

RISK

newsletter

Published by the SOCIETY for RISK ANALYSIS

Number 2

December 1981

LP/HC WORKSHOP TO BE HELD JUNE 15-17 IN ARLINGTON, VA SRA ANNUAL MEETING ON JUNE 17-18

A three-day Workshop on Low-Probability/High-Consequence Risk Analysis will be held at the Hyatt Regency Hotel in Arlington, Virginia, June 15-17, under the cosponsorship of the Society for Risk Analysis, the Nuclear Regulatory Commission, and other sponsors to be announced. Immediately following the Workshop, beginning on the evening of June 17 and continuing through June 18, SRA will conduct its 1982 Annual Meeting at the same location.

A LETTER TO THE MEMBERSHIP

Dear Members:

A new society always has startup problems with its publications, and it is obvious that ours is no exception. We are confident, however, that our major problems have now been resolved, and we can look forward to a good second year.

A few weeks ago the newly formed SRA Publications Committee, with the Council's concurrence, negotiated with Marda Associates of Oak Ridge, TN, to assist Dr. Robert B. Cumming, editor of the Society's journal, *Risk Analysis*, with its publication. A survey of other professional societies had revealed that the management of society journals entails time-consuming activities with which editors should not be burdened. By providing assistance to our editor, we expect that the journal can now follow its quarterly schedule without interruption.

The Committee also appointed two new editors who have the responsibility for publishing *Risk Newsletter*. Henceforth the newsletter, too, should meet its intended quarterly schedule.

With the division of labor and responsibility thus delineated, the Publications Committee feels that it has established the lines of communication so essential to a vital society. We look forward to SRA's future with optimism.

Vincent T. Covello, Chairman
SRA Publications Committee

LP/HC Workshop

The LP/HC Workshop will examine the development of the methodology for analyzing LP/HC events and the results of research aimed at understanding such events. The emphasis will be on nuclear power plant risks; however, risks such as those associated with transportation accidents, toxic spills, chemical plant wastes, dam failures, and nuclear waste disposal will also be addressed. In addition, the public perception of risk in different contexts will be discussed. Specific topics to be highlighted are:

- LP/HC Analysis Models
- Statistics in LP/HC Risk Analysis
- Legal Issues Associated with LP/HC Risk Analysis
- Utilization of LP/HC in Regulatory Decision Making
- Quantification of Human Error in LP/HC Risk Analysis
- Risk Analysis and the Public
- Uncertainties Associated with LP/HC Risk Analysis Results
- Case Studies of Recent Risk Analyses
- LP/HC Risk Analysis as a Profession

Vincent Covello, National Science Foundation, and Ray Waller, Los Alamos Scientific Laboratory, are co-chairmen for the Workshop. Members of the organizing committee are: Lee Abramson, James Johnson, Les Lancaster, and P. K. Niyogi, NRC; Maurice Bryson and Harry Martz, Los Alamos National Laboratory; Gio B. Gori, Franklin Institute; and Robert Cumming, George Flanagan, and V. R. R. Uppuluri, Oak Ridge National Laboratory. Additional (Cont. on p. 2)

LP/HC WORKSHOP (cont. from p. 1)

Information on the program may be obtained from Uppuluri (Building 9704-1, ORNL, P. O. Box Y) or Flanagan, (Building 6025, ORNL, P. O. Box X), Oak Ridge, TN, 37830.

SRA Annual Meeting: Minisymposium on New Directions for Risk Analysis

The Society's 1982 Annual Meeting will begin with poster presentations on the evening of June 17 (see Call for Papers, this newsletter). On June 18, Society business will be conducted, including the installation of officers, and invited papers will be presented at a minisymposium on "New Directions for Risk Analysis." The topics to be covered at the minisymposium are:

- Semantics. Exploring problems with different terminologies in diverse disciplines.
- Classification. Examining implications of different measures of risk.
- Management. Managing risk activities in government, public, and private organizations.

Co-chairmen for the annual meeting are Gio Gori, Franklin Institute, Silver Spring, MD, and Joseph R. Penland, Science Applications, Inc., Oak Ridge, TN. Questions about the program should be directed to Penland, P. O. Box 531, Oak Ridge, TN, 37830.

