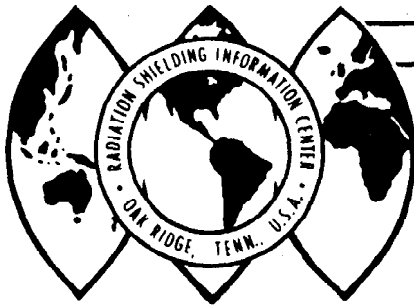


# RSIC Newsletter



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No. 261

August 1986

*There are two ways to interest a man or arouse his curiosity. One is to tell him something that he didn't know. The other is to remind him of something he has forgotten.—A. E. N. Gray*

## Cramer Joins EPIC Staff

The latest addition to the Engineering Physics Information Centers (EPIC), S. N. (Noel) Cramer, brings a great deal of experience in radiation transport calculations. A University of Tennessee nuclear engineering graduate, Cramer received his Ph.D. degree in 1969. He has many years of experience in developing and applying Monte Carlo, particularly MORSE-CG, to a variety of problems for the Engineering Physics and Mathematics Division's Shielding Group. Cramer worked with the French CEA/CEN/LEPF Shielding Laboratory, Saclay, France, on the TRIPOLI Monte Carlo code

system during a 16-month period starting in September 1981. He participated in a 1984 International Course on Monte Carlo Methods in Nuclear Reactor Analysis, at the Joint Research Center of the European Communities, Ispra, Italy. He was the principal organizer and one of three primary lecturers for the RSIC Workshop on MORSE-CGA in June 1985. We are pleased to have him on our staff and anticipate a long and productive association.

R. W. Roussin

## Hold Placed on New GALE

The contributors of the CDC version of CCC-335C/GALE as announced in the June 1986 *RSIC Newsletter* have asked that it not be distributed until some discrepancies have been resolved. Please watch future newsletters for announcement of its availability.

IF YOU CHANGE YOUR ADDRESS, please notify us (including Building and Room No. where needed). Third Class Mail is returned to us at our expense if the addressee has moved. If your mail is returned, your name will be deleted from our distributions until we hear from you.

## CHANGES IN THE DATA LIBRARY COLLECTION

During the month a new data library was added to the collection.

### DLC-118/MGCLIB

This package of 137- and 26-group neutron multigroup cross section libraries with a Bondarenko-type shielding table was contributed by JAERI, Tokai-mura, Naka-gun, Ibaraki-ken, Japan. The data in MGCLIB were generated from evaluated cross sections from ENDF/B and JENDL, first using RESEND-D to generate point cross sections and then collapsing to 137 groups. Two different models were used to produce data needed to calculate effective cross sections. The resulting data include infinite dilution cross sections, resonance

self-shielding factors, resonance material shielding factors, and moderator mass-effect tables. The scattering matrix part was generated using SUPERTOG and FLANGE or PIXSE. A 26-group library, collapsed from 137-group data, is also provided with the package. The 26-group library contains data for 90 materials; however, the 137-group library provided contains data for only 67 materials. The data are divided into two parts: the JCTS part (one-dimensional) and the SMF part (two-dimensional), the latter representing the scattering matrix. Programs are provided to convert the two parts to binary form. In addition, the MAIL program provided prepares an ANISN library. ANISN libraries can be converted for use in KENO using the REMAIL program. Reference: JAERI-M/9396.

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### ANS RP&S News

The RSIC Director is serving as the chairman of the ANS Radiation Protection and Shielding (RP&S) Division for the 1986-1987 term. Participation by all members is encouraged. The officers and executive committee members are as follows: Chair—**R. W. Roussin**, Oak Ridge National Laboratory (ORNL); Vice Chair/Chair-Elect—**Nick Tsoulfanidis**, CEA Centre d'Études Nucléaires de Cadarache, France (see Personal Item); Secretary—**Daniel Ingersoll**, ORNL; Treasurer—**William J. Johnson**, Sargent and Lundy. The Executive Committee is as follows: Through 1987—**Herbert Goldstein**, Columbia University; **Keran O'Brien**, Environmental Measurements Laboratory, U.S. Dept. of Energy; and **David Trubey**, ORNL; Through 1988—**Thomas E. Albert**, Science Applications, Inc.; **F. Jeff Boorboor**, United Engineers & Const.; and **Richard A. Weller**, Nuclear Regulatory Commission; Through 1989—**Margaret B. Emmett**, ORNL; **Arnold Fero**, Westinghouse; and **J. K. Shultis**, Kansas State University.

Positions on the standing committees remain open. Contact R. W. Roussin if you are interested in serving.

The November ANS Meeting in Washington will be highlighted by a special award to be presented to **Theodore Rockwell, III** in recognition of the impact his *Reactor Shielding Design Manual* has had on our field.

