

NEWSLETTER

SEPTEMBER 1998

Radiation Protection and Shielding Division

<http://www-rsicc.ornl.gov/rpsd/RPSD.html>

Officers and Chairs of Standing Committees

Chair

Bernadette L. Kirk
Phone 423-574-6176
Fax 423-574-6182
blk@ornl.gov

Vice-Chair / Chair-elect

Robert C. Little
Phone 505-665-3487
Fax 505-665-5553
rcl@lanl.gov

Secretary

Jennifer E. Tanner
Phone 509-375-6626
Fax 509-375-6936
jennifer.tanner@pnl.gov

Treasurer

Jeffrey C. Ryman
Phone 615-576-4423
Fax 615-576-3513
cjr@ornl.gov

Immediate Past President / Nominating

Jess Greenberg
Phone 509-376-3482
Fax 509-376-6282
jess_greenberg@rl.gov

Program

Raymond T. Klann
Phone 630-252-4305
Fax 630-252-1774
klann@anl.gov

R. T. Perry

Phone 505-665-3521
Fax 505-667-7626
rtperry@lanl.gov

Membership

Jennifer E. Tanner
Phone 509-375-6626
Fax 509-375-6936
jennifer.tanner@pnl.gov

Benchmarks

Robert W. Roussin
Phone 423-574-6176
Fax 423-574-6182
rwr@ornl.gov

Honors & Awards

Michael Momeni
Phone 217-785-9925
Fax 217-524-0026
mhmomeni@heartland.bradley.edu

Standards Liaison

Bill Hopkins
Phone 301-417-3341
Fax 301-869-7084
whopkins@bechtel.com

Executive Committee

W. Mark Blumberg
Phone 301-415-1083
wmb1@nrc.gov

Joseph C. Braun (Ex-Officio)
Phone 630-252-5574
Fax 630-252-4500

Chairman's Message (Bernadette Kirk)

The year 2000, commonly referred to as Y2K, is fast approaching. Government, the public sector and private industries are gearing up for the possible implications, especially in the computer software area. The Radiation Protection and Shielding Division (RPSD) faces a different challenge - the problem of dwindling membership. The all time high of over 2000 members in the eighties is a thing of the past. Since 1993, membership has consistently dropped and now stands below 1500. The reality is we have fewer members. The reality is also that we still have the dedicated members we have had for years. While quantity has diminished, the quality of membership remains high.

The last three topical meetings, which RPSD hosted in the nineties, attest to the quality and dedication of our members. The 1994 Arlington, Texas, 1996 Falmouth, Massachusetts, and 1998 Nashville, Tennessee meetings posted significant attendance and paper presentations, thanks to the local organizers and the supporting national/international members of the technical program committees. Our next planned topical titled "RPS 2000: Radiation Protection for Our National Priorities: Medicine, the Environment and the Legacy" will be held in Spokane, Washington. The Y2K challenge is on us.

Program Committee News (Ray Klann)

The RPSD Program Committee recently completed a web-based review for the ANS Winter Meeting on the heels of the web-based review of the 1998 RPSD Topical Meeting. It was conducted fairly painlessly with only a few minor glitches along the way. I would like to thank Bernadette Kirk for loading the papers onto the server. In addition, I would like to thank everyone who participated in the review. I will work to improve the instructions to reviewers and other preliminary information to enhance the review for next year. If anyone is interested in being a reviewer for the next review please send me e-mail with your name, address, and phone numbers. We are always looking for assistance.

There are four sessions and two split sessions planned for the upcoming Winter Meeting in Washington, D.C. The sessions with dates, times, and rooms are as follows:

1. Dose Conversion Factors - Legal or Not (Panel Session), Monday morning, November 16th, Maryland A
2. Radiation Transport Analyses and Shielding Applications, Tuesday morning, November 17th, Maryland C
3. Greatest Hits of the 1998 RPSD Topical Meeting, Tuesday morning, November 17th, Maryland A
4. Free Release Criteria - Regulations and Analysis (Panel Session), Wednesday morning, November 18th, Delaware A
5. General Radiation Protection and Shield Design, Wednesday afternoon, November 18th, Delaware B
6. Characterization of Alpha-N Sources, Wednesday afternoon, November 18th, Delaware B

The next RPSD Topical meeting is currently in the planning stages. It is scheduled for September 17-21, 2000 in Spokane, WA. Keep the topical in mind over the next year and a half and plan on attending. It is a great way to get together with others in the radiation protection and shielding community and to renew relationships with old acquaintances.