CALL FOR PAPERS

for

Poster Presentations
Thursday Evening, June 17

at

SRA 1982 Annual Meeting
Hyatt Regency, Arlington, Virginia

We would be pleased to have you submit abstracts of papers to be considered for poster presentation at the 1982 Annual Meeting of the Society for Risk Analysis. Each abstract should include the following:

- Objectives of work
- Methodology used
- Results
- Significance of results

Abstracts should be typed double spaced and limited to one page. Author's name, affiliation, address, and telephone number should be included. Submit abstracts by February 15, 1982, to:

Dr. J. R. Penland, Program Co-chairman
Society for Risk Analysis
P. O. Box 531
Oak Ridge, TN 37830

1981-82 OFFICERS INSTALLED AT SRA'S FIRST ANNUAL MEETING

Solomon Chosen Secretary, Uppuluri Treasurer

Other officers installed were Kenneth A. Solomon, secretary, and V. R. R. Uppuluri, treasurer, both of whom will serve two-year terms. Solomon is a senior engineer in the Engineering Applied Science Department of The Rand Corporation, Santa Monica, CA, and Uppuluri, a mathematical statistician, is a senior scientist in the Mathematical and Statistical Research Department of the Computer Science Division, Union Carbide Nuclear Division, Oak Ridge, TN.

Cumming Elected President

Robert B. Cumming, who served as interim president of SRA during its organizing stage, was installed as the first president of the Society at its First Annual Meeting held in Washington, D.C., June 1, 1981. Cumming, a genetic toxicologist and research staff member of the Biology Division, Oak Ridge National Laboratory, Oak Ridge, TN, will hold office until June 1, 1982. Cumming is also editor of the Society's journal, *Risk Analysis*.

Whipple Is President-Elect

Also installed at SRA's First Annual Meeting was the president-elect, Chris G. Whipple, Technical Manager of the Energy Study Center, Electric Power Research Institute, Palo Alto, CA. Whipple, whose educational background is in engineering science, is currently engaged in the study of energy risks. He will assume the presidency of the Society on June 1, 1982.

Nine Elected to SRA Council

In addition to the four officers, nine members were elected to one-, two-, or three-year terms on SRA's Council, which meets approximately quarterly. Those elected and their year-end tenures are: Elizabeth L. Anderson (1982), US Environmental Protection Agency, Washington, D.C.; Joseph V. Rodricks (1982), Clement Associates, Washington, DC; Paul Slovic (1982), Decision Research, Eugene, OR; Robert W. Hockenbury (1983), (Cont. on p. 5)

Issues 2, 3, and 4 of SRA Journal Now with Publisher

After a lapse of several months following the first issue of *Risk Analysis, An International Journal*, Plenum Publishing Corporation now has all the material for the next three issues, with Issue 2 scheduled for publication in mid-February. Issues 3 and 4 will follow at approximately monthly intervals.

Author(s)	Title
Vol. 1, No. 2	
EDITORIAL	
Robert B. Cumming	<i>Editorial: Reflections on Decisions, Options and Risks</i>
LETTERS TO THE EDITOR	
Nathan Mantel	The Crouch-Wilson Proposal for Regulating Carcinogens
Charles C. Brown	Comments on 'The Regulation of Carcinogens' by Crouch and Wilson
Edmund A. C. Crouch Richard Wilson	Reply to Comments on 'The Regulation of Carcinogens'
ARTICLES	
Chauncey Starr	Risk Criteria for Nuclear Power Plants: A Pragmatic Proposal
J. Michael Griesmeyer David Okrent	Risk Management and Decision Rules for Light Water Reactors
Thierry B. Meslin	Assessment and Management of Risk in the Transport of Dangerous Materials: The Case of Chlorine Transport in France
Gerald A. Cole Stephen B. Withey	Perspectives on Risk Perceptions
Vol. 1, No. 3	
EDITORIALS	
Robert B. Cumming	<i>Editorial: The Urge to Shout</i>
Leonard A. Sagan	<i>Guest Editorial: On Holes and Doughnuts</i>
LETTERS TO THE EDITOR	
John P. Holdren	Science and Personalities Revisited
Andrew P. Hull	The Limits of the Peer Review Process
NOTE	
Miller B. Spangler	A Note on the Role of Syndrome Management and Future of Nuclear Energy
ARTICLES	
Stanley Kaplan	On the Method of Discrete Probability Distributions in Risk and Reliability Calculations: Application to Seismic Risk Assessment
William B. Fairley	Assessment of Catastrophic Risks
Richard W. Leggett Douglas J. Crawford	A Method for Projecting Age-Specific Mortality Rates for Certain Causes of Death
Stephen L. Derby Ralph L. Keeney	Risk Analysis: Understanding "How Safe Is Safe Enough?"

The contents of the forthcoming issues are as shown here. After Issue 4 is completed, the journal will be published on its intended quarterly schedule.

The journal is sent to regular, student, and retired members of the the Society. Institutional subscriptions to a four-issue volume are available at \$60 (\$68 outside the United States), and personal subscriptions are available at \$30 (\$35 outside the US). Subscription orders should be mailed to Plenum, 233 Spring Street, New York, NY, 10013.

