

# RISK

## *newsletter*

Published by the SOCIETY for RISK ANALYSIS

Vol. 3, No. 1

May 1983

### **AUGUST 1-3: SRA 1983 ANNUAL CONFERENCE AND BUSINESS MEETING IN NEW YORK CITY**

The 1983 Annual Conference and Business Meeting of the Society for Risk Analysis will be held August 1-3 at the Grand Hyatt Hotel in New York City. Using the theme "Risk Analysis in the Private Sector," the conference will feature plenary sessions on Monday and Wednesday mornings, concurrent technical sessions on Monday and Wednesday afternoons and all day Tuesday, and a business meeting and reception on Monday evening. About 60 papers are scheduled for the technical sessions.

#### **SRA'S 1983-84 ELECTIONS IN PROGRESS**

Ballots for the election of the society's 1983-84 officers and three members of the council are being mailed to the membership from the office of the secretariat, and the results will be announced at the forthcoming annual meeting in New York August 1-3. The nominees for the officers are:

--President-elect: Elizabeth L. Anderson, Environmental Protection Agency; and Robert G. Tardiff, National Academy of Sciences, National Research Council.

-- Secretary: Michael Baram, Bracken and Baram Law Firm, Boston University; and Nathaniel F. Barr, US Department of Energy.

--Treasurer: Turkan Gardener, George Washington University; and Howard Kunreuther, Wharton School, University of Pennsylvania.

The elected officers and next year's president, Paul Slovic of Decision Research, will comprise the 1983-84 SRA Executive Committee, which oversees the daily operation of the society. The 1982-83 Executive Committee consists of President Chris Whipple, President-elect Slovic, Secretary Kenneth Solomon, Treasurer Ram Uppuluri, and a member appointed by the president, Vincent T. Covello.

(Continued on p. 3)

#### **Starr, Ames, Hutt Guest Speakers on Monday**

The conference will begin at 9 AM on Monday morning, August 1, with a plenary session at which the keynote speakers will be Chauncey Starr of the Electric Power Research Institute and Bruce Ames, Professor of Biochemistry, University of California, Berkeley.

Peter Barton Hutt, former chief counsel of the Food and Drug Administration and now an attorney with Covington and Burling, Washington, D.C., will speak at a Monday luncheon on the topic "Risk Analysis - A Historical Perspective."

The society will hold a business meeting and reception for all conference attendees on Monday evening. New officers and council members will be introduced during the business meeting.

#### **Monday Afternoon Sessions**

The technical sessions will begin Monday afternoon, with the following two sessions held concurrently from 2-5 PM:

---"Ethics and Values in Risk Analysis," chaired by Jeryl Mumpower, National Science Foundation.

---"Analysis of Energy Risks," chaired by Ram Uppuluri, Oak Ridge National Laboratory.

**1983 ANNUAL CONFERENCE (cont.)****Tuesday Morning Sessions**

On Tuesday morning three concurrent sessions will be held from 8:30 AM till noon:

---"Behavioral Aspects of Risk Analysis," chaired by Calvin von Buseck, General Motors Research Laboratory.

---"Approaches to Risk Management," chaired by Joseph Fiksel, A. D. Little, Inc.

---"Health Risk Assessment," co-chaired by Verne Ray, Pfizer Medical Research Laboratories, and David Hoel, National Institute for Environmental Health Sciences.

**Tuesday Afternoon Sessions**

On Tuesday afternoon, 1:30-3:30 PM, the following two concurrent sessions will be conducted:

---"Occupational Risk Assessment," chaired by Paul Deisler, Shell Oil Company.

---"Insurance and Risk Management," chaired by William Fairley, Analysis and Inference, Inc.

Also on Tuesday afternoon, 3:30-5:30 PM, sessions will be held on:

---"Labor and Risk Analysis," chaired by Roger Casperson, Clark University.

---"Statistical Issues for Risk Analysis," chaired by Joseph Fragola, Science Applications, Inc.