Message from the Outgoing Chair (Jess Greenberg)

Greetings! The gavel has been turned over to Bernadette, but there are a few items still on my mind:

Involvement - A year ago we asked all of our Division members to get involved in our activities and operations. A number stepped forward. I hope the involvement process was successful! If not, try again; make your interests known to an officer or committee chairperson(s) named in this newsletter.

joebraun@anl.gov

Donald J. Dudziak
Phone 919-515-2301
Fax 919-515-5115
dudziak@ncsu.edu

Cris S. Eberle
Phone 208-533-7371
Fax 208-533-7471
cris@anl.gov

Jess Greenborg (Ex-Officio)
Phone 509-376-3482
Fax 509-376-6282
jess_greenborg@rl.gov

Dan T. Ingersoll
Phone 423-574-5262
Fax 423-574-9619
dti@ornl.gov

Jeffrey O. Johnson
Phone 423-574-5262
Fax 423-574-9619
joj@ornl.gov

Bernadette L. Kirk
Phone 423-574-6176
Fax 423-574-6182
blk@ornl.gov

Robert C. Little
Phone 505-665-3487
Fax 505-665-5553
rcl@lanl.gov

Jeffrey C. Ryman
Phone 423-576-3423
Fax 423-576-3513
cjr@ornl.gov

Keith B. Spinney
Phone 508-568-2039
Fax 508-568-3711
spinney@yankee.com

Jennifer E. Tanner
Phone 509-375-6626
Fax 509-375-6936
jennifer.tanner@pnl.gov

John D. Valentine
Phone 513-556-2482
Fax 513-556-3390
john.valentine@uc.edu

James K. Warkentin
Phone 254-897-8642
Fax 254-897-0545
kwarkentin@tuelectric.com

ANS Staff Liaison
Sharon Kerrick
Phone 708-579-8230
Fax 708-352-0499

Dedication and Commitment - (and talent) of our members makes our division successful. This year four individuals come to mind for outstanding contributions:

Ray Klann - *Program Committee Chairman*.

Ray as usual assembled and administered the technical sessions at our National Meetings and arranged for the necessary paper reviews. His committee also selects sites and negotiates (with National) calendar placement for our Topical Meetings.

Michael Momeni - *Honors and Awards Chairman*.

Michael administered our best paper award selection, submitted several candidates for Division and National awards, and distributed a Division "Honors and Awards Manual." The manual describes our awards and lists all previous recipients and past officers. Contact Michael for a copy.

Bob Roussin and Dan Ingersoll - *Year 98 Topical Meeting General and Technical Program Chairs*.

Bob and Dan ran the Nashville Topical Meeting with great enthusiasm and professional style.

Awards - Congratulations to our winners of the year:

Wilbur Bunch - Rockwell Award (lifetime achievement),

Bill Urban - Distinguished Service Award,

Dominic Napolitano, N. Romano, Nolan Hertel and Y. J. Yu - Best Paper Award (National Meeting), and

Tom Evans and John Hendricks - Best Paper Award (Topical Meeting).

Year 2000 Topical - The theme of our year 2000 topical meeting is "Radiation Protection for Our National Priorities: Medicine, the Environment and the Legacy". It will be in Spokane Washington at the Double Tree Hotel, September 17-21, 2000.

This meeting is a test! We have long speculated that our Topical would benefit if held joint with the Health Physics Society. This has been arranged (via the Mid Columbia Chapter of the Health Physics Society). We expect it will double meeting attendance and more than double the range of session topics, workshops, panel discussions, short courses and standards committee meetings, all within the interest range of our members and HPS members.

Mark your calendar! Spokane is glorious in September. The Double Tree is in the center of the city, on the world's fair site. Great for walking, shopping and enjoying the area. We are working on a number of day trips: Grand Coulee Dam, Lake Coeur d'Alene, the mines of Kellogg Idaho, Palouse country, the Okanogan and possibly an end-of-the week trip to Glacier National Park, returning on Sunday in time to catch the plane east.

Nominating Committee - it includes Bernadette, Nick Tsoulfanidis, Bill Hopkins, and me. Its an important task; best served by as many inputs as possible. Contact anyone of us.

Thanks for your support. See you in Spokane!

Standards committee liaison report (Bill Hopkins)

As of this date, thanks to the hard work of the committee members, all of the ANS-6 standards have been either reapproved or revised -- except for ANS6.1.1 on gamma-ray/neutron dose conversion factors which Dean Kaul of SAIC chairs. Dean will be reconstituting his working group to revise this standard to reflect the recent ICRP phantom changes and to possibly look at accelerator energies currently outside the existing standard. A special invited session will be held on this subject at the forthcoming ANS winter meeting in Washington, DC.

Report on 1998 RP&S Topical Conference (Dan Ingersoll)

The 1998 ANS Radiation Protection and Shielding Division Topical Conference was held in Nashville, Tennessee, on April 19-23. The conference was a rousing success with over 170 attendees from 16 different countries. The meeting got off to an excellent start with provocative and stimulating presentations by Theodore Rockwell and Alan Waltar. Rockwell addressed the issues associated with the debate on low level radiation and presented the attendees with some tough challenges and responsibilities for our technical community. In his usual enthusiastic style, Waltar reviewed the current and projected needs for nuclear energy and nuclear technologies for a wide range of applications. Both talks gave definitive reasons why we should be optimistic about the future for our field.

The technical program contained approximately 125 presentations covering a wide range of traditional and emerging topics, including: Monte Carlo and discrete ordinates methods, reactor pressure vessel dosimetry, nuclear data, benchmark experiments, etc. The most rapidly growing area appears to be methods and analyses for nuclear medicine applications, since the number of sessions for this topic increased from one in 1996 to three at this meeting. Building on this interest, Dr. Gary Smith presented the banquet talk on the topic of current and developing technologies for nuclear medical imaging. The conference was followed by a two-day workshop, which was also well attended, covering the DORT and TORT discrete ordinates radiation transport codes.

