



Message From the Chair By Anthony J. Baratta

As my term as Chair of NISD comes to a close, I thank you for your support. Thanks to your efforts, we were able to help several students attend ANS meetings, provided financial help to the student conference and were able to maintain our membership as one of the largest ANS Professional Divisions (we account for 15% of the ANS membership). This all was done despite the lull in the industry due to the 2008 financial crisis and the impact of Fukushima and low natural gas prices on the Nuclear Renaissance.

Despite these challenges, the Division remains strong supporting the PSA 2013 topical meeting to be held in Columbia, SC this September as well as planning for PSA 2015. At PSA 2013 there will be a special memorial to the late David Okrent.

David was UCLA professor emeritus of mechanical and aerospace engineering, and the primary founder of both the PSA topical meeting series and the ANS Nuclear Reactor Safety Division (now NISD). I hope you can attend.

We also are looking forward to becoming more involved with our sister societies particularly those in Europe and the UK thanks to our international members. In the near future, we will likely be organizing one or more short courses to help our membership maintain proficiency in a variety of safety related areas, more about that next time.

Lastly, I want to welcome our new officers, Chair John Lee and Vice Chair Ron Knief. And to thank Bob Martin who will continue as Secretary Treasurer, a position he has done a tremendous job in. We also have new EC members as well as some returning members, Marc-Gérard Albert, Tunc Aldemir and Virginia D. Cleary. Welcome to all.

Message From the Vice-Chair By John C. Lee

I am pleased to note that the NISD Best Paper Award was successfully launched at the November 2012 ANS Meeting [details to follow in this Newsletter]. It was my observation, however, that we would have benefited from the participation of a larger segment of the EC and PC membership as judges for the selection of the award-winning papers. I would invite active support and participation by the EC and PC members for the Best Paper Award in the upcoming ANS Meeting in Atlanta. Any comments or suggestions for the selection process itself would also be welcome.

One item for the June EC meeting agenda will be the discussion and approval of an updated NISD Strategic Plan. As indicated in the November 2012 NISD Newsletter, revisions are required primarily to reflect the updated 2012 Strategic Plan of the Society, highlighting four mission components: (1) professional development, (2) sharing information and advancements in technology, (3) engaging the public, and (4) engaging the policy makers. All members of the NISD are invited to review the draft NISD Strategic Plan posted on the Division website and offer comments at the EC meeting on Sunday evening of the Atlanta Meeting.

Program Committee By Amy Hull and Charles Martin

The NISD will sponsor six sessions at the Spring 2013 meeting, as follows:

- NRC 50.54(f) Generic Letter on NTF Recommendation 2.3, Seismic Walkdowns–Panel, Mon. p.m.
- Emerging Issues in Nuclear Facility Safety, Tues. p.m.
- Commercial-Grade Dedication of Real-Time Software–Panel, Wed. a.m.
- Commercial-Grade Dedication of Non-Real-Time Software–Panel, Thurs. a.m.
- Nuclear Installations Safety: General—I, Thurs. a.m.
- Nuclear Installations Safety: General—II, Thurs. p.m.

A selection committee from the Technical Program Committee for the Embedded Topical on Fukushima and Severe Accidents in San Diego recognized four outstanding papers: two for their technical contribution and two for their societal / “big picture” contribution. They are as follows:

“MELCOR Simulations of the Severe Accident at the Fukushima 1F3 Reactor”, J. Cardoni et al.

“Material effect in the nuclear fuel - coolant interaction: Analyses of prototypic melt fragmentation and solidification in the KROTOS facility”, V. Tyrpekl et al.

“The Canary, the Ostrich, and the Black Swan: An Historical Perspective On Our Understanding of BWR Severe Accidents and Their Mitigation”, S. Greene

“Successful cold shutdown of Onagawa: the closest NPS to the 3/11/11 epicenter”, A. Obonai and K. Watanabe.

The committee that selected the papers included J. Buongiorno, M. Corradini, L. Herranz, C. Journeau, C. Martin and A. Tokuhiro.

Honors and Awards By Phillip Ellison and Charles Martin

The Nuclear Installations Safety Division Honors and Awards Committee made awards for three papers presented during the regular sessions at the 2012 American Nuclear Society Winter Meeting in San Diego, CA, November 11-15, 2012. The Outstanding Paper Award was presented for:

“Modeling Fire Induced Electrical Cable Failure in Cable Bundles”, Matthew Bucknor, Richard Denning, and Tunc Aldemir

And 2 Honorable Mention Awards were presented for

“Methodology for Incorporating Dynamic Behavior into Fault Trees using System Dynamics”, M. Denman and A. Ames

“Adaptive Sampling using Support Vector Machines”, D. Mandelli and C. Smith

Nominations/recommendations for the 2014 Tommy Thompson and George C Laurence awards are solicited and should be sent to the honors and awards committee Chair at: phillip.ellison@ge.com

The 2013 Tommy Thompson award will be announced at the winter meeting (November 10-14, 2013, Washington D.C.).



2014 Student Conference

Pennsylvania State University will host the ANS 2014 Student Conference. The conference will be held April 3-6, 2014, with the conference theme "iNuc: Innovations in Nuclear Technology." The conference planning efforts by the Penn State Student Section will be lead by co-chairs Karen Bobkowski, Cathy Perego, and Matt Wargon.

Scheduled NISD Meetings

All NISD members are welcome to attend the following NISD committee meetings at the June 2013 Meeting in Atlanta, GA:

- Executive Committee: Sunday, 7:30 P.M. – 9:30 P.M.
LOCATION: Hanover C
- Program Committee: Sunday, 4:00 P.M. – 6:00 P.M.
LOCATION: Hanover C

The Executive and Program Committees invite NISD members to express their interest in serving on those committees, particularly by participation in one or both of the indicated meetings.