**Wednesday Morning Plenary Session**

A plenary session will be held on Wednesday morning on the topic "Institutional Initiatives for Risk Management." The session will be chaired by Tom Moss, Case Western Reserve University.

**Wednesday Afternoon Sessions**

The closing sessions on Wednesday afternoon, 1:30-5:00 PM, will be:

---"International Perspectives on Risk," chaired by Paolo Ricci, Electric Power Research Institute.

---"Chemical Risk Management," chaired by Rae Zimmerman, New York University.

Additional details about the meeting will be sent to the membership by Richard J. Burk, Jr., SRA Executive Secretary. Inquiries may be made to Mr. Burk at 301-654-3080.

**BOYKIN TO CHAIR 1984 ANNUAL MEETING**

Raymond Boykin of the Monsanto Corporation in St. Louis has been named to the Conferences and Workshops Committee with specific responsibility for site selection program planning of the society's 1984 annual meeting and workshop. Vincent Covello will be in charge of the proceedings for the meeting.

Paul Slovic, who chairs the Conferences and Workshop Committee, is seeking an additional committee member who would be interested in helping with fund raising for the 1984 meeting. Paul may be reached at Decision Research, 1201 Oak Street, Eugene, Oregon, 97401, Phone (503)485-2400.

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**1981 PROCEEDINGS NEAR PUBLICATION**

The proceedings from the First Annual Meeting of the Society for Risk Analysis (International Workshop on the Analysis of Actual vs. Perceived Risks, June 1-3, 1981, Washington, D.C.) will be available for sale at the society's annual meeting August 1-3 in New York City. Copies of the proceedings will be mailed within the next two months to those who attended the meeting.

**NOTICE****Address Changes  
Subscription Problems**

Society members who have had problems in receiving the SRA journal, *Risk Analysis*, or who wish to change their mailing addresses should contact:

Holli R. Hellman, Supervisor  
Journal Customer Service  
and Library Marketing  
Plenum Publishing Corporation  
233 Spring Street  
New York, NY 10013  
Phone (212)620-8000

It would also be helpful to SRA if copies of any notes sent to Ms. Hellman are mailed to:

Peggy Hinton  
Society for Risk Analysis  
4720 Montgomery Lane, Suite 506  
Bethesda, MD 20814  
Phone (301)654-3080

## CONTENTS OF RISK ANALYSIS, VOLUME 3, ISSUES 1 AND 2 ANNOUNCED

Editor Robert B. Cumming reports that the contents for the first two issues of Volume 3 (Year 1983) of the society's journal, *Risk Analysis*, have been established and the manuscripts have been forwarded to the publisher. The table of contents for both issues are shown below.

Issue 3 of Volume 2 has recently been received by the membership and, according to Hollis R. Hellman of Plenum Publishing Corporation, Issue 4 will be published within the next two months.

