Mathematics for Behavioral Scientists (sponsored by Ford Foundation and S.S.R.C.), and was a fellow at the Center for Advanced Study in the Behavioral Sciences (1955-56). In 1959-1960 he was director of the (Ford) Institute of Basic Mathematics for Application to Business.

Professor Raiffa is widely published, having authored or co-authored a number of books and journal articles. One of his books, *Decisions with Multiple Objectives: Preferences and Value Tradeoffs* (co-authored with Ralph Keeney and published by Wiley), was cited by the Operations Research Society of America as being the best publication in operations research in 1976 and won him the Society's Lanchester Prize.

Professor Raiffa's many activities have included being a member of the Nuclear Energy Policy Study Group (sponsored by the Ford Foundation); a member of the Risk Panel of the Committee on Nuclear and Alternative Energy Sources, National Academy of Sciences/National Research Council; vice chairman of the American Academy of Arts and Sciences' Committee for liaison with the International Institute for Applied Systems Analysis; chairman of the National Academy of Sciences/National Research Council Committee on Risk and Decision Making; and a member of the Safety Advisory Board for GPU Nuclear Corporation (TMI-2 cleanup).

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**DR. CHAUNCEY STARR's 1969 article in *Science*, titled "Social Benefit vs. Technological Risk," presented a conceptual framework for risk/benefit decisions that has had an enormous impact on the field of risk analysis. Since then he has written numerous influential articles on the theory of risk analysis and its application to the management of technological risks.**

Dr. Starr is vice chairman of the Electric Power Research Institute, a position he has held since serving five years as the founding president of EPRI. From 1967 to 1973, he was dean of the School of Engineering and Applied

Science at the University of California, Los Angeles. Prior to joining UCLA, he had a 20-year industrial career, during which he was vice president of Rockwell International and president of its Atomic International Division.

Dr. Starr attended Rensselaer Polytechnic Institute, Troy, New York, where he received an electrical engineering degree in 1932 and a Ph.D. in physics in 1935. He then became a research fellow in physics at Harvard University, working with Nobelist P. W. Bridgman in the field of high pressures. From 1938 to 1941, he was a research associate in cryogenics at the Massachusetts Institute of Technology. He has received honorary Doctor of Engineering degrees from Rensselaer and from the Swiss Federal Institute of Technology.

During World War II, Dr. Starr became associated with the Manhattan District project at the Radiation Laboratory of the University of California, Berkeley, and later at Oak Ridge, Tennessee. Following the war, while at Rockwell International, he was a pioneer in the development of nuclear propulsion for rockets and ramjets, the miniaturization of nuclear reactors for space, and the development of nuclear power for the production of electricity. Subsequent activities have included energy systems of all types. For his work in the peaceful uses of atomic power, he received the Atomic Energy Commission Award in 1974, the Walter H. Zinn Award in 1979, and the Henry D. Smyth Award in 1983.

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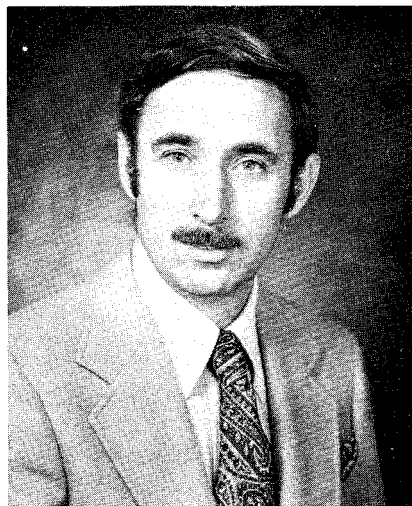
## JOURNAL EDITOR HONORED BY SOCIETY

Dr. Curtis Travis, editor of the journal *Risk Analysis*, will be presented with the first SRA Distinguished Service Award at the Society's 4th annual meeting in October. Dr. Travis is cited for his dedicated service as editor of the journal since taking over the reins from founding editor Robert Cumming. Since its inception, the journal has been recognized as a high-quality publication, and through Dr. Travis' efforts its reputation has been maintained.

