



Fall 2011

<http://rpsd.ans.org>

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## Message from the Chair

Dr. Arzu Alpan

*Westinghouse Electric Company*

Greetings RPSD members!

I am very excited and pleased to be in my one-year term as Chair of the Radiation Protection and Shielding Division. I would like to thank our outgoing Chair, **Dr. Charlotta Sanders**, for her leadership during her position.

This year, the RPSD Executive committee selected **Professor Alireza Haghghat** and **Mr. Shiaw-Der (Steve) Su** to receive the RPSD Professional Excellence Award. The basis of the RPSD Professional Excellence Award is usually a major contribution to the state-of-the-art, an important publication, a major technical achievement, or a sustained record of significant accomplishment and technical excellence. **Prof. Ali Haghghat** received this award in recognition of his outstanding contributions to the development of deterministic and stochastic particle transport methods and their application to commercial and research reactors, homeland security, and computational medical physics. **Mr. Steve Su** received this award in recognition of his exceptional contributions in the development, design, engineering, and licensing of various reactor systems including gas-cooled reactors, light water reactors, and fast breeder reactors, as well as spent fuel storage and transportation systems, for more than 30 years.

The recipient of the 2011 RPSD Service Recognition Award is **Dr. John Hendricks** for his past and current service to RPSD. **Dr. Hendricks** served as RPSD Chair and RPSD Program Committee Chair. He continues to contribute to RPSD with his well known and praised Monte Carlo Dice Seminar and MCNP/MCNPX Monte Carlo Tutorial that he instructs at ANS Meetings, sponsored by RPSD.

The Best RPSD Professional Paper Award recipients of the ANS 2011 Annual Meeting are **Hatice Akkurt**, **Dorothea Wiarda**, and **Keith Eckerman** (ORNL) for their paper titled "Recent Updates to Radiation Organ Dose Estimation Tool PIMAL," presented at the Radiation Protection and Shielding: General Session.

Please join me in congratulating the Professional Excellence, Service Recognition, and Best Professional Paper Award winners. Please support the Professional Excellence and Service Recognition Awards by sending your nominations to the RPSD Executive Committee.

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I believe most of you are aware of the upcoming 12<sup>th</sup> International Conference on Radiation Shielding (ICRS-12) & 17<sup>th</sup> Topical Meeting of the Radiation Protection and Shielding Division (RPSD-2012) that will be held in Nara, Japan, September 2-7, 2012. The conference will commence with a special session summarizing the facts and circumstances surrounding the Fukushima accident and consequent environmental assessment and recovery. Please visit the web-site <http://www.icrs12.org/> for more information. I am looking forward to your participation at this important conference.

One of my efforts during my RPSD Chair position will be to focus on increasing the involvement of students and young members in RPSD, and continuing to support student activities. RPSD is providing financial support with an amount of \$2,500 to the 2012 ANS Student Conference, which will be hosted by the University of Nevada, Las Vegas Student Chapter. RPSD will be co-sponsoring three tutorials with the Young Members Group (YMG) at the ANS 2011 Winter Meeting including the Monte Carlo Dice Seminar, SCALE/ORIGEN, and VESTA tutorials. The latter will be co-sponsored with YMG and the Reactor Physics Division (RPD). We continue to have an Executive Committee Member position allocated for an RPSD student, where we provide travel support to the student for his/her attendance to ANS meetings. We have recently started awarding our students who present papers in RPSD sessions at ANS National Meetings by giving RPSD Best Student Paper Awards that involves a \$100 monetary award to the RPSD student. I will be preparing a survey for the student members in an effort to find ways to increase their involvement within RPSD. I strongly encourage student member participation in RPSD by paper submissions at both ANS National Meetings and Topical Meetings as well as by their involvement in our governance activities, and invite them to our executive committee meetings.

An area that I will be seeking help from RPSD members is ideas on RPSD sessions which you would like to see at ANS National Meetings. To broaden the current RPSD session topics, we plan to collaborate with the Computational Medical Physics Working Group (CMPWG) in order to co-sponsor a session and/or a tutorial related to applications such as computational benchmarks on phantoms and deterministic and stochastic approaches to radiation therapy and diagnostic problems. Further information on CMPG is available at <http://cmpwg.ans.org/>.

**Bill Hopkins**, the ANS-6 (Radiation Protection and Shielding Standards) Subcommittee Chair, passed away in April 2011. I am very saddened for the loss of my colleague. **Bill Hopkins** was very active in RPSD for many years; he was the RPSD Chair in 1992 and received the RPSD Service Recognition Award in 1993. He was involved in ANS Standards for many years and was the ANS-6 Subcommittee Chair since 1991.