Submissions for publication in the journal should be mailed to: Dr. Robert B. Cumming, Editor, Biology Division, Oak Ridge National Laboratory, PO Box Y, Oak Ridge, TN, 37830.

Author(s)	Title
Vol. 1, No. 4	
EDITORIALS	
Robert B. Cumming	<i>Editorial: What Is Science Good For?</i>
LETTERS TO THE EDITOR	
Lee R. Abramson	Some Misconceptions about the Foundations of Risk Analysis
Stanley Kaplan B. John Garrick	Some Misconceptions about Misconceptions: A Response to Abramson
BRIEF COMMUNICATION	
Joshua Menkes	Risk or Angst?
ARTICLES	
William H. Ruckle	The Saint Petersburg Game: An Exposition of the Classical Treatment
David C. Cox Paul Baybutt	Methods for Uncertainty Analysis: A Comparative Survey
Richard J. Helmeste Colin R. Phillips	A Risk Evaluation of the Chlorine Industry in North America
Bernard L. Cohen	Long Term Consequences of the Linear No-Threshold Dose-Response Relationship for Chemical Carcinogens
Detlof von Winterfeldt Richard S. John Katrin Borcherdig	Cognitive Components of Risk Ratings
Howard Kunreuther John W. Lathrop	Siting Hazardous Facilities: Lessons from LNG

NEWSLETTER EDITORS, SCHEDULE ANNOUNCED

Publications Committee Chairman Vincent T. Covello has announced the appointments of George F. Flanagan and Lorraine S. Abbott as editor and associate editor, respectively, of *Risk Newsletter*. The newsletter will be published quarterly, with the next issue scheduled for March, 1982. Newsletter articles submitted for consideration by the editors should be mailed to Flanagan or Abbott at: Engineering Physics Division, Oak Ridge National Laboratory, Bldg. 6025, PO Box X, Oak Ridge, TN, 37830.

CALENDAR OF EVENTS

--RELIABILITY AND RISK ANALYSIS APPLIED TO NUCLEAR POWER PLANTS - January 25-29, 1982, University of Maryland University College Conferences and Institutes Program, University of Maryland University College Center of Adult Education, College Park, Maryland. \$850. For engineers involved in the design, construction, operation, or regulation of light-water reactors; emphasizes application of analysis and risk assessment methodologies to nuclear power plants. Write Registration Clerk, University Boulevard at Adelphi Road, College Park, MD 20742.

--WATtec NATIONAL ENERGY CONFERENCE AND EXHIBITION - February 24-26, 1982. Hyatt Regency Hotel, Knoxville, Tennessee. Sponsored by 28 technical and professional societies during National Engineers's Week. Includes 27 half-day sessions on energy-related topics. Includes a Public Awareness Symposium on February 25. Commercial exhibits in Hyatt lobby. Write WATtec '82, PO Box 629, Oak Ridge, TN 37830.

--ADVANCED RELIABILITY ENGINEERING AND RISK ASSESSMENT - March 15-19, 1982, Knoxville, Tennessee. A course sponsored by JBF Associates, Inc. \$750. Will present advanced techniques for solving reliability and safety problems encountered in the analysis of complex industrial systems. Write JBF Associates, Inc., 1630 Downtown East Blvd., Knoxville, TN, 37919, phone 615/691-2231.

--EXECUTIVE CONFERENCE ON METHODS FOR PROBABILISTIC RISK ASSESSMENT -- April 4-7, 1982, Arlington, Virginia. Sponsored by American Nuclear Society. Write or call General Chairman James F. Mallay, Babcock & Wilcox, PO Box 1260, Lynchburg, VA 24505, phone 804/385-3600.

--INTERNATIONAL ENERGY EXPOSITION - May 1 - October 31, 1982, Knoxville, Tennessee.

--INTERNATIONAL SYMPOSIUM ON RODENT LIVER NODULES: SIGNIFICANCE TO HUMAN CANCER RISK? - Society of Toxicologic Pathologists, Sheraton International Conference Center, Reston, Virginia, May 10-12, 1982. Meeting will explore evidence for and against current concept that rodent liver nodules found in toxicity studies are *prima facie* evidence of human carcinogenic potential. For information, write B. E. McKenzie, Ortho Pharmaceutical Corp., Raritan, New Jersey 08869, USA.

--WORKSHOP ON LOW PROBABILITY/HIGH CONSEQUENCE RISK ANALYSIS - June 15-17, Hyatt Regency, Arlington, Virginia. Sponsored by Society for Risk Analysis and U.S. Nuclear Regulatory Commission.