Dr. Travis is the Coordinator of the Office of Risk Analysis in the Health and Safety Research Division at Oak Ridge National Laboratory, Oak Ridge, Tennessee. The Office has participated in a number of health risk assessments, including assessments on the incineration of hazardous waste, land burial of radioactive waste, synfuel plants (direct and indirect coal liquefaction), diesel exhaust, and the nuclear and coal fuel cycles. Before joining ORNL in 1976, Dr. Travis taught applied mathematics at the University of Tennessee (1974-76) and earlier at Vanderbilt University (1971-74).

Dr. Travis received his B.A. and M.A. in mathematics from California State University, Fresno, in 1966 and 1967, respectively, and his Ph.D. in mathematics from the University of California, Davis,

in 1971. He has extensive publications both in pure and applied mathematics, many of the latter concerned with the development of environmental transport methodologies for toxic chemicals.



**Dr. Curtis Travis -- To Receive Distinguished Service Award**

## JOURNAL CONTENTS ANNOUNCED

Society members should have already received the second issue of Volume 4 of the SRA journal *Risk Analysis* and they will be receiving the third issue in mid-September. The fourth issue, completing those for the year 1984, is now in the publication stage at Plenum Publishing Corporation. 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, Tennessee, 37830.

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## SOCIETY FOR MEDICAL DECISION MAKING HAS ANNUAL MEETING NOVEMBER 28-30

The Society for Medical Decision Making, an international society, will be holding its sixth annual meeting at the National Institutes of Health, Bethesda, Maryland, November 28-30, 1984. SMDM is dedicated to promoting rational and systematic approaches to decisions about health policy and about the clinical care of patients; these approaches include decision analysis, applications of quantitative methods in clinical settings and medical research, studies of human cognition and the psychology of clinical reasoning, computer aids to data processing and decision making, artificial intelligence, evaluation of medical practices and cost-effectiveness or cost-benefit assessments, and ethical issues.

The Society publishes a quarterly journal, *Medical Decision Making*, and a newsletter. This year it will also be sponsoring, in conjunction with its annual meeting, a Short Course in Medical Decision Making (on November 27 in Bethesda). For further information about the Society and its activities write to:

The Society for Medical Decision Making  
Radioisotope Laboratory  
Mail Location 577  
University Hospital  
Cincinnati, Ohio, 45267

Telephone: (513)-872-4282

**1984 ANNUAL MEETING (cont. from p. 1)**

Dr. Elizabeth Anderson, SRA president-elect, is general chairman of the meeting, Dr. Raymond Boykin is general program chairman, and Dr. Ram Uppuluri is technical program chairman. Other members of the organizing committee are Dr. Anthony R. Buhl, chairman of the local arrangements committee; Dr. William Rhyne, chairman of the finance committee, and Dr. Vincent Covello, chairman of the publications committee.

**Monday Evening Activities**

A one-hour business session of the membership will be held at 5:00 PM on Monday evening, with outgoing president Dr. Paul Slovic presiding. Immediately following the business session will be a reception, which will be followed by a banquet at 7:00 PM.

**Tuesday Morning Plenary**

A second plenary session will be held from 8:30 to 10:00 on Tuesday morning. Speakers for the session will be Dr. Buhl, vice-president and member of the board of directors of Technology for Energy Corporation; Dr. Leonard Sagan, Senior Scientific Advisor, Electric Power Research Institute; and Professor Evan Vlachos, Department of Sociology, Colorado State University.

On Tuesday evening members are invited to a "5-Cent Beer Night" from 6:00 to 8:00.

**Wednesday Special Session**

Following the Wednesday morning parallel sessions, a special final session will be held on Wednesday afternoon (1:30-3:00) on the subject "Communicating Risk." Participants in the session will be SRA President Slovic; Richard Smyser, editor of *The Oak Ridger*; and Dr. Bernard Cohen, University of Pittsburgh. The session will be chaired by Dr. Charles E. Whittle, Oak Ridge Associated Universities.