Vol. 3, No. 1		Vol. 3, No. 2	
Author(s)	Title	Author(s)	Title
<i>EDITORIAL</i>		<i>EDITORIAL</i>	
Robert B. Cumming	<i>Editorial: Risk Assessment and the Governmental Policy-Making Process</i>	Robert B. Cumming	<i>Editorial: Projecting Technological Trends and Their Associated Risks</i>
Robert G. Tardiff Warren R. Muir	<i>Guest Editorial: Priority Risk Assessment</i>	<i>ARTICLES</i>	
<i>BRIEF COMMUNICATION</i>		Jeffery E. Harris	Diesel Emissions and Lung Cancer
M. Granger Morgan <i>et al.</i>	On Judging the Frequency of Lethal Events: A Replication	Roy E. Albert Joellen Lewtas Stephen Nesnow Todd W. Thorslund Elizabeth L. Anderson	A Comparative Potency Approach for Cancer Risk Assessment: Application to Diesel Particulate Emissions
<i>ARTICLES: Health Risks From Diesel Emissions</i>		Richard G. Cuddihy Roger O. McClellan	(Comment #1 on the Harris and Albert <i>et al.</i> Papers) Evaluating Lung Cancer Risks From Exposures to Diesel Exhaust
Jan M. Doderlein	Understanding Risk Management	Harold B. Houser Edward A. Mortimer Yacov Y. Haimes Herbert S. Rosenkranz	(Comment #2 on the Harris and Albert <i>et al.</i> Papers) Diesel Emissions, Short-Term Bioassays and Lung Cancer
Alice S. Whittemore	Facts and Values in Risk Analysis for Environmental Toxicants	Richard C. Schwing Leonard Evans Richard M. Schreck	(Comment #3 on the Harris and Albert <i>et al.</i> Papers) Uncertainties in Diesel Engine Health Effects
Rakesh K. Sarin	A Social Decision Analysis of the Earthquake Safety Problem: The Case of Existing Los Angeles Buildings	Roy E. Albert, <i>et al.</i>	Response to the Comments on the Diesel Health Effects Papers.
Kenneth A. Solomon Michael Yesley	How Unique Are the Price-Anderson Limitations on Nuclear Accident Liability?	Jeffery E. Harris	Response to the Comments on the Diesel Health Effects Papers.
Henry Hurwitz, Jr.	The Indoor Radiological Problem in Perspective	Curtis C. Travis Nancy B. Munro	Potential Health Effects of Light-Duty Diesel Exhaust
<i>BOOK REVIEWS</i>			
Turkan K. Gardenier	Risk Analysis of Six Potentially Hazardous Industrial Objects in the Rijnmond Area, A Pilot Study		
William C. Clark	Risk and Culture (A Review and Commentary)		

### ELECTIONS (cont. from p. 1)

The pairs of nominees for the three positions on the SRA Council are as follows:

--George Apostolakis, University of California, Los Angeles; and M. Granger Morgan, Carnegie Mellon University.

--W. Gary Flamm, US Food and Drug Administration; and Arthur C. Upton, New York University School of Medicine.

--Francis Fagnani, CEPN, France; and Patrick Lagadec, Laboratoire D'Econometrie de l'Ecole Polytechnique, France.

Each elected council member will serve three-year terms. Council members retiring this year are Robert Hockenbury, Norton Nelson, and Timothy O'Riordan.

### TRAVIS APPOINTED JOURNAL EDITOR

Dr. Curtis Travis, Oak Ridge National Laboratory, has been appointed editor of the Society's journal, *Risk Analysis*, succeeding Dr. Robert B. Cumming, who has announced his resignation following the completion of Volume 3. Dr. Cumming, the society's first president (1981-82), has served as the editor of the journal since its inception. SRA is indebted to him for his dedication and hard work during the past three years, his efforts having resulted in our journal achieving a well-deserved reputation of high quality.

Papers submitted to the journal in the future should be addressed to:

Dr. Curtis Travis, Editor  
*Risk Analysis*, An International Journal  
Health and Safety Research Division  
Oak Ridge National Laboratory, PO Box X  
Oak Ridge, Tennessee, 37830

### HEALTH AND ENVIRONMENTAL RISK ANALYSIS SUBJECT OF NATIONAL CAPITAL AREA CHAPTER WORKSHOP

The National Capital Area Chapter of SRA sponsored a Workshop on the Methodology of Health and Environmental Risk Analysis on March 25 in Washington, D.C. Topics covered included (1) air, water, and food chain modeling, (2) cancer assessment, (3) human health threshold effects, (4) ecological effects assessment, (5) probabilistic risk, and (6) risk perception. Evaluation forms filled out by the approximately 30 workshop participants indicated overwhelming approval of the workshop in terms of concept and conduct.

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### EAST TENNESSEE CHAPTER ELECTS OFFICERS, HOLDS INAUGURAL MEETING

The newly formed East Tennessee Chapter of SRA announced its first roster of elected officers in January, conducted the first monthly meeting of its executive committee on February 4, and held its inaugural meeting for the entire membership on April 20.