PRA Supporting Software By Curtis Smith

SAPHIRE is a probabilistic risk and reliability assessment software tool. SAPHIRE stands for Systems Analysis Programs for Hands-on Integrated Reliability Evaluations. The software was developed for the U.S. Nuclear Regulatory Commission (NRC) by the Idaho National Laboratory (INL). Development began in the mid-1980s when the NRC began exploring two notions:

1. That Probabilistic Risk Assessment (PRA) information could be displayed and manipulated using the emerging microcomputer technology of the day
2. The advancement of PRA technology required a relatively inexpensive and readily available platform for teaching PRA concepts to students.

Consequently, SAPHIRE is used as a teaching and analysis tool to support PC-based PRA activities. Currently, agencies such as the Nuclear Regulatory Commission, the National Aeronautics and Aerospace Agency, the Department of Energy, and the Department of Defense use version 7 of the SAPHIRE software for many of their risk-informed activities. A "no fee" copy of the SAPHIRE software may be obtained via the Internet at: <https://secureweb.inl.gov/saphire/>.

This information is provided as a service to the NISD members and does not constitute an endorsement or support of the SAPHIRE code by NISD or the ANS.

Student Scholarships Sponsored By NISD

The Saul Levine and Raymond DiSalvo Memorial Scholarships are fully funded. Descriptions of these scholarships can be accessed at the NISD Website (see below for address). Undergraduate students interested in applying for these scholarships can access the Eligibility Requirements and Application Form at <http://www.ans.org/honors/scholarships>.

Executive Committee Election Results

The EC Officers for 2013 – 2014 are:

- Chair – John C. Lee (University of Michigan)
- Vice Chair - Ronald A. Knief (Sandia National Laboratory)
- Secretary/Treasurer – Robert P. Martin (B&W)

The new or reappointed EC members are:

- Tunic Aldemir (Ohio State University)
- Virginia D. Cleary (Bechtel National, Inc.)
- Marc-Gérard Albert (French Institute of Nuclear Safety and Radiation Protection)

NISD Website

The NISD Website is compatible with most access devices (Smartphones, Tablets, Laptops, Desktops). Suggestions for further enhancements are solicited and may be e-mailed to the NISD Webmaster at: KatJon@ida.net.

NISD sponsored Panel Discussion at the annual meetings can be viewed on the Website by clicking on the "Panel Presentations" button.

The NISD Website may be accessed directly at <http://nisd.ans.org> or indirectly at <http://www.ans.org>.



NISD Officers and Committees 2012-2013

Anthony J. Baratta **Chair**
US NRC 301-415-7468
Mail Stop T-3 F23 301-415-5549 FAX
Washington, DC 20555-0001
Email: anthony.baratta@nrc.gov

John C. Lee **Vice-Chair**
University of Michigan 734-764-9379
2355 Bonisteel Blvd. 734-763-4540 FAX
Ann Arbor, MI 48109-2104
Email: jcl@umich.edu

Robert Martin **Secretary/Treasurer**
Babcock and Wilcox Nuclear Energy Group 434-316-7549
109 Ramsey Dr.
Lynchburg VA 24501
Email: rpmartin@babcock.com

Executive Committee:
Tunc Aldemir aldemir.1@osu.edu
Bill Hannaman bill_hannaman@hotmail.com
Amy Hull Amy.Hull@nrc.gov
Ronald A. Knief raknief@sandia.gov
Stanley H. Levinson Stanley.Levinson@areva.com
Charles R. Martin charlesm@dnfsb.gov
Susan Y. Pickering sypicke@sandia.gov
Kevin R. Robb robbkr@ornl.gov
Bonnie J. Shapiro bonnie.shapiro@srs.gov
Richard C. Swinburn richard.swinburn@rolls-royce.com
Alan E. Levin (Ex Officio) Alan.Levin@areva.com
Michaele C. Brady Raap (Ex Officio) michaele.bradyrapp@pnl.gov

Honors and Awards Committee:
Phillip Ellison (Chair) phillip.ellison@ge.com
Joseph Green joseph.green@shawgrp.com
Herbert Massie herbertm@dnfsb.gov
Steve Schultz sps01749@aol.com
Bonnie Shapiro Bonnie.Shapiro@srs.gov
Jan van Erp vanerp@AOL.com

Program Committee:

Amy Hull **Chair**
Email: Amy.Hull@nrc.gov 301-251-7656

Matthew Denman **Vice-Chair**
Email: mrdenma@sandia.gov 505-284-9988

Edward Blandford **Secretary**
Email: edb@unm.edu 415-793-1083

Charles R. Martin **Special Sessions Coordinator**
Email: charlesm@dnfsb.gov 202-694-7132

Dana Powers **Topical Meetings Coordinator**
Email: dapower@sandia.gov 505-845-9839

Robert Andre rdandre@gmail.com
Phillip Ellison phillip.ellison@ge.com
Dennis Henneke dennis.henneke@ge.com
William Horak horak@bnl.gov
N. Prasad Kadambi npkadambi@verizon.net
Kevin O’Kula kevin.okula@wsms.com
Vanice Perin Vanice.Perin@nrc.gov
Martin Sattison martin.sattison@inl.gov
Toju Totev ttotev@hotmail.com

Liaison and Coordination

Donald Hoffman (Board of Directors Liaison)
Bonniifer Ballard bballard@ans.org
Gary E. Wilson (NISD Newsletters and Web Site) KatJon@ida.net