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**ELECTION (cont. from p. 1)**

**Council members:** M. Elizabeth Pate-Cornell, Stanford University, vs. Richard C. Schwing, General Motors Research Laboratories; Samuel C. Morris, Brookhaven National Laboratory, vs. Chester R. Richmond, Oak Ridge National Laboratory; and Vincent T. Covello, National Science Foundation, vs. Baruch Fischhoff, Decision Research.

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**CURRENT MEMBERSHIP:** As of August 23, 1984, the Society for Risk Analysis has 927 members. Regular membership dues are \$30 (\$10 without journal subscription). Dues for full-time students pursuing a program related to risk analysis are \$10.

**WIDE DISTRIBUTION OF SRA BROCHURE SOUGHT**

Society members wishing to tell others about SRA activities and goals now have in hand copies of a brochure on the Society prepared by Herbert Inhaber, Vincent Covello, Paul Slovic and Chris Whipple. Two copies of the brochure were sent to each member along with the call for papers for the October annual meeting. Additional copies may be obtained from Inhaber, SRA membership chairman, or at the forthcoming meeting in Knoxville, TN. (Inhaber's address is: Building 4500S, Oak Ridge National Laboratory, PO Box X, Oak Ridge, TN, 37830.)

The new brochure is a six-page leaflet (6 by 8 in.) printed on buff-colored paper with maroon lettering. (Without any apparent conscious decision by anyone, maroon seems to have become SRA's color.) The six pages focus on (1) the Society, its aims and its members, (2) who should join SRA, (3) membership classifications, (4) the wide range of topics addressed by SRA at its meetings and in its journal, (5) the advantages of membership, and (6) how to apply for membership. It points out that SRA was conceived to address broad questions of risk that span traditional disciplines; therefore, its membership includes scientists from many areas of research. But is not solely an academic organization: it is also for those who must formulate policies in government, business, and industry, and, in fact, has as its goal the cross-fertilization of disciplines and philosophical orientations.

Members of the committee who prepared the brochure hope that Society members will assist in ensuring that it receives a wide distribution. It is especially important that it be prominently displayed at allied scientific societies.

**REMINDER**

**If you have not paid your current Society dues, please send them to the following address:**

**SRA Secretariat  
1340 Old Chain Bridge Road  
Suite 300  
McLean, VA 22101**

**AS THE PUBLIC SEES IT:** According to a Louis Harris poll which looked at public perceptions of risk and was released this year, "Americans feel government has a major role to play in helping people help themselves. Sixty-four percent said government regulation is needed to protect people from dangerous products....Exposure to environmental and technological hazards ranks high on the list of risks."  
--Louise Cook, *Associated Press* staff writer.

## CALENDAR OF EVENTS

--Sept. 18-20. COURSE ON RISK ANALYSIS IN ENVIRONMENTAL HEALTH -- WITH EMPHASIS ON CARCINOGENESIS, Harvard School of Public Health. Fee: \$500. Contact: Office of Continuing Education, HSPH, Phone (617)732-1171.

--Sept. 26-29. 20th ANNUAL MEETING OF THE SOCIETY OF PROSPECTIVE MEDICINE. Theme: A Decade of Survival -- Past, Present, Future (Indy-visualized Health). Hyatt Regency, Indianapolis, Indiana. Co-chair for Local Arrangements: Suzy H. Fletcher, Phones (317)299-8629, (812)232-6311.

--Oct. 1-5. COURSE ON INDUSTRIAL TOXICOLOGY AND ENVIRONMENTAL MEDICINE, Harvard School of Public Health. Fee: \$900. Contact: Office of Continuing Education, HSPH, Phone (617)732-1171.

--Oct. 15-16. EIGHTH SYMPOSIUM ON STATISTICS AND THE ENVIRONMENT, National Academy of Sciences, Washington, D.C. Sponsored by American Statistical Association. To address problems in areas of major environmental concern and to serve as a forum for exchange of knowledge in fields concerned with environmental decision-making problems. Four sessions: data needs and problems; modeling; forecasting; and policy implications. Sessions will include presentations on hurricanes, fishery and forest management, materials damage from ambient pollution, and health damage from work place air pollution. Contact: Ede Denenberg, ASA, 806 15th St., N.W., Suite 640, Washington, DC, 20005, Phone (202)393-3253.