In April 1987, the RP&S Division will sponsor its first Topical Meeting (details in June 1986 *RSIC Newsletter*).

### Living with Radiation Published

The National Radiological Protection Board (NRPB), United Kingdom, has announced the release of a new edition of *Living with Radiation*. The new edition is an update of the 1981 revision of the original publication of 1973. It contains completely new chapters on nuclear reactors and waste management. The pamphlet's objective is to make factual information about the nature of ionizing radiation, its sources and effects, and the means of protecting people against it available to the public. Coverage ranges from everyday background radiation exposure to plans for dealing with a serious accident. It is available from Her Majesty's Stationery Office for £1.50.

### Personal Item

**Nick Tsoulfanidis** of the Nuclear Engineering Dept. of the University of Missouri at Rolla is taking a sabbatical year at CEA Centre d'Études Nucléaires de Cadarache in France doing shielding research. His address is DRNR/SPCI/LEPH, CEA Centre d'Études Nucléaires de Cadarache, Boite Postale No. 1, 13115 Saint Paul lez Durance, France.

### CONFERENCES, COURSES, SYMPOSIA

RSIC attempts to keep its users/contributors advised of conferences, courses, and symposia in the field of radiation protection, transport, and shielding through this section of the newsletter.

Should you be involved in the planning/organization of such events, feel free to send your announcements and calls for papers to RSIC.

### Simulation Fidelity Workshop II

The Defense Nuclear Agency and the Department of Energy have rescheduled the *Simulation Fidelity Workshop II*, for January 27-29, 1987, Naval Surface Weapons Center, White Oak, Maryland. The purpose of the workshop is to provide a high quality scientific forum for the dissemination of information on the ability to resolve system, subsystem, and component hardening issues using laboratory and underground simulation techniques.

Papers are solicited in the following areas: Underground Nuclear Testing Fidelity; Above Ground Testing Fidelity; Synergistic Testing; Strategic Defense Initiative Assets Survivability to X-ray Effects; Predictive Capabilities Which Support Survivability, Vulnerability, and Hardening Technology; and Future Simulation Guidance and Requirements. Papers up to the level of "Secret Restricted" will be accepted. Five copies of the summary must be submitted by **September 2, 1986**, to Dr. Wendland Beezhold, Division 1232, Sandia National Laboratories, P.O. Box 5800, Albuquerque, NM 87185 (phone 505-844-7830).

Information on registration and security procedures for authors and attendees may be obtained from Dr. Beezhold (address above) or Maj. E. Jay Stobbs/RAEV, Headquarters, Defense Nuclear Agency, Washington, DC 20305 (phone 202-325-7087).

### Calendar

Your attention is directed to the following additional events of interest to the radiation shielding and protection community.

#### September 1986

*International Conference on Nuclear and Radiochemistry*, Sept. 1-5, 1986, Beijing, sponsored by the Chinese Nuclear Society and Chinese Chemical Society. Contact: Prof. Liu Yuanfang, Dept. of Technical Physics, Beijing Univ., Beijing, People's Republic of China.

*International Conference on Reliable Fuels for Liquid-Metal Reactors*, Sept. 7-11, 1986, Tucson, Arizona, sponsored by ANS, AIME, and the U.S. Dept. of Energy. Contact: E. A. Aitken, Tech. Prog. Chairman, General Electric Co., Nuclear System Technology Div., 310 DeGuigne Dr., Sunnyvale, CA 94088 (phone 408-738-7237).

*Annual Information Meeting of the Canadian Nuclear Fuel Waste Management Program*, Sept. 7-12, 1986, Winnipeg, Canada. Contact: R. S. Dixon, Publicity Chairman, Nuclear Fuel Waste Management, Pinawa, Manitoba, Canada ROE 1L0.

*International Conference on Radioactive Waste Management*, Sept. 7-12, 1986, Winnipeg, Manitoba, Canada, sponsored by the Canadian Nuclear Society and ANS. Contact: Dr. T. S. Drolet, CFFTP, 2700 Lakeshore Rd. West, Mississauga, Ontario, Canada L5J 1K3 (phone 416-823-6654).

*Conference on the Treatment and Containment of Radioactive Wastes and Disposal in Arid Environments (Radwaste '86)*, Sept. 7-13, 1986, sponsored by Atomic Energy Corp. of South Africa, Electricity Supply Commission of South Africa, and Nuclear Development Corp. of South Africa. Contact: Radwaste Conf. Secretariat, NUCOR, Private Bag X256, Pretoria 0001, South Africa (phone 27-12-21-3311 ext. 677).