In addition to the technical program, there was a lot of fun and good food. A highlight was the dinner cruise on the General Jackson riverboat. All in all, the meeting reinforced the merits of the RP&S policy of bi-annual topical meetings. The next topical conference is scheduled for September 2000, in Spokane, Washington.

Blizard Scholarship (Dan Ingersoll)

The RP&S Scholarship Committee reviewed applications from seven candidates and selected Brian P. Hanson from the University of Michigan as the next recipient of the \$1000 Blizard Scholarship. Congratulations, Brian!

The endowment account used to finance the scholarship continues to grow slowly and it is hoped that we can increase the stipend level within the next year or two. Of some concern this year is that all but one application came for the same university, indicating a lack of attention to this opportunity at the many other nuclear engineering programs in the country. Faculty members are encouraged to identify worthy graduate students within their programs and to assist them in submitting an application.

SINBAD Project Update (Hamilton Hunter)

SINBAD (Shielding Integral Benchmark Archive and Database) has moved in a new direction by preparing HTML ready documents from previously formatted ASCII and TIF benchmark information. The international contributions include 20 fission/fusion/accelerator benchmarks sent from the NEA Databank for a total of 33 benchmarks in SINBAD. Both RSICC (Radiation Safety Information Computational Center) and the NEA Databank distribute SINBAD, RSICC through its DLC-191 package on CD-ROM.

This summer, RSICC has compiled 16 fission/fusion/accelerator benchmarks and updated a search engine using Visual FoxPro for Windows 95 operating systems. The html documents would be searched either through the sophisticated VFP engine, or by use of a keyword search in an html browser. The SINBAD 98 release is targeted for August 25, 1998. Visit our WEB site at:

<http://www-rsicc.ornl.gov/BENCHMARKS.html>

9th International Conference on Radiation Shielding (ICRS-9) October 17-22, 1999, Tsukuba, Ibaraki, Japan

Planning for the Ninth International Conference on Radiation Shielding is well underway. The theme for the Conference is "Half a Century of Radiation Shielding Research and its Evolution into the Next Era." The conference will be held in Tsukuba, Ibaraki, Japan on October 17-22, 1999. The conference is being organized and sponsored by JAERI, with co-sponsorship by the OECD/NEA/NSC, the Atomic Energy Society of Japan, and RSICC. This conference follows previous ones at Arlington, Texas USA (1994), at Bournemouth, UK (1988), and at Tokyo, Japan (1984). The series has explored the scientific, technological, and engineering issues associated with radiation shielding in broad nuclear energy systems, accelerator facility, space, and general environments. It is one of the premier international radiation shielding relevant events, regularly drawing some 300 of the world's top scientists.

Abstracts for the conference must be submitted by the end of December 1998. Papers are solicited in the following topics:

01. Fission Reactor Shielding
02. Accelerator and Target Shielding
03. Fusion Reactor Shielding
04. Aircraft and Spacecraft Shielding
05. Radioactive Waste Radiation Protection & Safety
06. Fuel Cycle Facility Shielding
07. Transportation and Storage of Radioactive Materials

08. Decontamination and Decommissioning
09. Impact of Radiation and Radioactivity to Environment
10. Radiation Application in Medical and Industrial Uses
11. Shielding Calculations (Monte Carlo Methods, Deterministic Methods, Point Kernel and Other Analytical Methods)
12. Shielding Experiments (Benchmark Experiments, Integral and Mockup Experiments)
13. Shielding Design
14. Methods Verification and Validation
15. Visualization and User Interface
16. Source Term Evaluation
17. Skyshine and Streaming
18. Nuclear Data for Shielding
19. Field Characterization
20. Radiation Dosimetry
21. Radiation Detection and Measurement
22. Shielding Materials and Irradiation Effects
23. Activation and Induced Radioactivity
24. Exposure Evaluation and Protection

For full information, potential authors and attendees should visit the Web site for the conference, at:
<http://icrs9.tokai.jaeri.go.jp>

Council on Ionizing Radiation Measurements and Standards - October 1998

The Seventh Annual Meeting of the Council on Ionizing Radiation Measurements and Standards (CIRMS) will be held at the National Institute of Standards and Technology, Gaithersburg, Maryland, October 19-21, 1998.

CIRMS is a non-profit, US Council, with representation from academic, professional and industrial associations and organizations, government agencies and interested individuals. CIRMS provides an opportunity for open discussion of current issues concerning ionizing radiation and future directions of measurements and standards.

The focus of the meeting will be the role of the National Laboratories in ionizing radiation measurements and standards. The National Laboratories play pivotal roles in standards development and implementation and in the development of state-of-the-art technologies for ionizing radiation measurements and standardization. Sessions will include medical applications, occupational radiation protection, public and environmental radiation protection, and industrial applications and materials effects, each session addressing the subject of one of the CIRMS Science and Technology Subcommittees.

For more information contact Katy Nardi, (770) 622-0026, KatyNardi@aol.com.