--Oct. 23-25. SYMPOSIUM ON ADVANCES IN HEALTH RISK ASSESSMENT FOR SYSTEMIC TOXICANTS AND CHEMICAL MIXTURES, Clarion Hotel, Cincinnati, Ohio. Organized by Life Systems, Inc., for Environmental Protection Agency. To encourage communication among scientists of various disciplines in developing new approaches toward performing health risk assessments and evaluating uncertainties and limitations of existing methods. Topics: experimental support for methods of species extrapolation, revised methods for calculations of Acceptable Daily Intake, optimum use of pharmacokinetics and of epidemiologic data, toxicology of mixtures, an initial approach toward assessment of health risk from exposures to simple mixtures, and future research needs. Contact: Michael J. Kangas, ICAIR, Life Systems, Inc., 24755 Highpoint Rd, Cleveland, OH, 44122, Phone (216)464-3291.

--Nov. 26-30. THE 22nd ANNUAL RELIABILITY ENGINEERING AND MANAGEMENT INSTITUTE, Ramada Inn, Tucson, Arizona. Conducted by Reliability Engineering and Management Institute, Aerospace and Mechanical Engineering Dept., The University of Arizona. Fee: \$750. Contact: Dr. Dimitri Kececioglu, Phones (602)621-2495, 621-6120, 297-2679.

--Nov. 27-30. SHORT COURSE IN MEDICAL DECISION MAKING (Nov. 27) and SIXTH ANNUAL MEETING OF THE SOCIETY FOR MEDICAL DECISION MAKING (Nov. 28-30), National Institutes of Health, Bethesda, Maryland. (See story on course and meeting on page 4 of this newsletter). Contact: SMDM, Radioisotope Laboratory, Mail Location 577, University Hospital, Cincinnati, Ohio, 45267.

--June 16-21, 1985. RISK ASSESSMENT/MANAGEMENT SYMPOSIUM, Detroit, Michigan. Sponsored by Risk Assessment/Management Technical Committee of the Air Pollution Control Association. Symposium will be held in conjunction with 78th Annual Meeting of APCA. Symposium coordinator: Albert Smith, Argonne National Laboratory, EES-362, Argonne, IL, 60439, Phone (312)972-3768.

## FEDERAL REGISTER NOTICES ON RISK

Vol. 49, No. 100, May 22, 1984

**Re: Chemical Carcinogens: Review of the Science and Its Associated Principles, May, 1984, Executive Office of the President, Office of Science and Technology Policy.**

**Summary:** The Office of Science and Technology Policy has prepared this draft document to be used as a framework for regulatory agencies in assessing cancer risks from chemicals. The document does not attempt to formulate policy or develop standardized methods of risk assessment. It tries to define principles, based upon current scientific information, to serve as guidelines in certain matters when considering carcinogens. The present document is the culmination of drafts extensively reviewed by governmental and nongovernmental scientists. The public is now invited to review and comment on this document prior to final publication.

**Contact:** Dr. Ronald W. Hart, Director, NCTR, Chairman, OSTP Interagency Staff Group, National Center for Toxicological Research, Jefferson, AR 72079; Phone 501-541-4000. (*Editor's Note:* Comments were to have been received by August 1.)

Vol. 49, No. 28, February 9, 1984

**Availability of NUREG-1050 (Draft for Comment): Probabilistic Risk Assessment (PRA); Status Report and Guidance for Regulatory Application**

In the plan to evaluate the NRC's Safety Goal Policy Statement (issued for comment in NUREG-0880, Rev. 1, in May 1983), the Office of Nuclear Regulatory Research was directed "... to collect available information on PRA studies and prepare a reference document that describes the current status of knowledge concerning the risks of plants licensed in the U.S. It is essential that a reference document be prepared and receive peer review so that the staff, licensees, and public have a common base of information on the dominant contributors to the probability of core melt and to the public risk due to radiation from serious nuclear accidents, the strengths and weaknesses of current plant designs and operations, and the usefulness of PRA and the safety goals in assessing such strengths and weaknesses." NUREG-1050 has been prepared in response to that directive.

