



October 2004

The ANS Globe

...e-news from the ANS International
Committee

From the editors

The ANS Globe is the Bulletin of the American Nuclear Society's International Committee. After a lapse of a few years, The Globe has re-emerged, and this is the 2nd issue this year. We continue to hope that The Globe will be a useful and successful means of disseminating news of interest to International Committee members and to others. Please send us letters, articles, and/or comments for consideration towards the next issue.

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From the Chair

Dear friends,

The current rise of oil prices comes as a timely reminder of the need for the industrialized countries to strengthen their efforts to develop balanced energy strategies based on diversified sustainable fuel sources. The US, for its part, has begun to implement its National Energy Policy, and, internationally, the G8 summit last year has paved the way to an Action Plan, accelerating the research, development and diffusion of energy technologies. Clearly, international partnership towards such broad aims also includes the deployment of sustainable advanced nuclear systems. The US AFCI and GIF show the way ahead. The ANS International Committee obviously has a substantial contribution to make to meet these overall objectives, and we must spare no effort in this respect.



To better involve the ANS international membership and keep us updated on global trends, I am inviting foreign speakers at our Committee Meetings, thus launching an International Mini-Forum (mentioned hereafter). In this issue as well, a new heading on Sister Societies includes news sent by our members from other nuclear societies willing to strengthen their links with the ANS. In addition, our Committee is ready to enhance its cooperation with the Professional Divisions: as a starting point, we are cosponsoring with the Education and Training Division a Panel Session on "International Collaboration in Nuclear training and Education", with the participation of foreign speakers and international associations at the incoming Winter Meeting, on line *Towards a Progressive Integrated Nuclear Community*

News from Sister Societies

- Congratulations to the Sociedad Nuclear Española (SNE) and its President Francisco Martínez Córcoles as the Sociedad celebrates its 30th anniversary in 2004!
- President Bertrand Barré of the European Nuclear Society (ENS) sent a status report for presentation at the ANS international Committee meeting of June 15th 2004. Rebuilding of the ENS is on-going, with headquarters having been relocated from Bern to Brussels. The ENS has a new website (www.Euronuclear.org), and a new electronic Bulletin, the “ENS.News”. The ENS has decided to organize 2 different events in alternating years: the European Nuclear Assembly in even years (the first in Brussels in 2004 November), and ENC in odd years (the first in Versailles in 2005 December) – see details of both in the list of Conferences below.
- ANS International Committee member Kaye P. Hart submitted a report during the committee meeting of June 15th 2004, on behalf of the Secretary and Past President of the Australian Nuclear Association (ANA), Dr. Clarence J. Hardy. The ANA held its 5th National Conference in Canberra, 2003 November 5-6. The Conference included sessions on the Prospects for Nuclear Power and the Hydrogen Economy.
- Dr. Somporn Chongkum, of the Office of Atomic Energy for Peace, became the new President of the Nuclear Society of Thailand on January 4, 2004, for a two-year term, 2004-2005. The new Executive Committee of the Nuclear Society of Thailand, consisting of 25 Members and 7 Advisors, came into office at the same time for the same 2-year term.
- Dr. Yukio Sudo, of the Japan Atomic Energy Research Institute, is the Steering Committee Chair of the ANS Japan Section for the term April 2004 to March 2005.
- Dr. William Schneider, of Babcock & Wilcox Canada, took office as the new President of the Canadian Nuclear Society for a one-year term, June 2004 to June 2005.
- Dr. Zieli Dutra Thome (Eletronuclear) is the 2004/2005 Chairman of the Latin American Section of the ANS.
- ANS International Committee Member Dr. Juan-Luis François is currently serving as the President of the Sociedad Nuclear Mexicana (Mexican Nuclear Society). Professor François was elected for a two-year term as SNM President - from January 2004 to December 2005. In addition, Professor François was recently elected as a member of the ANS Reactor Physics Division’s Executive Committee, where he will serve until June 2007.
- Dr. Masao Takuma (Japan Atomic Industrial Forum) assumed the duties of the Presidency of the Atomic Energy Society of Japan (AESJ) on June 22, 2004. Dr. Takuma will serve a one-year term as the President of AESJ.

- The European Nuclear Society wishes to inform ANS International Committee members of the recent launch of “European Nuclear Features”, a new addendum which will be published periodically with the magazines Revue Générale Nucléaire, Nuclear España, and Atomwirtschaft-Atomtechnik. “European Nuclear Features” will be produced alternately by SFEN, SNE and KTG. See www.euronuclear.org.
- Professor Zeev Alfassi, President of the Israeli Society for Nuclear Sciences and Chairman of the Department of Nuclear Engineering, Ben Gurion University, sends the following update:

The Israeli nuclear societies are an association of four different societies: The Israeli Society for Nuclear Sciences (better known to members of the ANS International Committee as the Israel Nuclear Society), the Israeli Society of Radiation Protection, the Israeli Society of Medical Physics, and the Israeli Society of Nuclear Medicine. Each of the societies organizes a separate meeting once a year. Every other year, there is a two-day joint scientific meeting of the four societies, The last one took place in February 2004, chaired by Prof. Alfassi and featuring a broad spectrum of nuclear applications.



