



RPSD Newsletter

March, 2010

American Nuclear Society Radiation Protection and Shielding Division

<http://rpsd.ans.org>

Message from the Chair

Robert B. Hayes

The upcoming topical is proving to be quite impressive and I strongly encourage all members to attend even if they are not presenting. The preliminary technical program is currently posted at www.rpsd2010.com which demonstrates how very robust this meeting will be. We have strong tracks in Medical Physics, Shielding, Radiation Transport Calculations and Radiation Protection. Given that this is the only scientific meeting on the planet which focuses on radiation shielding, it is not surprising that we have been able to attract the best and the brightest around the world to come and show their latest and greatest in innovation, design and methodology to solve the problems of the 21st century. More than a few papers are showcasing some very novel applications and techniques which should be very attractive to a large number of division members.



We have a generous selection of tutorials and many hosted meals and breaks. The tour of the Nevada Test Site, the UNLV Radiochemistry/Health Physics/Nuclear Engineering capabilities and Varian's manufacturing facility for accelerators and homeland security systems should likewise pique the interest of many if not most of our members. We have arranged engaging and entirely relevant plenary speakers and have basically packed out the meeting space with 4 concurrent tracks morning and afternoon from 6 respective topic areas. The hotel rooms are not only good quality but priced well below standard per diem rates in the range of 50\$ per night and if that were not enough, flights in and out of Vegas tend to be the most affordable available. I think I can speak for the entire executive committee when I say our topical meetings are the best we have to offer as a

division and this is where we shine the most. If you have only one meeting you can attend this year, I strongly encourage you to attend the RPSD topical. For those of you who simply cannot make this meeting, the division does plan to identify a handful or two of the best papers from the meeting and allow them the option to again present their work at a "Best of RPSD2010" session at the national winter meeting in November.

The past and present program chairs (John Hendricks, Charlotta Sanders and Eric Burgett) have done a fantastic job increasing the utility of the division at national meetings as well. We still enjoy regular offerings of alternating code tutorials and a healthy variety of technical sessions. We were also able to offer a panel session at the last national meeting in DC on Ethics in Professional Engineering which I felt was a substantial step forward in promoting ethical behavior for nuclear engineers in general. The division intends to continue this practice at each winter meeting in such a way as to simultaneously allow licensed professional engineers to attend and obtain professional development hours towards their license renewal requirements. I personally feel that stepping forward in this way is a badge of honor to our division in that we consider this of sufficient priority to give it this regular attention at national meetings. The presentations from the DC meeting are currently posted on the division website (thanks to our webmaster Eric Shores) at <http://rpsd.ans.org/>. Please thank our program chairs when you see them for the great job they have done in improving our service to members and society in general at our national meetings (and yes the topicals).

Our outgoing chair managed to accomplish quite a bit in terms of getting our rules and bylaws updated (again thanks also to Eric Shores) leaving me much needed leeway to focus on supporting the technical program in various ways (such as the topical). I invite all members who attend the national meetings to also visit your division governance meetings. These are posted in the final program and as of this writing, national has informed us our normal time slots of Monday evening will no longer be allowed and the new time has not been decided.

Meetings & Programs

Charlotta Sanders & Eric Burgett, Technical Program Chairs

In addition to RPSD's standard sessions featuring *Computational Resources for Radiation Modeling* and *General Topics in Radiation Protection and Shielding*, we will also offer a session on *Modeling and Simulation Efforts for Nuclear Nonproliferation* as part of our program at the ANS 2010 Annual Meeting in San Diego, CA. We are also adding the roundtable discussion on *Current Topics in Radiation Protection and Shielding* back to our program. Furthermore, a panel discussion on the *Helium-3 Shortage and the Future of Neutron Detection* will be featured.

RPSD is also sponsoring a tutorial at the ANS 2010 Annual Meeting. The tutorial, *Point Kernel Shielding Techniques: A Tutorial on Quads/QAD MOD*, will explain the basics of the point kernel method and then introduce the QADS package—a useful

multidimensional point kernel shielding program—in SCALE. In addition, students will be walked through several different point kernel shielding examples.

Hope to see you in San Diego!

ANS 6 Standards Working Group

Bill Hopkins

Following is a summary of the ANS 6 standards working group status:

1. John Wagner has asked to step down as chair of ANS 6.6.1 after successfully getting the reaffirmation of ANSI/ANS-6.6.1-1998, "Calculation and Measurement of Direct and Scattered Gamma Radiation from LWR Nuclear Power Plants." Please contact Bill Hopkins at wchopkins@insightbb.com if you would like to chair the next revision of this standard.