**Contact:** Malcolm L. Ernst, Acting Director, Division of Risk Analysis, Office of Nuclear Regulatory Research.

**(Editor's Note:** According to the Federal Register notice, a peer review workshop to discuss the draft report was to be held in Atlanta on February 22-23 and was to be open to the public. Public comments on the draft were solicited for 45 days following the Federal Register notice. A final document was to be issued in May, 1984, and as a final step in the peer review process, the National Science Foundation was to begin reviewing the final document in the late spring.)

## NATIONAL CAPITAL AREA CHAPTER PLANNING WORKSHOP ON DE MINIMUS RISK

President Alan Moghissi reports that the National Capital Area SRA Chapter is planning a Workshop on De Minimus Risk for the spring of 1985. The workshop will be cosponsored by the Electric Power Research Institute and the Environmental Protection Agency and possibly by other organizations. Dr. Chris Whipple of EPRI is chairman of the organizing committee, which will hold its first meeting early in October. Contact for the meeting: Dr. A. Alan Moghissi, Environmental Protection Agency, Telephone (202)382-5991.

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## NATIONAL CAPITAL AREA CHAPTER HOLDING ELECTIONS

Ballots for the election of officers of the National Capital Area SRA Chapter have been mailed to chapter members. Offices to be filled are the president-elect, treasurer (2-year term), and one member of the council (2-year term). Those elected will serve with Janice Longstreth, Dynamac Corporation, who was elected 1984-85 president last year, and Jerry Chandler, United States Public Health Service Corporation, who was elected last year to a two-year term as secretary. This year's nominees are as follows:

**President-elect:** Steven Swanson, American Petroleum Institute; Constantine Zervos, Food and Drug Administration.

**Treasurer:** Lee Abramson, Nuclear Regulatory Commission; Michael Gough, Office of Technology Assessment.

**Council member:** Penelope Fenner-Crisp, Environmental Protection Agency; Paul Price, Environmental Protection Agency.

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## CUMMING HONORED BY EAST TENNESSEE CHAPTER

Dr. Robert B. Cumming, founding editor of the journal *Risk Analysis* and first president of the Society for Risk Analysis, was presented a plaque for outstanding service to the East Tennessee SRA Chapter at the Honors and Awards Luncheon of the 1984 WATtec Conference. WATtec is an annual energy conference held in Knoxville, TN, each February by an association of technical societies. Dr. Cumming is on the staff of the Biology Division at Oak Ridge National Laboratory.

## EAST TENNESSEE SRA CHAPTER ELECTS 1984-85 OFFICERS

The East Tennessee SRA Chapter, formed nearly two years ago, has announced its second roster of officers. George F. Flanagan, Oak Ridge National Laboratory, is the new president, assuming the leadership from Ram Uppuluri, the chapter's first president. The vice president/president-elect is P. Groer, Center for Epidemiologic Research at Oak Ridge Associated Universities. Elizabeth Peelle, ORNL, and William R. Rhyne, H & R Technical Associates, are secretary and treasurer, respectively. Council members of the chapter are S. V. Kaye (until 1987), A. R. Buhl (1986), Shirley A. Fry (1985), and Ram Uppuluri (1985).

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## PUBLICATIONS

--*Risk Analysis Controversy: An Institutional Perspective*, Edited by Howard Kunreuther and Eryl V. Ley, 1982, Springer-Verlag New York Inc., \$24. Provides an institutional perspective on the role analysis plays in weighing economic benefits against environmental, health, and safety considerations, and thereby strengthens decision making process.

--*Risk Analysis and Decision Processes: The Siting of Liquefied Energy Gas Facilities in Four Countries*, Edited by Howard J. Kunreuther and Joanne Linnerooth, 1984, Springer-Verlag New York Inc., \$19. Examines the political, institutional and social processes underlying public policies on questions, such as siting large-scale technologies, involving health and safety risks to the public. Clarifies the analyst's role and demonstrates how this role could be improved with selected institutional and procedural reforms.

