



RPSD Newsletter

September, 2007

American Nuclear Society Radiation Protection and Shielding Division

<http://rpsd.ans.org>

Message from the Chair

John C. Wagner

Greetings fellow RPSD members!

I am pleased to report that under the leadership of Andrew Hodgdon, our outgoing Chair, the RPSD is healthy and improving. As many of you know, the performance and vitality of each Division is evaluated annually by several metrics. These evaluations provide insight into our strengths, as well as our areas for potential improvement. The 2006 metrics indicate notable improvements in Meetings and Governance. Also, our membership is fairly steady at ~1300 members and our balance sheet is comfortably positive. I would like to express my sincere appreciation to our current and outgoing Officers, Committee Chairs, and Executive Committee members for their efforts associated with achieving these improvements and positive conditions.

Turning now to the future, this spring you elected three new members to the RPSD Executive Committee and new Officers. The newly elected Executive Committee members are David Anderson, Everett Redmond II, and X. George Xu. John Hendricks is the new Chair-Elect, becoming Chair in June 2008. Eric Shores is Secretary and Arzu Alpan is Treasurer. I encourage all members to communicate your suggestions and ideas for new initiatives and/or improvements to the RPSD Officers and/or Committee Chairs.

Regarding upcoming meetings and opportunities for sharing information and experiences, RPSD is sponsoring four Technical Sessions and three Tutorials at the upcoming Winter Meeting; the Radiation Protection and Shielding Division and 11th International Conference on Radiation Shielding (RPSD2008/ICRS-11) will take place April 13-18 in

Callaway Gardens, Georgia; and the RPSD2010 meeting is being planned for Las Vegas, Nevada in early 2010 (see more details on each of these meetings below). I hope many of you will participate and contribute to making these meetings successful.

In closing, thank you for the opportunity to serve the RPSD, and I look forward to seeing many of you next month in Washington, DC.

Meetings & Programs

**John Hendricks, Program Committee Chair
Charlotta Sanders, Assistant Program Chairman**

RPSD2008/ICRS-11, Callaway Gardens, Georgia, April 13-18, 2008

This conference is a collaboration of the Radiation Protection and Shielding Division (RPSD2008) and the 11th International Conference on Radiation Shielding (ICRS-11). This conference explores the scientific, technological, and engineering issues associated with particle and ionizing radiation shielding in its broadest context, including nuclear energy systems, accelerator facilities, space, and other radiation environments. It is one of the premier international radiation shielding events, regularly drawing hundreds of the world's top scientists and engineers. The technical program will be comprised of plenary sessions, parallel oral technical sessions, tutorials, and poster sessions.

The call for abstracts has been extended to October 10. Please consult the conference website for additional details: <http://icrs11.me.gatech.edu/>.

The conference will take place at the Mountain Creek Conference Center at Callaway Gardens in Pine Mountain, Georgia, USA. Pine Mountain is located 60 minutes southwest of Atlanta, Georgia. Callaway Gardens is a man-made landscape in a unique natural setting. Conceived and created by Cason J. Callaway and his wife Virginia Hand Callaway, Callaway Gardens is a wholesome family environment where all may find beauty, relaxation, inspiration, and a better understanding of the living world. With many of the native trees and shrubs in bloom, April is a great time to visit Callaway Gardens.

ANS Winter Meeting, Washington, D.C., November 11 – 15, 2007

Special Code Tutorials:

The RPSD program at the Winter Meeting features new invited sessions and tutorials on important computational tools for radiation protection and shielding: TRIPOLI, SCALE, and MCNPX. For TRIPOLI and SCALE there will be special invited paper sessions by the developers. All three codes will have a separate (free) hands-on tutorial where you can set up and practice with real problems.

TRIPOLI is the foremost reactor modelling Monte Carlo code in France. It features continuous-energy physics for neutrons and photons, advanced and automatic variance reduction strategies, 3D geometry, full time-dependence and highly parallel operation. It is used principally for shielding and criticality. TRIPOLI is the major Monte Carlo design

tool for the French nuclear industry, one of the most advanced nuclear program in the world, and is used for fast reactors, thermal reactors and advanced nuclear design.

The Monte Carlo SCALE code system includes KENO, the foremost nuclear criticality code in the US; the TSUNAMI sensitivity/uncertainty analysis tools; the new MONACO Monte Carlo radiation shielding code coupled with the MAVRIC automated 3-D variance reduction sequence; the TRITON reactor physics module that couples 2-D deterministic or 3-D Monte Carlo radiation transport codes with the ORIGEN-S depletion/decay code for reactor physics and radiation source term applications.

The MCNPX tutorial will again be offered on Thursday afternoon of the meeting and is designed for those who have never run a radiation protection and shielding Monte Carlo code, or would like to try recent capabilities of MCNP/X.

Those wishing to attend the tutorials can either use communal laptops provided at the session or have the codes loaded on their personal laptops by ordering the codes from the Radiation Safety Information and Computational Center in Oak Ridge, TC, <http://rsicc.ornl.gov> several weeks before the meeting.

RPSD will also have three contributed paper sessions.