I would like to thank **Charlotta Sanders** for accepting to serve as the ANS-6 Subcommittee Chair, **Janice Arwood** for accepting to take over the RPSD Membership Committee Chair position from me, and **Martin Williamson** for recently volunteering to help on the RPSD honors and awards activities. Finally, I would like to welcome and congratulate our executive committee members who were elected this year:

**Nolan E. Hertel** - Vice Chair

**Scott W. Mosher** - Secretary

**Joel M. Risner** - Treasurer

**Erik F. Shores** - Executive Committee

**Douglas E. Peplow** - Executive Committee

**Steven J. Nathan** - Executive Committee

**Arkady Serikov** - Executive Committee

**Shaheen A. Dewji** - Executive Committee

Please feel free to contact me with any suggestions for the improvement of RPSD.

Sincerely,

Arzu Alpan

[alpanfa@westinghouse.com](mailto:alpanfa@westinghouse.com)

## ANS-6 Subcommittee Chair Passes Away



**William C. Hopkins** passed away April 26, 2011. He joined the American Nuclear Society (ANS) as a student in 1967 and became active in standards in 1975. Over the years he chaired several working groups and helped initiate and direct many standards. In 1991 he took over as ANS-6 Subcommittee Chair and became an ex-officio member of the N17 Committee on Research Reactors, Reactor Physics, Radiation Shielding and Computational Methods.

Hopkins has served the Society as a member of the Standards Board and as a Technical Program Chair. He has also represented ANS at several U.S. Nuclear Regulatory Commission-sponsored meetings of standards development organizations. In 2000, Hopkins was the recipient of the ANS Standards Service Award. Hopkins enjoyed a thirty-year professional career in the field of nuclear engineering with the Bechtel Group, Inc. He was particularly interested in introducing the field of engineering to a new generation of students and participated as a member of the Junior Engineering Technical Society Board of Directors.

## Honors & Awards

### RPSD Members Receive Presidential Citation Award

We would like to recognize RPSD members **Charlotta Sanders** and **Glenn Sjoden**, who received the Presidential Citation Award for their contributions to the American Nuclear Society's response to the accident at the Fukushima Daiichi nuclear plant in Japan. Their work during the days following the event ensured that credible information about nuclear science and technology was provided to the media, decision-makers, and the general public.

### Submit Nominations for the Rockwell Lifetime Achievement Award

The Rockwell Lifetime Achievement Award is based on long-term or lifetime achievement in research, technology development, or education in the fields of radiation protection, shielding or dosimetry. It is expected that most recipients will have been long-time active members of ANS. Moreover, most recipients will be authors of publications that have made significant contributions to the art of radiation protection and shielding.

The award, which consists of a plaque and a \$500 monetary award, is made no more than once per year and may not be awarded every year. After election by the Executive Committee of the Radiation Protection and Shielding Division, the award is presented by the RPSD Chair at a suitable occasion. It may be given posthumously. Please send your nominations, accompanied by supporting documentation, by October 27, 2011, to Martin Williamson at [williamsonmr@y12.doe.gov](mailto:williamsonmr@y12.doe.gov).



## RPSD Student Executive Update

**Shaheen Azim Dewji**

*Georgia Institute of Technology*

### Student Participation at the ANS National Level

The Radiation Protection and Shielding Division continues to foster student development at the National ANS Meeting-level by awarding their student members who contribute to RPSD sessions in ANS National Meetings.

Students will be eligible for the award if they meet all conditions listed below:

- The student is an RPSD student member (this can be done when you apply/renew National ANS Membership).
- The student submits his/her summary to an RPSD session for an ANS National Meeting and the summary is 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 may be awarded to multiple students per ANS national meeting if there is more than one student that meets the conditions listed above.

Watch for paper submission deadlines and encourage students to contribute to RPSD sessions!

### Coming Soon! 2012 ANS Student Conference – University of Nevada, Las Vegas

The University of Nevada, Las Vegas will be hosting the 2012 American Nuclear Society Student Conference on April 12-15, 2012 in Las Vegas, NV! Guests will be staying at the all-suite Alexis Park Resort, just two blocks from the UNLV campus, where all technical events will occur. Several exciting events are planned such as tours of the Nevada National Security Site, Varian Medical Systems and the Atomic Testing Museum. On Thursday evening, a 1950's themed "Atomic Ages" social will be hosted on the rooftop of the Alexis Park Resort featuring cold war and testing era music. Topics for technical sessions and workshops will be based off of ANS professional divisions including, but not limited to radiation protection, shielding and radiation detection. A special session highlighting radiochemistry research will also be a new part of the student conference this year. For more information about the conference or to get involved with judging or chairing technical sessions, please visit our website at [www.conference.unlvans.org](http://www.conference.unlvans.org).

