



# AMERICAN NUCLEAR SOCIETY EDUCATION & TRAINING DIVISION

## MESSAGE FROM THE CHAIR

We live in exciting times, particularly in our world of nuclear education and training. As Eric Loewen notes in his article below, nuclear engineering enrollments are up, as are the number of nuclear engineering BS and MS degrees awarded. Under Dick Coe's leadership, the Conference on Nuclear Education and Training (CONTE 07) was a great success, paving the way for further opportunities at NESTet and CONTE 09, also noted below. The ETD funds generated by CONTE 07 now allow us to provide support and assistance to deserving activities such as ANS teacher education workshops, ANS Student National Conferences, and support of ANS Students at National meetings.

And as of this writing the South Texas Project Nuclear Operating Company filed a combined construction permit-operating license (COL) with the U. S. Nuclear Regulatory Commission for approval to build two 1350-MWe advanced boiling water reactors (ABWR). Some say this is the beginning of the nuclear revival in the U.S. If so, the need to educate and train the next generation of nuclear workers - operators, technicians, engineers, maintenance personnel and their supervisors - is here. The combination of the staffing needs for new plants and the realities of an aging workforce may create a "perfect storm" when it comes to nuclear workforce training and education. The good news is that the industry has been preparing the groundwork to address these challenges. And by the way, several of the key leaders in these efforts are on your ETD executive committee.

I direct your attention to the ETD page on the ANS website at <http://ans.etd.org/>. John Wheeler has done a fine job in updating it and it provides a wealth of information about ETD.

On a negative note, I regret to inform you that the ANS National Honors and Awards Committee did not approve our request to make the ETD Training Excellence Awards "ANS National" awards. A disappointment, but we will continue with the awards, and try again at a later date to make these ANS national awards.

All in all, this is a great time to be in the nuclear education and training arena. And if you would like add your talents to the ETD executive committee, contact any of the current officers and let us know - we would be glad to expand our ranks with willing volunteers!

Kent  
ETD Chair

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## 2007 WINTER MEETING: WASHINGTON D.C.

The upcoming 2007 ANS Winter meeting has something for everyone. Please check the final program for changes.

**Saturday 10 November**

0830-1700 ANS Young Professionals Parlor 257  
Workshop

**Sunday 11 November**

0730-0930 NEED Committee Parlor 515  
0930-1030 ETD University Senate Room  
/Industry/Government  
Relations  
1030-1200 ETD Program Senate Room  
1100-1300 Membership Committee Parlor 257  
1200-1300 ETD Nuclear Workforce Senate Room  
Working Group  
1300-1400 Alpha Nu Sigma Senate Room  
1330-1600 ETD Executive / Congressional  
Membership / Honors & B  
Awards

**Monday 12 November**

1130-1300 Professional Women in Parlor 257  
ANS

**ETD Technical Sessions:**

- Mon. p.m. - Recruiting, Retention, and Outreach
- Mon. p.m. - Focus on Communications—I: Panel - Meet the Media
- Tues. a.m. - Student Design Competition
- Tues. p.m. - Focus on Communications—II: Panel - Communicating with Policy Makers
- Tues. p.m. - Innovations in Nuclear Engineering Education, Training, and Distance Learning,
- Wed. p.m. - Training Excellence Awards
- Thurs. p.m. - Focus on Communications—III: Panel - Pronuclear Activism

## MESSAGE FROM THE ETD BOARD LIAISON

There is good news, and bad. Since the 1970s, the Oak Ridge Institute for Science and Education (ORISE) has provided data on enrollments and degrees in science and energy-related fields of study to the DOE and other federal agencies. Their latest report (<http://orise.ornl.gov/sep/pubs.htm>) reveals some favorable trends for nuclear engineering schools:

- Undergraduate nuclear engineering enrollment in 2006 more than doubled the levels reported in 1999 and 2000.
- 346 nuclear engineering BS degrees were awarded in 2006, a 30 percent increase over 2005 to the highest number reported in 10 years.
- The number of master's degrees was the highest since 1996 and reflected an increase for the fourth-consecutive year.

The news for middle-and high-schools is not as good. In his June 2007 report to the ANS Board of Directors, Dr. Coe mentioned the lack of realism in textbooks. Having been a guest speaker in many K-12 classrooms, I agree completely with his assessment. ANS (and ETD) are not alone in recognizing this problem.

The Environmental Literacy Council at the website <http://www.enviroliteracy.org/subcategory.php/1.html>, like our ANS Outreach Department, provides practical teaching resources in a wide variety of projects. Their principal emphasis is on improving the quality of science teaching materials; especially textbooks (for an example you can visit <http://www.enviroliteracy.org/article.php/1367.html>). The ELC is seeking information and technical advice to advance their work. This might be a role the ETD could explore in support of our Strategic Plan Goal B, "Strengthen recognition as a credible source of nuclear science and technology information."