2. 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

3. F. Arzu Alpan's 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) has been re-reaffirm by ANSI. This reaffirmation was so that they may have more time to update the standard.

4. Nolan Hertel is reviewing the logistics of a new revision and/or a temporary reinstatement of ANS-6.1.1-1991, "Dose Conversion Coefficients" and the possible separation of the standard into two separate standards. One on operational quantities --- ambient dose equivalent, personal dose equivalent, and directional dose equivalent. The second one would be for effective dose whose definition and radiation weighting factors were just changed in ICRP Publication 103.

5. Jennifer Tanner's working group's standard received ANSI final approval on the reaffirmation of ANSI/ANS-6.3.1-1987 (R2007).

6. Dick Faw (ANS-6.4) received word from ANS headquarters about an invitation to participate in a Nuclear Energy Standards Coordination Collaborative (NESCC) task group on concrete. This relatively new group is sponsored by the American National Standards Institute (ANSI) and the National Institute of Standards Technology (NIST). If you have interest, please contact the convener:

Dr. Clarissa Ferraris, NIST.
Email: clarissa@nist.gov
Tel: (301) 975-6711

and Dick Faw at fawre@triad.rr.com

New RPSD Student Member Award

RPSD is now awarding their student members who contribute to RPSD sessions in ANS National Meetings, starting with the upcoming 2010 ANS Annual Meeting in San Diego, CA!! Students will be awarded if they meet all conditions listed below.

- the student is an RPSD student member
- the student submits his/her summary to an RPSD session for an ANS National Meeting and the summary gets accepted
- the student is the primary author of the summary
- the student presents the summary at the ANS National Meeting

The award is up to \$100 per qualifying student, and will be distributed to multiple students if there is more than one student that meets the conditions listed above. Based on participation, a minimum amount of \$100 will be allocated for each ANS National Meeting for the RPSD Student Member Award.

Upcoming Topicals

**Radiation Protection and Shielding Division, Isotopes and Radiation
Division and the Biology and Medicine Division**

Joint Topical Meeting - April 19-23, 2010

Palace Station Hotel and Casino, Las Vegas, NV

www.RPSD2010.com

We expect an extremely well hosted meeting both through vendors and the conference itself. There is no other venue in the world which specializes in scientific and technical advances relating to radiation shielding like the RPSD topicals where all associated and allied fields are welcomed and typically very well represented. Come join us in “fabulous” Las Vegas Nevada where some of the most wonderful services this division has to offer are realized in the most practical venue of our biennial topical meetings.

RPSD Officers and Committees

Officers:

Chair: Robert Hayes, WIPP, robert.hayes@wipp.ws

Vice Chair: Charlotta Sanders, UNLV, sander59@unlv.nevada.edu

Secretary: F. Arzu Alpan, Westinghouse, alpanfa@westinghouse.com

Treasurer: Scott Mosher, ORNL, moshersw@ornl.gov

Executive Committee: (year term expires)

Richard S. Amato (2011), padamato@verizon.net

John D. Court, LANL (2011), davec@lanl.gov

Michelle Sutton Ferenci, Penn State (2011), michelle.sutton@mindspring.com

Everett L. Redmond II, NEI (2010), elr@nei.org

X. George Xu, RPI (2010), xug2@rpi.edu

Wayne Newhauser, Univ. of Texas M.D. Anderson Cancer Center (2012),
wnewhauser@mdanderson.org

Shaheen Dewji, Georgia Tech (2010), shaheen.dewji@gatech.edu

Robert Singleterry, NASA (2012), robert.c.singleterry@nasa.gov

Pedro Vaz, ITN (2010), pedrovaz@itn.pt

Standing and Special Committee Chairs:

Program – Charlotta Sanders, UNLV, sander59@unlv.nevada.edu & Eric Burgett,
Georgia Tech., eric.burgett@nre.gatech.edu

Membership – Arzu Alpan, Westinghouse, alpanfa@westinghouse.com

WWW Site & Bylaws - Erik Shores, LANL, eshores@lanl.gov

Honors and Awards – Dave Court, LANL, davec@lanl.gov

Scholarship – John Poston, TAMU, j-poston@tamu.edu

Benchmarks – Dick Amato, BAPL, amators@bettis.gov

Standards – Bill Hopkins, Bechtel, retired, wchopkins@insightbb.com

ANS Board Liaison – Joe F. Colvin

Staff Liaison – Sharon S. Kerrick

Ex-Officio – Donald R. Hoffman, John C. Wagner, John S. Hendricks