Highlights from the 2004 June Pittsburgh Meeting

- All international representatives attending the Pittsburgh meeting joined with the ANS in celebration of the 50th Anniversary of the ANS. On the Sunday evening, Conference attendees were treated to an exciting and inspirational Banquet, in which a large number of past ANS Presidents gave their recollection on the history of the ANS.
- At the Pittsburgh meeting, Sociedad Nuclear Española (SNE) Vice President Teresa Domínguez Bautista finalized the renewal of the SNE/ANS Agreement for Cooperation.
- Dr. H. Peter Planchon, ANS Board and International Committee member, provided a report on his 2004 June visit to Kazakhstan. During this visit, Dr. Planchon was presented with a document congratulating the ANS on its 50th anniversary. The document, signed by Dr. Vladimir Shkolnik, Kazakhstan Minister of Energy and Mineral Resources and President of the Nuclear Society of Kazakhstan. A commemorative plate was also presented to Dr. Planchon. The document and plate were proudly put on display at ANS Headquarters.

Launching a new International Mini-Forum

To better involve the ANS international membership, Chair France Brès-Tutino had invited four speakers to this Mini-Forum, on the agenda of the International Committee Meeting held in Pittsburgh.



Zdenek Kriz, Board Member of the Czech Nuclear Society, gave a very interesting presentation on “The Nuclear Power Program in the Czech Republic”. Following an historical overview of his country, which has a population of 10.3 million, he underlined its new profile as a Member State of the European Union since 2004. Regarding energy resources, the Czech Republic has practically no oil or gas,

and very limited hydroelectric resources (5%). Poor-quality brown coal provides 60% of the energy. **Nuclear energy, at 30-40%, is thus essential for the Czech Republic.** It has 6 power reactors: 2 VVER-1000 units at Temelin and 4 VVER-400 units at Dukovany.

- o The Dukovany reactors, commissioned between 1984 and 1987, are operating at full power and are being prepared for the 2nd Periodic Safety Review (held at 20 years of life). The Temelin units came on line in June 2002 and April 2003, and are running at full power. Nuclear power generates 26 TWh of electricity annually, which represents about 31% of the total electricity production.
- o Mr. Kriz also talked about the National Research Institute Rez, which was established in 1955 in the framework of the Czech Academy of Science. It is the leading R&D organization in the Czech Republic, with a staff of 850, two research reactors and hot cells as well. Its mission is, among other things, to carry out research and provide services to the country’s nuclear power plants, ensure the application of radiation to industry and medicine, perform research on the fuel cycle and on waste disposal, and educate and train engineers and scientists. The Czech research program focuses on safety for existing nuclear power plants, on the development of a deep geological repository, and on participation in the development of Generation IV reactors.
- o Mr. Kriz also described the Czech Nuclear Society, which was founded in 1992, and which counts 200 individual and 30 company members. It is a member of the European Nuclear Society, and has collaboration agreements with the ANS and other societies. Following the 2004 WIN GLOBAL International Meeting hosted in Japan last year, the Czech Nuclear Society invited the Women in Nuclear Association to hold its 13th International Conference WIN GLOBAL near Prague, on 4-8 April 2005.



• The second speaker, Buzz Savage, Program Director of the DOE’s Advanced Fuel Cycle Initiative, gave a presentation on “The Department of Energy’s Major International Research Programs in Nuclear Energy”.

- o He described the Generation IV Initiative, established by the DOE in 2000 and designed to lead the development of Gen IV reactor systems for commercial deployment after 2010 and before 2030. R&D efforts in the Gen IV Initiative are done collaboratively with nine other countries and the European Union. This Generation IV International Forum has selected six Gen IV systems for development: the Gas-Cooled Fast Reactor (GFR), the Lead-Cooled Fast Reactor (LFR), the Sodium-Cooled Fast Reactor (SFR), the Molten Salt Reactor (MSR), the Supercritical-Water-Cooled Reactor (SCWR), and the Very-High-Temperature Reactor (VHTR).
- o Mr. Savage described the Advanced Fuel-Cycle Initiative (AFCI), whose objective is the development of advanced proliferation-resistant fuel-cycle technologies.

Major research areas are those of spent-fuel treatment, advanced fuels, and transmutation technologies.