The new president of the chapter is V. R. R. Uppuluri of Oak Ridge National Laboratory. Other officers elected are: G. F. Flanagan, vice-president/president-elect; M. J. Haire, secretary; and W. R. Rhyne, treasurer. A. Buhl, P. Groer, S. Kaye, and M. Linn are members of the chapter's council.

The inaugural meeting of the chapter, attended by 40 persons, was hosted by Technology for Energy Corporation in Knoxville, TN, with James E. Beavers, Union Carbide, Oak Ridge, giving the after-dinner address on "Earthquakes in the Eastern United States." Quarterly meetings of the membership are planned.

Other current plans of the chapter include sponsoring a Risk Analysis Methods Day in Oak Ridge on October 5 or 12 (see Calendar of Events) and becoming active in WATtec, the energy conference held in Knoxville, TN, each February by a group of technical societies. D. C. Parzyk is chairman of the committee for liaison with WATtec.

Other chairmen appointed thus far are T. D. Jones, for publicity, and H. Inhaber, for membership. Membership dues are \$5 per year and are payable to the treasurer, W. R. Rhyne, H&R Technical Associates, 977 Oak Ridge Turnpike, Oak Ridge, TN, 37830.

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### MOBIL CONTRIBUTES TO SRA

For the second consecutive year, Mobil Oil Corporation has made an unsolicited donation of \$500 to the Society for Risk Analysis. These contributions are used to support subscriptions to the society's journal for student members.

### BROOKINGS INSTITUTION AND NSF SPONSOR US-FRG CONFERENCE

A joint United States and Federal Republic of Germany Conference on Risk Management was hosted by the Brookings Institution and the National Science Foundation Risk Analysis Program at NSF April 25-29. The objective of the conference was to bring together researchers from the two countries to exchange information, clarify ideas, and enhance the progress of risk analysis research in both countries. The conference was attended by 20 US and 17 FRG risk analysis experts. The conference organizer was Dr. Lester Lave of Carnegie Mellon University.

During the four days of the conference the participants divided into four application groups and four methods groups. The application groups were: food and drug regulation; asbestos; transport of hazardous materials; and low probability/high consequence chemical installation accidents. The methods groups were: risk assessment; public perception; government control methods; and nonregulatory control methods.

A proceedings of the conference will be published. For more information, contact Dr. Vincent Covello, National Science Foundation, Phone 202-357-9828, or Dr. Lester Lave, Carnegie Mellon University, Phone 412-578-8837.

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### PUBLICATIONS

--*Applied Systems Engineering*, by A. Gheorghe, Department of Management Science, Bucharest Polytechnic Institute, Romania. 342 pages. Published September 1982. Deals with methodology of systems engineering as applied to reliability, maintenance and safety of large-scale and complex systems. Available from John Wiley & Sons Limited, Baffins Lane, Chichester, Sussex PO19 1UD, England. \$39.50.

--*The Temporary Worker in the Nuclear Power Industry: An Equity Analysis*, by Mary H. Melville, Clark University's Center for Technology, Environment, and Development (CENTED), Worcester, Massachusetts 01610. A monograph, 70 pages. Addresses societal issues raised by significant size of temporary work force in nuclear power industry and degree of worker radiation exposure. Available from CENTED. \$5.

--Selected reprints available from CENTED (\$1 each): "Risk and Reward: Hazard Pay for Workers," by J. Graham and D. Shakow; "Worker/Public Protection: The Double Standard," by P. Derr et al.; "Risks on the Job: The Worker's Right to Know," by M. Melville; "Are Workers Compensated for Risks on the Job (II)," by J. Graham and D. Shakow; "Publics, Workers, and Parathion: Equity in Hazard Management," by K. Johnson.

## CALENDAR OF EVENTS

--June 11. Short Course: INTRODUCTION TO PROBABILISTIC RISK ASSESSMENT, American Nuclear Society Annual Meeting, Detroit Michigan. \$200 ANS members, \$250, nonmembers. Contact: Meetings Dept., ANS, 555 N. Kensington Ave., La Grange Park, Ill. 60525, Phone (312)352-6611.