-- **Vanessa Sanders**, *General Chair, Program*  
**Sherry Faye**, *General Chair, Logistics*

#### *Important Dates to Watch For:*

**February 1, 2012**

Conference registration opens

**March 1, 2012**

Abstracts for oral and poster presentations due

**March 15, 2012**

Notification of abstract acceptance sent to authors

**April 12-15, 2012**

ANS Student Conference 2012



## ANS-6 Standards Subcommittee Update

**Charlotta Sanders**

*University of Nevada, Las Vegas*

As the newly appointed ANS-6 Standards Subcommittee chair, I would like to begin by thanking you, the RPSD membership, for the many years of service to the RPSD and in particular to the ANS-6 Subcommittee on Radiation Protection and Shielding Standards. It is my belief that development and maintenance of standards on radiation protection and shielding have taken on a greater importance in the wake of Japan's Fukushima Daiichi reactor incident. We have much work to do to support the industry, and I am very encouraged by the recent outpouring of interest to join our working groups. If there is anyone out there that is still interested in joining the ANS-6 standards work (or have questions), please don't hesitate to contact myself [sander59@unlv.nevada.edu] and/or Ms. Patricia Schroeder, ANS Standards Administrator [pschroeder@ans.org]. Your active participation is vital to the success of the ANS-6 Standards Subcommittee.

Below is a summary of the ANS-6 subcommittee's working groups and the on-going activities:

### **ANSI/ANS-6.4.2-2006, "Specification for Radiation Shielding Materials"**

Received ANSI approval 9/28/2006. The plan is to submit the standard for reaffirmation by the end of 2011.

### **ANSI/ANS-6.1.2, "Neutron and Gamma-Ray Cross Sections for Nuclear Radiation Protection Calculations for Nuclear Power Plants"**

Standard was reaffirmed 2/23/2009. Multiple iterations have since been performed and the working group is close to completing the revision. The plan is to implement final comments to the standard by the end of 2011.

### **ANSI/ANS-6.1.1, "Dose Conversion Coefficients"**

Standard was withdrawn in 2001 for not complying with ANSI's requirement to perform maintenance (through revision or reaffirmation) within 10 years. A reinvigoration of this working group and standard to get re-issued is in the works.

### **ANSI/ANS-6.6.1, "Calculation and Measurement of Direct and Scattered Gamma Radiation from LWR Nuclear Power Plants"**

Standard was reaffirmed 3/5/2007. The plan is to submit the standard for reaffirmation by the end of 2012 with editorial changes and updates to outdated references.

### **ANSI/ANS-6.4.3, "Gamma-Ray Attenuation Coefficients & Buildup Factors for Engineering"**

Standard was withdrawn in 2001 for not complying with ANSI's requirement to perform maintenance (through revision or reaffirmation) within 10 years. A reinvigoration of this working group and standard to get re-issued is in the works. The PINS form is currently in the process of being reviewed and approved.

### **ANSI/ANS-6.3.1, "Program for Testing Radiation Shields in Light Water Reactors (LWR)"**

Standard was reaffirmed 4/20/2007. A revision is anticipated along with the submission of a new PINS form.

## Upcoming Meetings

### 2011 ANS Winter Meeting and Nuclear Technology Expo

October 30-November 3, 2011

Washington, D.C.

Please join us and participate in our technical sessions at the upcoming ANS Winter Meeting:

**Current Topics in Radiation Shielding & Protection - Roundtable**

Monday, October 31, 2:30 p.m. - 4:00 p.m.

**Walk the Talk, Ethics in Professional Engineering - Panel**

Tuesday, November 1, 1:00 p.m. - 4:00 p.m.

**Monte Carlo Dice Seminar - Tutorial**

Wednesday, November 2, 1:00 p.m. - 4:00 p.m.

**VESTA - Tutorial**

Thursday, November 3, 1:00 p.m. - 4:00 p.m.

**Radiation Protection and Shielding General Meeting**

Tuesday, November 1, 8:30 a.m. - 11:30 a.m.

**Computational Resources in Radiation Protection and Shielding**

Wednesday, November 2, 8:30 a.m. - 11:30 a.m.

**SCALE/ORIGEN - Tutorial**

Thursday, November 3, 8:30 a.m. - 11:30 a.m.

### 2012 ANS Annual Meeting

June 24-28, 2012

Chicago, IL

The Call for Papers has been issued and will be open for submission until January 13, 2012. We encourage you to submit abstracts for the RPSD General session to be held during the meeting! Further information and the Call for Papers can be found at [http://www.new.ans.org/meetings/m\\_77](http://www.new.ans.org/meetings/m_77).

### 12th International Conference on Radiation Shielding (ICRS-12)

### 17th Topical Meeting of the Radiation Protection and Shielding Division of ANS (RPSD-2012)

*Organized by the Atomic Energy Society of Japan*

September 2-7, 2012

Nara, Japan

<http://www.icrs12.org>

For any further information, please send inquiries to [office@icrs12.org](mailto:office@icrs12.org).