--NEW DIRECTIONS FOR RISK ANALYSIS; SECOND ANNUAL MEETING OF THE SOCIETY FOR RISK ANALYSIS - June 17-18, Hyatt Regency, Arlington, Virginia.

MEMBERSHIP APPLICATION ENCLOSED

The Society for Risk Analysis now has approximately 600 members, and most of you receiving this newsletter are among them. However, news of the formation of the Society has not yet reached all professional communities dealing with risk analysis. You are encouraged to publicize SRA and to hand out the enclosed membership form to prospective members.

PROCEEDINGS OF 1981 ANNUAL MEETING TO BE PUBLISHED

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 published by Plenum Press in May or June, 1982. All participants in the conference will receive free copies and other members of the Society may purchase copies at half price. The cost of the proceedings will be announced in the March newsletter.

NUCLEAR PRA PROCEDURES GUIDE REVIEWED

In cooperation with the Steering Committee responsible for the development of a Probabilistic Risk Assessment Procedures Guide for Nuclear Power Plants, the Institute of Electrical and Electronics Engineers, Inc. (IEEE) organized a Review Conference which was held in Washington, DC, on October 26-28 with over 400 persons participating. The program for the conference was developed under the direction of Joseph R. Penland, an SRA member. General chairman for the conference was Richard J. Gowen, PRA Steering Committee co-chairman and IEEE Vice President for Professional Activities.

At the conference four general sessions were held for discussion of the draft guide (NUREG/CR-2300). In addition, seven review committees were appointed to provide in-depth reviews of specific chapters. Considering comments both from their members and from other conference participants, the committees identified the issues and developed recommendations for resolving the issues. The recommendations were presented to the PRA Steering Committee, together with copies of all comments received in writing.

Have a Logo in Mind?

SRA has not yet selected a logo. If you would like to submit a design for consideration by the Council, mail it to the newsletter (see address on page 3) and we will forward it to Council.

1981-82 OFFICERS INSTALLED (Cont. from p. 2)

Rensselaer Polytechnic Institute, NY; Norton Nelson (1983), New York University, New York, NY; Timothy O'Riordan (1983), University of East Anglia, Norwich, United Kingdom; Vincent T. Covello (1984), National Science Foundation, Washington, DC; Michael C. Cullingford (1984), US Nuclear Regulatory Commission, Washington, DC; and Andrew Sivak (1984), Arthur D. Little, Inc., Cambridge, MA.

Advisory Board Named

Advice and counsel are provided to the Council and the officers by an Advisory Board consisting of approximately 20 members of the Society. Members of the Board are appointed by the president with the concurrence of the Council. The Board has no chairman and no formal meetings of its own, but members of the Board are invited to attend the Council meetings.

SRA Has Five Constitutional Committees

SRA also has five constitutional committees, which are listed as follows, along with the 1981-82 chairmen:

- Publications Committee, Vincent T. Covello, chairman.
- Conferences and Workshops Committee, chaired by president-elect, Chris G. Whipple
- Nominating Committee, Elizabeth L. Anderson, chairman.
- Membership Committee, Gordon W. Newell and Timothy O'Riordan, co-chairmen.
- Finance Committee, chaired by treasurer, V. R. R. Uppuluri.

Other Committees Designated

Finally, SRA has several designated committees as follows:

- Constitutional Review Committee, Michael S. Baram, chairman.
- Education Committee, Kenneth A. Solomon, chairman.
- Peer Review Committee, Robert W. Hockenbury, chairman.

NOMINATING COMMITTEE SOLICITING SUGGESTIONS FOR 1982-83 OFFICERS

The SRA Nominating Committee invites the SRA membership to suggest names for consideration by the committee as nominees for 1982-83 officers. The positions to be filled are the president-elect and three three-year Council positions. Since the secretary and treasurer are serving two-year terms, new officers to fill these positions will not be elected this year. The three Council members to be elected will replace those now serving one-year terms.

Suggestions for the committee must be received by January 31. Mail to:

Dr. Elizabeth L. Anderson
Director, Office of Health
and Environmental Assessment
U. S. Environmental Protection Agency
401 M Street, SW
RD-689
Washington, D.C. 20460

RECENT NSF GRANTS ANNOUNCED

In FY 1981 the National Science Foundation Risk Analysis Program made five new awards as follows:

- "The Assessment of Comparative Methodologies for Comparing the Risks of Selected Technologies." Principal Investigator: Edward Lawless, Midwest Research Institute.
- "Perceptions of Societal Decision Procedures for Managing Technological Hazards." Principal Investigator: Kenneth Craik, University of California, Berkeley.
- "Toward Developing Methods for Understanding Public Responses to Risky Technologies." Principal Investigators: Ward Edwards and Detlof Von Winterfeldt, University of Southern California.
- "Risk Evaluation and Policy." Principal Investigator: Ralph Keeney, Woodward-Clyde Consultants.
- "Public Perceptions of Technological Risks: A Methodological Study," Principal Investigators: Jan Stolwijk, Donald DeLuca, and Leroy Gould, Yale University.