--June 12-17. 1983 SUMMER SCHOOL ON INTERNAL DOSIMETRY, University of Maryland at Baltimore County (in Catonsville), sponsored by Health Physics Society. Contact: Dr. Allen Brodsky, Phone (301)443-5970.

--June 19-23. 28th ANNUAL MEETING OF THE HEALTH PHYSICS SOCIETY, Baltimore Hilton Hotel and the Convention Center, Baltimore, Maryland. Contact: HPS Secretariat, 4720 Montgomery Lane, Suite 506, Bethesda, MD 20814, Phone (301)654-3080.

--June 20-22. A PROBABILISTIC RISK ASSESSMENT SEMINAR, Copenhagen, Denmark. Contact: Erik Pedersen, Energy Inc., PO Box 736, Idaho Falls, ID, 83402, USA.

--June 27-29. PROBABILISTIC RISK ASSESSMENT: APPLICATIONS AND USES FOR DECISION MAKING IN THE NUCLEAR INDUSTRY, Massachusetts Institute of Technology. Contact: Summer Session Office, MIT, Room E19-356, Cambridge, MA, 02139.

--July 1. OPERATIONAL RESEARCH SOCIETY NATIONAL EVENT ON RISK ANALYSIS, University of Reading, Reading, England. Contact: Timothy O'Riordan, School of Environmental Sciences, University of East Anglia, Norwich, NR4 7TJ, England, Phone Norwich (0603) 56161, Telegrams UEANOR NORWICH.

--July 27-29. SUMMER INSTITUTE IN RISK MANAGEMENT IN ENVIRONMENTAL HEALTH AND PROTECTION, Graduate School of Public Administration, New York University. Oriented toward public and private sector environmental health and environmental protection managers and specialists who deal with hazardous materials. Objective is to develop managerial and decision-making skills for identifying and assessing risk problems, integrating technical information and quantitative risk assessments into hazardous materials decisions, and considering attitudes and perceptions and legal and manpower needs in these decisions. Contact: Summer Institute, NYU Graduate School of Public Administration, 4 Washington Square North, New York, NY 10003; or call Mr. Charles Nicolson at (212)598-3133 or Professor Rae Zimmerman (Institute Director) at (212)598-3725.

--August 1-3. ANNUAL CONFERENCE AND BUSINESS MEETING OF THE SOCIETY FOR RISK ANALYSIS. Theme: "Risk Analysis in the Private Sector." Grand Hyatt Hotel, New York City. (See story in this newsletter.) Contact: Chris Whipple, Electric Power Research Institute, 3412

Hillview Avenue, PO Box 10412, Palo Alto, CA 94303, Phone (415)855-2443; or Vincent Covello, Risk Program, National Science Foundation, 1800 G Street, NW, Washington, DC, 20550, Phone (202)357-9828.

--August 21-31. NATO ADVANCED STUDY INSTITUTE. Theme: "Technology Assessment, Risk Analysis, and Environmental Impact Assessment: Contributions from the Psychological and Decision Sciences." Les Arcs Conference Center and Resort Complex, Province of Savoy, France. Held by North Atlantic Treaty Organization; co-sponsored by the Society for Risk Analysis. Institute directors: V. T. Covello, National Science Foundation, and Ram Uppuluri, Oak Ridge National Laboratory. Co-directors: J. Mumpower, National Science Foundation, and P. Stallen, Netherlands Institute for Applied Scientific Research. SRA contact: R. Uppuluri, Computer Sciences Division, Bldg. 9704-1, Oak Ridge National Laboratory, PO Box Y, Oak Ridge, TN, 37830, phone (615)574-3145.

--September 26-30. OPERATIONAL RESEARCH SOCIETY ANNUAL CONFERENCE, University of Warwick, Coventry, England. Contact: Timothy O'Riordan (see address above).