# RPSD Officers and Committees

## Officers

Chair -	<b>Arzu Alpan</b> <i>Westinghouse Electric Company</i> <a href="mailto:alpanfa@westinghouse.com">alpanfa@westinghouse.com</a>	Vice Chair -	<b>Nolan E. Hertel</b> <i>Georgia Institute of Technology</i> <a href="mailto:nolan.hertel@nre.gatech.edu">nolan.hertel@nre.gatech.edu</a>
Secretary -	<b>Scott W. Mosher</b> <i>Oak Ridge National Laboratory</i>	Treasurer -	<b>Joel M. Risner</b> <i>Oak Ridge National Laboratory</i>

## Executive Committee

2012	<b>Shaheen A. Dewji</b> <i>Georgia Institute of Technology</i> <a href="mailto:shaheen.dewji@gatech.edu">shaheen.dewji@gatech.edu</a>	2014	<b>Steven J. Nathan</b> <a href="mailto:snathan3@comcast.net">snathan3@comcast.net</a>	2012	<b>Wayne D. Newhauser</b> <i>M.D. Anderson Cancer Center</i> <a href="mailto:wnewhauser@mdanderson.org">wnewhauser@mdanderson.org</a>
2014	<b>Douglas E. Peplow</b> <i>Oak Ridge National Laboratory</i> <a href="mailto:peplowde@ornl.gov">peplowde@ornl.gov</a>	2012	<b>Arkady Serikov</b> <i>Karlsruhe Institute of Technology</i> <a href="mailto:arkady.serikov@kit.edu">arkady.serikov@kit.edu</a>	2014	<b>Erik F. Shores</b> <i>Los Alamos National Laboratory</i> <a href="mailto:eshores@lanl.gov">eshores@lanl.gov</a>
2012	<b>Robert C. Singleterry</b> <i>NASA</i> <a href="mailto:robert.c.singleterry@nasa.gov">robert.c.singleterry@nasa.gov</a>	2013	<b>Glenn E. Sjoden</b> <i>Georgia Institute of Technology</i> <a href="mailto:glenn.sjoden@me.gatech.edu">glenn.sjoden@me.gatech.edu</a>	2013	<b>Martin R. Williamson</b> <i>Y-12 National Security Complex</i> <a href="mailto:williamsonmr@y12.doe.gov">williamsonmr@y12.doe.gov</a>

## Standing and Special Committee Chairs

Program -	<b>Eric Burgett</b> <i>Idaho State University</i> <a href="mailto:burgeric@isu.edu">burgeric@isu.edu</a>	Membership -	<b>Janice W. Arwood</b> <i>Oak Ridge National Laboratory</i> <a href="mailto:arwoodjw@ornl.gov">arwoodjw@ornl.gov</a>
Website -	<b>Erik F. Shores</b> <i>Los Alamos National Laboratory</i> <a href="mailto:eshores@lanl.gov">eshores@lanl.gov</a>	Bylaws -	<b>Erik F. Shores</b> <i>Los Alamos National Laboratory</i> <a href="mailto:eshores@lanl.gov">eshores@lanl.gov</a>
Honors & Awards -	<b>John D. Court</b> <i>OSD</i> <a href="mailto:David.Court@osd.smil.mil">David.Court@osd.smil.mil</a>	Scholarship -	<b>John Poston</b> <i>TAMU</i> <a href="mailto:j-poston@tamu.edu">j-poston@tamu.edu</a>
Benchmarks -	<b>Richard S. Amato</b> <i>BAPL, retired</i>	Standards -	<b>Charlotta E. Sanders</b> <i>University of Nevada, Las Vegas</i>

## Liaisons

ANS Board -	<b>Joe F. Colvin</b> <a href="mailto:jfc@nei.org">jfc@nei.org</a>	Staff -	<b>Sharon S. Kerrick</b> <a href="mailto:skerrick@ans.org">skerrick@ans.org</a>
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## Ex-Officio

<b>Charlotta E. Sanders</b> <i>University of Nevada, Las Vegas</i> <a href="mailto:sander59@unlv.nevada.edu">sander59@unlv.nevada.edu</a>	<b>Michaele C. Brady Raap</b> <i>PNNL</i> <a href="mailto:Michaele.BradyRaap@pnnl.gov">Michaele.BradyRaap@pnnl.gov</a>
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## Message from the Editor

The RPSD newsletter is issued twice a year, in spring and fall. RPSD newsletters are available at <http://rpsd.ans.org/news/news.html>. If you have any comments on the RPSD newsletter, or would like to contribute an article for the upcoming newsletter in fall 2011, please e-mail the current editor, Tim Cahill, at [tcahill3@mail.gatech.edu](mailto:tcahill3@mail.gatech.edu).