Several nuclear science and technologies textbooks are out of print and many publishers are willing to transfer their publication right to ANS. ETD could work to find good NS&T textbooks and identify them to the Publications Steering Committee. With our ability for "on demand" publication, the ANS could support an NS&T education renaissance (as well as enrich our Society's coffers).

ETD is one of our stronger and more active professional divisions. I am pleased to work with you in advancing the nuclear energy renaissance.

Eric P. Loewen, PhD

### 2007 NATIONAL ANS STUDENT DESIGN COMPETITION

The finalists in the 2007 National ANS Student Design Contest have been selected by a panel of judges from industry and government. The finalists are U. of Florida and M.I.T (undergraduate category), and Penn State and U. of Tennessee (graduate category). Students from these four universities will make oral presentations to a second panel of judges at the November ANS meeting in Washington, DC to determine first and second place in each category.

Please see the Final Program of the November ANS meeting for the time and place of the Student Design Session, which promises to have four excellent presentations of student design projects.

### CONTE 2009

CONTE07 was a great success. Please plan ahead to make CONTE09 even better!

CONTE 09 (Conference on Nuclear Training and Education – 2009) will be held on February 8-11, 2009 at the Hyatt Regency hotel in Jacksonville, FL

### NESTet 2008

**Mark your calendars!** European/American Nuclear Society Nuclear Engineering Science/ Technology and Training (NESTet 08). Will be held on May 5 – 8, 2008, in Budapest, Hungary

This important European Nuclear Society (ENS) conference is dedicated to networking in nuclear education and training across the fields of engineering, science and technology. NESTet 2008 is designed to facilitate an exchange of information, collaboration and the sharing of best practices in nuclear education and training in engineering science and technology.

For more information:

<http://www.euronuclear.org/events/nestet/index.php>

### ANS 2008 ANNUAL MEETING

The Education and Training Division needs your participation. Please plan ahead to support the 2008 Annual meeting by presenting a paper, participating as a panelist, serving on a committee, or getting engaged in some other fashion.

#### Paper submission deadlines for the 2008 ANS Annual Meeting:

1. SUBMISSION OF SUMMARIES: *November 1, 2007–January 11, 2008*
2. AUTHOR NOTIFICATION OF ACCEPTANCE: *By February 26, 2008*
3. REVISED SUMMARIES DUE: *March 11, 2008*

### PROPOSED EXCELSIOR COLLEGE BRANCH OF THE AMERICAN NUCLEAR SOCIETY

We are pleased to announce that the preliminary steps towards the formation of the Excelsior College Student Branch of the American Nuclear Society (ANS) are now underway. The Excelsior College Branch of ANS will function as a Student Chapter of ANS, and its main objectives will be consistent with those of the Society. With Nuclear Engineering and Nuclear Engineering Technology departments experiencing a resurgence in enrollments today, the objectives of the Student Branch are to promote the advancement of science and engineering relating to nuclear and allied sciences and arts.

The Student Chapter will be managed by a group of students interested in contributing to the development of nuclear science and technology at the Excelsior College through activities in which student members and faculty may participate. One focus of the Chapter will be to increase public awareness of the many benefits of nuclear technology and its place in our future. We will also promote attendance at national conferences to bring together students from around the country to present information on the latest technology in the field and foster interaction.

If you are a current nuclear technology or technology student, or a current student interested in learning about new technology and are interested in becoming a member of ANS and/or joining the newly forming ranks of this chapter, please contact [jleclair@Excelsior.edu](mailto:jleclair@Excelsior.edu).

### TOUR OF FRENCH NUCLEAR FACILITIES

The French section of the ANS (SFANS) is sponsoring a one week tour of French nuclear facilities in July of 2008. Here are the details:

#### Duration and Dates:

Will be a ONE WEEK tour, on July 2008: either the first week (Monday 7 to Saturday 12) or the third week (Monday 21 to Saturday 26)

#### Preliminary Program:

After a half day introduction on the French nuclear program (on Monday morning in Paris), the tour will include the main following facilities:

- Melox: MOX fuel fabrication facility
- Atalante: main “hot laboratory” for research on advanced fuel cycles
- Phenix: Fast Neutron Reactor (250 MWe)
- Châlon: Facility for fabrication of large components for NPPs (SG, ...)
- Bure: Underground Research laboratory for deep geological disposal of nuclear waste
- La Hague: Reprocessing plant

A “guest program” will be organized for accompanying persons.