--October 3-4. ETHICS, ENGINEERING, AND PUBLIC POLICY, Oak Ridge Associated Universities (ORAU) Auditorium, Oak Ridge, Tennessee. Fall Symposium of East Tennessee Chapter of American Institute of Chemical Engineers. Contact: Dr. Victor C. A. Vaughn, Bldg. 4500N,, Room A030, Oak Ridge National Laboratory, P. O. Box X, Oak Ridge, TN, 37830, Phone (615)574-6881.

--October 5 or 12. RISK ANALYSIS METHODS DAY, Oak Ridge Associated Universities (ORAU) Auditorium, Oak Ridge, Tennessee. Sponsored by East Tennessee Chapter of Society for Risk Analysis. Contact: Dr. V. R. R. Uppuluri, Bldg. 9704-1, Room 31, Oak Ridge National Laboratory, P. O. Box Y, Oak Ridge, TN, 37830, Phone (615)574-3145.

--October 19-21. 9th ANNUAL STATISTICS SYMPOSIUM ON NATIONAL ENERGY ISSUES (formerly titled Department of Energy Statistical Symposium), Holiday Inn International, Rockville, Maryland. Sponsored by Nuclear Regulatory Commission and DOE National Laboratories. Host organization: Los Alamos National Laboratory. Program will include contributed and invited papers, tutorial sessions on uncertainty analysis and on safety goals, and a panel discussion on statisticians' roles in energy policy formulation. One-page abstracts of contributed papers on applications of statistics to energy problems due by June 1. Contact: M. C. Bryson, MS F600, Los Alamos National Laboratory, Los Alamos, NM 87545, phone (505)667-3308.

(Continued on p. 6)



*RISK newsletter* is published quarterly by The Society for Risk Analysis.

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

*Advisory Committee:*

Chris G. Whipple, *President, 1982-83*  
Paul Slovic, *President-Elect, 1982-83*  
Kenneth A. Solomon, *Secretary, 1981-83*  
Ram Uppuluri, *Treasurer, 1981-83*  
Robert B. Cumming, *Past President, 1981-82*  
Vincent T. Covello, *Chairman, Publications Committee, 1981-83*

*Society Secretariat:* Richard J. Burk, Jr., Executive Secretary, Society for Risk Analysis, 4720 Montgomery Lane, Suite 506, Bethesda, MD, 20814, (301) 654-3080

NOTE: Submissions to this newsletter should be sent to the editors (see box above) at the following address:

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

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**CALENDAR OF EVENTS (cont.)**

--May 7-12, 1984. RADIATION - RISK - PROTECTION, 6th International Congress of the International Radiation Protection Association, Berlin (West). Organized by the Fachverband fur Strahlenschutz e.V. Contact: R. Neider, Secretary General of 6th IRPA Congress, Bundesanstalt fur Materialprufung (BAM), Unter den Eichen 87, D-1000, Berlin 45, Phone 030/8104 6300, Telex 183 261.

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**1983-84 NSF AWARDS ANNOUNCED**

Vincent T. Covello, Program Manager of the National Science Foundation's Technology Assessment and Risk Analysis Program, has announced that the following four NSF awards have been made for FY1983-84:

---"Four Methodological Assumptions in Risk-Cost-Benefit Analysis." Principal Investigator: Kristen Shrader-Frechet, University of California, Santa Barbara.

---"Consequences of Carbon Dioxide/Climate Change for U.S. Energy Policy." Principal Investigator: David Rose, Massachusetts Institute of Technology.

---"A Theoretical and Empirical Investigation of the Effects of Risk on Decision Making." Principal Investigator: James Dyer, University of Texas, Austin.

---"Workshop on Dealing with Uncertainty in Risk Analysis." Principal Investigator: Joseph Fiksel, Arthur D. Little Company.

For more information on these and other awards, write to Covello at NSF, 1800 G. St., NW, Washington, DC, 20550.

**NOTICE**

After this issue, copies of *RISK newsletter* will be mailed only to members of the Society for Risk Analysis. This decision is necessary in order to reduce printing and postage costs associated with the newsletter.

Bulk Rate  
U. S. Postage  
PAID  
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Oak Ridge, TN