*14th SOFT—Symposium on Fusion Technology*, Sept. 8-12, 1986, Avignon, France. Contact: A. Torossian, Dept. de Recherches sur la Fusion Contrôlée, Centre d'Études Nucléaires de Cadarache, B.P. No. 1, F-13108 Ste-Paul-lez-Durance, France.

*Waste Management and Decontamination and Decommissioning: Spectrum '86*, Sept. 14-18, 1986, Niagara Falls, New York, sponsored by the ANS, U. S. Dept. of Energy, New York State Energy Research and Development Authority, Canadian Nuclear Society, Atomic Energy Society of Japan, European Nuclear Society, Nuclear Energy Society of France, in cooperation with the International Atomic Energy Agency. Contact: Anne E. Englert, Asst. General Chair, Spectrum '86, Technical Program, Box 191, West Valley, NY 14171-0191 (phone 716-942-3235).

*Computational Methods in Reactor Analysis*, Sept. 15-19, 1986, Knoxville, Tenn., sponsored by the College of Engineering, Univ. of Tennessee-Knoxville. Contact: Dr. P. F. Pasqua, Head, Nuclear Engineering Dept., The Univ. of Tennessee, Knoxville, Tenn. 37996 (phone 615-974-2525).

*Monte Carlo Analysis*, Sept. 15-19, 1986, Knoxville, Tenn., sponsored by the College of Engineering, Univ. of Tennessee-Knoxville. Contact: Dr. P. F. Pasqua, Head, Nuclear Engineering Dept., The Univ. of Tennessee, Knoxville, Tenn. 37996 (phone 615-974-2525).

*4th European Congress and 13th Regional Congress of the International Radiation Protection Association and Technical Exhibition*, Sept. 15-19, 1986, Salzburg, Austria, sponsored by the Austrian Association for Radiation Protection; Austrian Ministry of Health and Environmental Protection, Austrian Ministry of Science; and Austrian Research Centre. Contact: A. Hefner, Österreichischer Verband f. Strahlenschutz, A-2444 Seibersdorf, Austria (phone 02254 80-2509 or 2560).

*Advances in Reactor Physics and Safety Meeting*, Sept. 17-19, 1986, Saratoga Springs, N. Y., sponsored by ANS. Contact: Norman C. Francis, Knolls Atomic Power Lab., River Road, Schenectady, NY 12301, or Donald R. Harris, Rensselaer Polytechnic Inst., Troy, NY (phone 518-270-6407).

#### October 1986

*American Physical Society Nuclear Physics Division Meeting*, October 9–11, 1986, Vancouver, Canada. Contact: APS, 335 E. 45th St., New York, NY 10017 (phone 212-682-7341).

*Nuclear Transportation Issues*, Oct. 19–22, 1986, Charleston, South Carolina, sponsored by the Atomic Industrial Forum. Contact: Conference Office, AIF, 7101 Wisconsin Ave., Bethesda, MD 20814-4891 (phone 301-654-9260).

*Hanford Life Sciences Symposium: Radiation Protection—A Look to the Future—Celebrating Four Decades of Research at Hanford*, Oct. 21–23, 1986, Richland, Washington, sponsored by the Dept. of Energy. Contact: William J. Bair, Environment, Health and Safety Research Program, Battelle, Pacific Northwest Laboratories, P.O. Box 999, Richland, WA 99352 (phone 509-375-2421).

#### November 1986

*International Symposium on Nuclear Material Safeguards*, Nov. 10–14, 1986, sponsored by IAEA. Contact: IAEA, Conf. Service Section, P.O. Box 100, A-1400 Vienna, Austria.

*United Nations Conference for the Promotion of International Co-operation in the Peaceful Uses of Nuclear Energy*, Nov. 10–28, 1986. Contact: Executive Secretary, UN Conf. for the Promotion of Internatl. Co-operation in the Peaceful Uses of Nuclear Energy, Vienna International Centre, P.O. Box 500, A-1400 Vienna, Austria.

*International Symposium on Nuclear Material Safeguards*, Nov. 10–14, 1986, Vienna, sponsored by the IAEA. Contact: IAEA, Conference Service Section, P.O. Box 100, A-1400 Vienna, Austria.

*ANS and Atomic Industrial Forum Joint Meeting*, Nov. 16–21, 1986, Washington, D. C. Contact: D. G. Pettengill, ANS, 555 N. Kensington Ave., La Grange Park, IL 60535 (phone 312-352-6611 ext. 257).

*Workshop on Age-Related Factors in Radionuclide Metabolism and Dosimetry*, Nov. 26–28, 1986, Angers, France, sponsored by the Commission of the European Communities, and the French Atomic Energy Commission. Contact: G. B. Gerber, Commission of the European Communities, DG XII/PI, Rue de la Loi 200, B-1049 Brussels, Belgium (phone 2-2354041).