For information about these and other grants made by the NSF Risk Analysis Program contact Dr. Vincent T. Covello, National Science Foundation, 1800 G St, NW, Washington D.C. 20550, 202-357-9828.

NATIONAL, INTERNATIONAL ENERGY CONFERENCES SCHEDULED

The ninth annual WATtec National Energy Conference and Exhibition will be held February 24-26, 1982, in Knoxville, TN, and will be followed by a six-months long International Energy Exposition (1982 World's Fair) in the same city.

WATtec, sponsored by 28 technical and professional societies and held at the Hyatt Regency Hotel during National Engineers Week, will include 25 half-day sessions on energy-related topics and will feature exhibits by 40 U.S. and foreign firms. A Public Awareness Symposium will be included as part of the WATtec program on February 25.

Unique to WATtec '82 will be the opportunity to explore the world's energy issues and policies in conjunction with the 1982 World's Fair, which will be held from May 1 to October 31, 1982. The Fair's theme is "Energy Turns the World."

The organizers of both WATtec and the 1982 World's Fair chose the East Tennessee location because of the emphasis on energy research in the area. The headquarters for the Tennessee Valley Authority, the nation's largest electric utility, is located in Knoxville, and three Department of Energy installations engaged in energy research, development, and production are located in nearby Oak Ridge. Oak Ridge is also the site for the first demonstration breeder power reactor in the United States, the Clinch River Breeder Reactor. The WATtec program will include a tour of the area's energy installations and a tour of the 1982 World's Fair site.

Additional information on WATtec may be obtained by writing to: WATtec '82, PO Box 629, Oak Ridge, TN, 37830. For information on the 1982 World's Fair, write to 1982 World's Fair, PO Box 1982, Knoxville, TN, 37901.

EDITORS SOLICIT COMMENTS, LETTERS

In our future plans for *Risk Newsletter*, we envisage a column that includes Letters to the Editor(s). We solicit your letters on the newsletter, journal, or other matters of the Society, reserving the right, of course, to exercise editorial judgement as to which letters will be published. All letters not selected for publication will be forwarded to the Council. Thus, the newsletter will function as a clearing house for communications to the Council. The address of the editors is given on page 3.

RISK Newsletter
Society for Risk Analysis
P.O. Box 531
Oak Ridge, TN, USA 37830

SOCIETY for RISK ANALYSIS

APPLICATION FOR MEMBERSHIP

(Fill in both sides of form; to ensure legibility, please type or print.)

Name _____
Last First Middle Initial

Address _____
_____ *Street*
_____ *City*
_____ *State*
_____ *Country and/or Mailing Code (Zip)*

Telephone (Include Area Code) _____
Business Number Residential Number

Professional Experience

Current Employer _____
Position _____
Concurrent Affiliations _____
Previous Positions _____

Education

<u>Institution</u>	<u>Major Field</u>	<u>Degree</u>	<u>Year</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Awards and Honors

Professional Society Memberships (Include Any Offices Held)

Areas of Interest in Risk Analysis

SRA Annual Memberships (Check Category of Membership Desired)

- | | | | |
|--|---|---|---|
| <input type="checkbox"/> Regular
\$30 | <input type="checkbox"/> Student*
\$10 | <input type="checkbox"/> Retired†
\$20 | <input type="checkbox"/> Regular Membership
Without Journal‡
\$10 |
|--|---|---|---|

A regular membership includes a yearly subscription to *Risk Analysis*, an international journal published for The Society by Plenum Publishing Corporation of New York and London.

*Limited to full-time students (graduate or undergraduate) at a college or university pursuing a program related to Risk Analysis; includes subscription to the Journal.

†Limited to persons who are retired; includes subscription to the Journal.

‡Limited to individuals in a family that includes at least one regular member who receives the journal and lives at the same address.

Signature of Applicant _____

Date _____

Checks or money orders (in United States currency or the equivalent) should be made payable to The Society for Risk Analysis and mailed with completed application to:

Dr. V. R. R. Uppuluri, Treasurer
The Society for Risk Analysis
P. O. Box 531
Oak Ridge, TN, 37830, USA