Student Conference, Texas A&M, February 28-March 1, 2008

RPSD continues to support student conferences. We have donated \$1000 and are seeking a volunteer to support one of the technical session tracks and be a judge. Please contact Matthew Gidden, matthew.gidden@gmail.com , 225-892-3192.

MCD2009, Saratoga Springs, May 3-7, 2009

Saratoga Springs, New York, will host 2009 Mathematics and Computation Topical Meeting at the Saratoga Hotel and Conference Center. <http://local.ans.org/ne-ny/>.

RPSD2010, Las Vegas, NV, April 19-23, 2010 - Rob Hayes, NSTec

Las Vegas will host the RPSD2010 topical meeting as a joint topical meeting with the Isotopes and Radiation Division (IRD). The RPSD executive board approved this venue in Boston's June meeting. The local organizing team is largely composed of the ANS local section in Las Vegas and they are delighted to be selected to host this world class technical conference. Tours of the Nevada Test Site and Yucca Mountain are expected along with other venues. One sponsor has been identified already and more are expected. Given the stature of conference historically and the planned venue, this could be one of the more well-attended conferences in RPSD history with the added scope of our sister division (IRD). The publication plan is expected to closely resemble that of the Carlsbad conference as would the Technical Program.

RPSD Governance Meetings

All members of RPSD are invited to the RPSD Technical Program Committee Meeting and the RPSD Executive Committee Meeting on Monday, November 12, from 4-7 p.m., at the Washington ANS meeting.

ANS 6 Standards Report

Bill Hopkins, Standards Chair

1. Based on feedback from the RPSD newsletter poll on resurrecting ANS-6.4.3, "Gamma-Ray Attenuation Coefficients & Buildup Factors for Engineering" as an official ANSI standard, Jeff Ryman has agreed to chair a new working group for this. Dick Faw has also agreed to join Jeff in this project. A new PINS form is in the works. Contact Jeff at rymanjc@excite.com
2. Dick Faw and his working group completed revisions of the following standards which were approved by ANSI in September:
 - a. ANS-6.4-R2006, "Nuclear Analysis & Design of Concrete Radiation Shielding for Nuclear Power Plants" (revision of ANSI/ANS-6.4-1997; R2004)
 - b. ANS-6.4.2-R2006, "Specification for Radiation Shielding Materials" (revision of ANSI/ANS- 6.4.2-1985; R1997; R2004).
3. John Wagner and his working group received ANSI approval in March of the reaffirmation of ANSI/ANS-6.6.1-1998, "Calculation and Measurement of Direct and Scattered Gamma Radiation from LWR Nuclear Power Plants."
4. Jennifer Tanner and her working group received ANSI approval in April of the reaffirmation of ANSI/ANS-6.3.1-1998, "Program for Testing Radiation Shields in Light Water Reactors."
5. F. Arzu Alpan as reconstituted the working group for ANS-6.1.2, "Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants" (revision of ANSI/ANS-6.1.2-1999). The project has had its PINS forms approved and a new draft standard is in development.
6. Nolan Hertel and his working group are reviewing a new revision of ANS-6.1.1-200X, "Dose Conversion Coefficients."

RPSD Officers and Committees

Officers:

John Wagner, ORNL, Chair (2008), wagnerjc@ornl.gov
John S. Hendricks, LANL, Vice-Chair/Newsletter (2008), jxh@lanl.gov
Erik Shores, LANL Secretary (2008), eshores@lanl.gov
F. Arzu Alpan, Treasurer (2008), alpanfa@westinghouse.com

Executive Committee: (year term expires)

Charlotta Sanders, YMP (2008), charlotta_sanders@ymp.gov
Jeremy Sweezy, LANL (2008), jsweezy@lanl.gov
Man-Sung Yim, NCSU (2008), yim@ncsu.edu
Robert Hayes, Bechtel-Nevada, (2009), hayesrb@nv.doe.gov
Jennifer Tanner, PNL (2009), Jennifer.tanner@pnl.gov
Larry Townsend, University of Tennessee (2009), ltownsen@tennessee.edu
David R. Anderson (2010), d.anderson@snet.net
Everett L. Redmond II (2010), elr@nei.org
X. George Xu (2010), xug2@rpi.edu

Standing and Special Committee Chairs:

RPSD 2008 Atlanta – Nolan Hertel, Georgia Tech, harl.hertel@me.gatech.edu
Membership – Charlotta Sanders, YMP, Charlotta_sanders@ymp.gov
Honors and Awards – Dave Court, LANL, david.court@pentagon.af.mil
Scholarship – John Poston, TAMU
Program – John S. Hendricks, LANL, jxh@lanl.gov
- Charlotta Sanders, YMP (2008), charlotta_sanders@ymp.gov
Benchmarks – Dick Amato, BAPL, amators@bettis.gov
Standards – Bill Hopkins, Bechtel, retired, wchopkins@insightbb.com
Bylaws – Eric Shores, LANL, eshores@lanl.gov
Nominating – Ray Klann (2008), klann@anl.gov
Web-site – Jeremy Sweezy, LANL, jsweezy@lanl.gov
ANS Board Liaison – Herb Fontecilla