--Selected reprints available from Center for Technology, Environment, and Development (CENTED), Clark University, Worcester, Massachusetts, 01610, Phone (617)793-7283.

"Technology, Society, and Freedom in the Tower of Babel," by Theodore H. von Laue, *Technology in Society* 5, No. 2, 1983. (No. 42)

"Determining the Acceptability of Risk: Ethical and Policy Issues," by Roger E. and Jeanne X. Kasperson, in *Risk: A Symposium on the Assessment and Perception of Risk to Human Health in Canada, October 18 and 19, 1982*, Proceedings, The Royal Society of Canada, 1983. (No. 41)

"Acceptability of Human Risk," by Roger E. Kasperson, *Environmental Health Perspectives* 52, Oct., 1983. (No. 39)



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George F. Flanagan, *Editor*  
Lorraine S. Abbott, *Associate Editor*  
Katie Ingersoll, *Production Assistant*

*Society Officers:*

Paul Slovic, President, 1983-84  
Elizabeth Anderson, President-Elect, 1983-84  
Michael S. Baram, Secretary, 1983-85  
Howard Kunreuther, Treasurer, 1983-85  
Chris G. Whipple, Past President, 1982-83

*Members of SRA Council:*

Vincent T. Covello, 1984  
Michael C. Cullingford, 1984  
Andrew Sivak, 1984  
David G. Hoel, 1985  
Lester B. Lave, 1985  
Joyce C. McCann, 1985  
Francis Fagnani, 1986  
M. Granger Morgan, 1986  
Arthur C. Upton, 1986

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Bridge Road, Suite 300, McLean, VA, 22101

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

Bldg. 6025, Oak Ridge National Laboratory  
PO Box X, Oak Ridge, TN, 37830, USA

## SESSIONS AT 4th ANNUAL MEETING OF SOCIETY FOR RISK ANALYSIS

October 1-3, 1984, Knoxville, Tennessee

**Awards Speakers Session** — Monday Morning, Oct. 1

**Plenary Session** — Tuesday Morning, Oct. 2

**Social Sciences Sessions** — Oct. 1-3

- S-1: Predictability of Risk Perception and Acceptability - A
- S-2: Uncertainties in the Law and Regulation of Risk - A
- S-3: Risk and Compensation Uncertainties in Hazardous Waste Management
- S-4: Managerial, Administrative and Political Frameworks for Coping with Technical Uncertainties
- S-5: Predictability of Risk Perception and Acceptability - B
- S-6: Uncertainties in the Law and Regulation of Risk - B
- S-7: Decision Making Tools to Reduce Risk Uncertainty - A
- S-8: Social Aspects of Risk Uncertainties - A
- S-9: Communication of Risk Uncertainties
- S-10: Decision Making Tools to Reduce Risk Uncertainty - B
- S-11: Social Aspects of Risk Uncertainties - B

**Engineering Sessions** — Oct. 1-3

- E-1: What Have We Learned from Past PRAs?
- E-2: Safety Goal Considerations and Implementation
- E-3: New Methods and Applications in Risk Analysis
- E-4: Treatment of Uncertainties in Risk Analysis
- E-5: Uncertainty Considerations in Nonnuclear Applications
- E-6: Recent Case Studies and Applications in Nuclear PRA
- E-7: Utilizations of Risk Analysis in Decision Making
- E-8: Methods and Application in Nonnuclear Risk Analysis
- E-9: Assessment of Environmental Releases of Toxic Substances
- E-10: The Role of Data Analysis in PRAs
- E-11: Uncertainty Modeling and Engineering Analysis

**Special Session** — Oct. 3: Communication of Risk

**Health and Environment Sessions** — Oct. 1-3

- H-1: Environmental Contaminants
- H-2: Cancer Risk
- H-3: Hazardous Waste
- H-4: Water and Air Risk
- H-5: Uncertainty in Health and Environmental Risk
- H-6: Probability of Causation
- H-7: Health and Environmental Risk Assessment
- H-8: Epidemiology
- H-9: Uncertainty in Pathway Analysis
- H-10: Risk Assessment and Risk Management
- H-11: Model Uncertainties
- H-12: Dose/Response

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