Financial Conditions (based on a participation of 12 Professors):

SFANS will support a part of travel expenses in France (including guest program): about 40 % for the US professors and about 10 % for the accompanying persons. From the preliminary budget estimation (including all expenses: hotels, meals, travels in France, etc), this would lead to the following contribution from the participants (could be slightly revised according to more accurate estimates to come):

- 750 € (Euros) for Professors
- 950 € (Euros) for accompanying persons

Contact: Dominique GRENECHE :  
 Dominique.greeneche@areva.com,  
 Tel: 33 – 1 – 34 96 66 15

### ETD EXECUTIVE COMMITTEE

Would you like to get involved? Have a question? Please contact any executive committee officers:

Chair	Kent W. Hamlin <a href="mailto:hamlinkw@inpo.org">hamlinkw@inpo.org</a>
1st Vice Chair / Chair-Elect	J. Wesley Hines <a href="mailto:Jhines2@utk.edu">Jhines2@utk.edu</a>
2nd Vice Chair	Edward P. Naessens, Jr. <a href="mailto:Edward.naessens@usma.edu">Edward.naessens@usma.edu</a>
Treasurer	Ann D. Winters <a href="mailto:wintersad@inpo.org">wintersad@inpo.org</a>
Secretary	John K Wheeler <a href="mailto:jwheele@entergy.com">jwheele@entergy.com</a>

ETD Executive Committee Members (term expiration):

Carol L. Berrigan 2008  
 Peter F. Caracappa 2008  
 Arthur H. Friedman 2010  
 Marc A. Garland 2008  
 Kent W. Hamlin 2008  
 J. Wesley Hines 2009  
 Richard Holman 2009  
 Jane A. LeClair 2009  
 Edward P. Naessens, Jr. 2010  
 W. David Pointer 2010  
 Michael A. Robinson 2010  
 Kenneth M. Roush 2008  
 John J. Stankiewicz 2009  
 John K. Wheeler 2008  
 Ann D. Winters 2008

NOTE: If you are interested in serving on the ANS ETD Executive Committee or as an ETD officer, contact any of the current officers. While positions are normally filled on an annual basis, there are often opportunities to fill unanticipated vacancies.

## ETD POINTS OF CONTACT

Staff Liaison	Sharon S. Kerrick <a href="mailto:skerrick@ans.org">skerrick@ans.org</a>
Board Liaison	Eric P. Loewen <a href="mailto:eric.loewen@ge.com">eric.loewen@ge.com</a>
Finance Committee	Ann D. Winters <a href="mailto:wintersad@inpo.org">wintersad@inpo.org</a>
Program Committee	Peter F. Caracappa <a href="mailto:peter@caracappa.org">peter@caracappa.org</a>
Univ/Industry/Gov Relations Committee	H. Lee Dodds <a href="mailto:hdj@tennessee.edu">hdj@tennessee.edu</a>
Honors & Awards Committee	Kent W. Hamlin <a href="mailto:hamlinkw@inpo.org">hamlinkw@inpo.org</a>
Nominating Committee	Richard P. Coe <a href="mailto:rpcoe@att.net">rpcoe@att.net</a>
Nuclear Workforce Working Group	Ann D. Winters <a href="mailto:wintersad@inpo.org">wintersad@inpo.org</a>
CONTE 2009 Technical Program Committee	Kent W. Hamlin <a href="mailto:hamlinkw@inpo.org">hamlinkw@inpo.org</a>
	Brian Hajek <a href="mailto:hdj@utk.edu">hdj@utk.edu</a>
ETD Webmaster	John Wheeler <a href="mailto:jwheele@energy.com">jwheele@energy.com</a>
Ex Officio	Donald Hoffman <a href="mailto:donaldh@excelservices.com">donaldh@excelservices.com</a>
	Richard P. Coe <a href="mailto:rpcoe@att.net">rpcoe@att.net</a>

## ON-LINE NUCLEAR EDUCATION &amp; ADVOCACY RESOURCES

There is a growing Internet presence of information and resources related to nuclear education, careers, and public outreach. Here is a list of some resources you may like to check out and share with colleagues, friends, and family:

1. Web Sites:
  - a. Get Into Nuclear Youth Outreach  
<http://getintoenergy.com>
  - b. U.S. Department of Energy  
<http://www.nuclear.gov>
  - c. Center for Energy Workforce Development  
<http://www.cewd.org>
2. Blogs:
  - a. NEI Nuclear Notes  
<http://neinuclearnotes.blogspot.com/>
  - b. Atomic Insights  
<http://atomicinsights.blogspot.com/>
  - c. The Energy Blog  
<http://thefraserdomain.typepad.com/energy/>
3. Podcasts:
  - a. The Atomic Show  
<http://atomic.thepodcastnetwork.com/>
  - b. This Week in Nuclear  
<http://thisweekinnuclear.com>