- o Mr. Savage also described the mechanisms for international collaboration, including the International Nuclear Energy Research Initiative (INERI), in the framework of which bilateral agreements were or will be signed with several countries. The AFCI is also active in OECD/NEA activities, in particular in the Working Group on Partitioning and Transmutation.

- The third speaker, Dr. Régis Babinet, Counselor on Nuclear Energy at the French Embassy in Washington, D.C., gave an interesting “Update on the Energy Policy in France: Context and Recent Events”.
 - o Total gross electricity production in France in 2002 was 533 TWh. Of this, nuclear power contributed 416 TWh (78%), while hydro and fossil plants contributed 65 TWh (12%) and 53 TWh (10%) respectively. Without nuclear energy, France would have only ~15% energy independence. French exports of electricity in 2002 amounted to 81 TWh.
 - o As a result of the high usage of nuclear power, France has a CO₂ emission of only ~1.8 metric ton of carbon equivalent per capita, compared to ~2.9 in Germany, ~3 in Denmark, ~4.3 in Canada and ~5.5 in the USA.
 - o French energy policy has as an objective the development of renewable energy, with a target reaching 21% of electricity production. However, the policy recognizes that the nuclear option is to remain open for the long term, and that nuclear power will remain a major component of electricity generation. After a slow decline over the last few years, French public perception of nuclear power’s advantages has improved significantly in 2003, for about 52% of the population.
 - o An energy-policy debate took place in France in 2003, with meetings over a 2-month period throughout France, on issues such as Security of Supply, Economic Issues, Waste, Safety, Greenhouse Gases and Other Environmental impacts. An energy bill was introduced in the French Parliament in 2004, which was approved by the Chambre des Députés in June 2004 and then moved to the Senate for approval. The energy bill indicates government support for the construction of a European PWR (EPR) in France.

- The fourth speaker, Dr. W. David Pointer, Communications Chair for the North American - Young Generation in Nuclear (NA-YGN) gave a report on the International Youth Nuclear Congress 2004 (IYNC-2004), which was held in Toronto, Ontario, Canada, 9-13 May 2004 . IYNC-2004, whose theme was “A World of Innovations”, was co-hosted by the NA-YGN and by the Canadian Nuclear Society. This very successful event attracted 263 participants, from 35 countries (40 from the USA), presenting over 180 contributed and 20 invited Conference papers. Proposals were presented at IYNC-2004 for hosting IYNC-2006. The winning bid was from Scandinavia: IYNC-2006 will include a 3-day session in Stockholm, followed by a 1-day visit of the Olkiluoto nuclear site in Finland.



President Tulenko's visit to France



The French Section invited ANS President, Professor James Tulenko, to its General Assembly held on 29 September at the Club “France-Amériques” in Paris. On this occasion, he gave a presentation on “Energy and Environment” to a large audience including senior executives from research, industry and international agencies, as well as young nuclear engineers.

During his visit to France, Professor Tulenko had several meetings, in particular at AREVA with Chair Anne Lauvergeon, at CEA with Chair Alain Bugat and High Commissioner Bernard Bigot, at EDF with Bruno Lescoeur, Executive Vice President, and at OECD/NEA with Director General, Luis Echavarri. In addition to these meetings, technical tours were scheduled to CEA/Marcoule Research Center with the Phenix Reactor and the Atalante Facility for R&D on the back end of the fuel cycle, and to the Melox Plant for MOX fuel fabrication.

The photo shows President Tulenko pointing to the ANS plaque declaring Phenix as a Nuclear Historic Landmark. (The plaque was awarded in 1998.) From left to right: Joël Guidez, Head of Phenix Reactor, President Tulenko, France Brès-Tutino, International Coordinator, CEA, and Laurent Martin, International Relations, Phenix Reactor.



International Electronic Links of Interest

The following website may be of interest to members of the ANS International Committee: Website for Radiochemistry in Europe Newsletters and Working Party on Nuclear and Radiochemistry of FECS (Federation of European Chemical Societies) <http://www.chemsoc.org/networks/enc/fecs/fecsradiochemistry.htm>.

The ANS Grassroots Initiative: Making Nuclear Knowledge Relevant to Diverse Audiences

By Laura Hermann, Communication Specialist, Outreach Department, ANS

Note from the editors: This report is for your information. It is an example of the kind of public-education and communication programs currently being delivered by the ANS. You are most welcome to e-mail us other examples (addresses on page 1).

The ANS Grassroots Initiative encourages ANS members to identify themselves as neighbours, voters, and community members, too. The relationships the Society's members cultivate with individuals outside the nuclear industry ensure that nuclear issues are understood and practical decisions are made.