*Radiation Protection Problems Encountered in Major Development in New Techniques and Technologies*, 14th ATSR Symposium, Nov. 26–28, 1986, Paris, France, sponsored by the French Association for Technical and Scientific Radiation Protection (ATSR). Contact: Secretariat GRA-SPR, CEN de Saclay, F-91191 Gif-sur-Yvette, France.

#### January 1987

*4th Symposium on Space Nuclear Power Systems*, Jan. 12–16, 1987, Albuquerque, New Mexico, sponsored

by the Univ. of New Mexico, ANS, Sandia National Laboratories, and the U. S. Dept. of Energy. Contact: Mohamed S. El-Genk, Institute for Space Nuclear Power Studies, Chemical and Nuclear Engineering Dept., Univ. of New Mexico, Albuquerque, NM 87131 (phone 505-277-5442).

#### March 1987

*Radioactive Waste Management (WM 87)*, March 1–5, 1987, Tucson, Arizona, sponsored by the Univ. of Arizona. Contact: Technical Program Chairman, WM 87, Dept. of Nuclear and Energy Engineering, College of Engineering and Mines, Univ. of Arizona, Tucson, AZ 85721 (602-621-2475).

*Conference on Health Effects of Low Dose Ionizing Radiation: Recent Advances and Their Implications*, March 31–April 3, 1987, sponsored by the British Nuclear Energy Society. Contact: P. J. Ross, BNES, Institution of Civil Engineers, 1-7 Great George St., Westminster, London SW1P 3AA, United Kingdom (phone 01-222-7722 ext. 283).

#### April 1987

*23d Annual Meeting of the National Council on Radiation Protection and Measurements*, Apr. 8–9, 1987, Washington, D. C. Contact: NCRP, 7910 Woodmont Ave., Suite 1016, Bethesda, MD 20814.

*Radiation Protection and Shielding Conference*, Apr. 20–23, 1987, Knoxville, Tenn., sponsored by Oak Ridge National Laboratory. Contact: D. L. Selby, ORNL, P.O. Box X, Oak Ridge, TN 37831 (phone 615-574-6161).

*Theory and Practices in Radiation Protection and Shielding*, Apr. 22–24, 1987, Knoxville, Tennessee, sponsored by the ANS Radiation Protection and Shielding Division. Contact: Robert T. Santoro, Chairman, Technical Program Committee, ANS Topical Conference, RP&S, P.O. Box X, Oak Ridge, TN 37831 (phone 615-574-6084).

*Advances in Reactor Physics, Mathematics and Computation*, Apr. 27–30, 1987, sponsored by the European Nuclear Society, French Nuclear Energy Society, Commission of the European Communities, French Atomic Energy Commission, Electricité de France, ANS, Nuclear Energy Agency, Organisation for Economic Co-operation and Development. Contact: R. Alcouffe, Los Alamos National Laboratory, P.O. Box 1663, MS-B226, Los Alamos, NM 87545.

#### May 1987

*6th Symposium on Reactor Dosimetry*, May 31–June 5, 1987, sponsored by the American Society for Testing and Materials, and the Commission of the European Communities in co-operation with the International Atomic Energy Agency. Contact: G. R. Lamaze, National Bureau of Standards, Bldg. 235, Gaithersburg, MD 20899 (phone 301-921-2767).

**June 1987**

*Application of Computer Technology to Radiation Protection*, June 22-26, 1987, Bled, Yugoslavia, sponsored by the IAEA. Contact: Conference Service Section, IAEA, P.O. Box 100, A-1400 Vienna, Austria.

**August 1987**

*9th International Conference on Structural Mechanics in Reactor Technology (SMiRT-9)*, Aug. 17-21, 1987,

Lausanne, Switzerland, sponsored by the International Association for Structural Mechanics in Reactor Technology, the Commission of the European Communities, and the École Polytechnique Fédérale de Lausanne. Contact: Folker H. Wittmann, École Polytechnique Fédérale de Lausanne, SMiRT-9, Chemin de Bellerive 32, CH-1007 Lausanne, Switzerland.

## JULY ACCESSION OF LITERATURE

The following literature cited has been ordered for review, and that selected as suitable will be placed in the RSIC Information Storage and Retrieval Information System (SARIS). This early announcement is made as a service to the shielding community. Copies of the literature are not distributed by RSIC. They may generally be obtained from the author or from a documentation center such as the National Technical Information Service (NTIS), Department of Commerce, Springfield, Virginia 22161.

RSIC maintains a microfiche file of the literature entered into SARIS, and duplicate copies of out-of-print reports may be available on request. Naturally, we cannot fill requests for literature which is copyrighted (such as books or journal articles) or whose distribution is restricted.

**This Literature is on order. It is not in our system. Please order from NTIS or other available source as indicated.**

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