The Grassroots Initiative, activated by Past President Larry Foulke and now carried out by President Jim Tulenko, represents a tradition of ANS engagement in advocacy

activities. Individual members, Local Sections, Professional Divisions, and Student Sections have all rolled up their sleeves to educate on nuclear issues. ANS works nationally to coordinate their varied efforts. The ANS Outreach department provides materials and support to nuclear education efforts by members, in addition to managing ongoing Teacher Workshops, the ANS Speakers Bureau and the educational website: www.aboutnuclear.org. To learn more, visit www.ans.org/pi

Awards

Local Section Meritorious Awards to the French Section

The French Section of the American Nuclear Society was awarded the 2004 Local Section Meritorious Awards for both the International Section Meetings & Programs and the Section Management categories. The Section has a membership of nearly 250 experts from research and industry. Attached is a photo of President Tulenko, presenting the two awards in Paris to the French Section Board members and to Chair Bernard Roche, on the right.



Mark your calendar

Some Upcoming International Conferences on Nuclear Topics

(Please let us know your upcoming conferences for inclusion in this space)

2004

- 12-15 October: Sixth International Conference on Simulation Methods in Nuclear Engineering, Montréal, Québec, Canada (organized by Canadian Nuclear Society) – <http://www.cns-snc.ca>.
- 19-22 October: VVER-2004 Experience and Perspectives, International Topical Meeting, Prague, Czech Republic (organized by Czech Nuclear Society) – <http://www.teris.cz>
- 14-18 November: ANS Winter Meeting and Nuclear Technology Expo, with two Embedded Topical meetings: BE 2004/Best Estimate and Operating Nuclear Facility Safety, Washington, DC, USA (organized by ANS) – <http://www.ans.org>
- 24-26 November: International Forum on Heat Transfer, Kyoto Research Park, Kyoto, Japan – <http://www.ifht2004.energy.osakafu-u.ac.jp>
- 25-26 November: European Nuclear Assembly 2004 – Nuclear Energy: An Essential Option for Europe, Brussels, Belgium – <http://www.foratom.be>

2005

- 13-16 February: PIME International Conference for Professional Nuclear Communicators – Paris, France – www.euronuclear.org
- 15-18 March: Nuclear and Radiochemistry Symposium -NUCAR 2005, Amritsar, India, <http://www.barc.ernet.in/webpages/symposium/nucar05> and www.iancas.org
- 4-8 April: WIN GLOBAL International Meeting, Cesky Krumlov near Prague, Czech Republic (organized by the Czech Nuclear Society) – <http://www.win-global.org>
- 10-13 April: RRFM – 9th International Topical Meeting on Research Reactor Fuel Management – Budapest, Hungary – www.euronuclear.org
- 17-21 April: Monte Carlo 2005, Chattanooga, Tennessee, USA (organized by ANS) - meetingsandconferences.com/MonteCarlo2005
- 17-22 April: International Conference NAMLS-8, 8th Nuclear Analytical Methods in the Life Sciences, Rio de Janeiro, Brazil (organized by CENA and SBM) – <http://www.cena.usp.br/namls8>
- 25-29 April: 5ICI - 5th International Isotopes Conference, Brussels, Belgium – <http://www.jrc.nl/5ici>
- 8-11 May: Waste Management, Decommissioning and Environmental Restoration for Canada's Nuclear Activities, Ottawa, Ontario, Canada (organized by Canadian Nuclear Society) – <http://www.cnc-snc.ca>
- 15-19 May: 2005 International Congress on Advances in Nuclear Power Plants (ICAPP 2005), Seoul, Korea (organized by Korean Nuclear Society) – <http://www.icapp2005.org>
- 16-20 May: ICONE-13 – 13th International Conference on Nuclear Engineering, Beijing, China (organized by the Chinese Nuclear Society) – <http://www.ns.org.cn/icone2005>
- 22-29 May: 1st International Nuclear Chemistry Congress, 1-INCC, Kusadasi, Turkey (organized by International Nuclear Chemistry Society, INCS)
- 5-9 June: ANS Annual meeting, San Diego, USA
- 4-9 September: IFSA 2005 – Fourth International Conference on Inertial Fusion Sciences and Applications, Biarritz, France - <http://www.celia.u-bordeaux1.fr/ifsa05/>
- 5-8 September: 4th World Congress in Industrial Process Tomography, Aizu-Wakamatsu City, Fukushima, Japan – <http://www.vcipt.org.uk/wcipt4>

- 11-15 September: PSA'05, Topical Meeting on Probabilistic Safety Analysis, San Francisco, USA
- 12-15 September: M&C 2005- International Topical meeting on Mathematics & Computation, Supercomputing, Reactor Physics, Nuclear and Biological Applications, Popes' Palace, Avignon, France (organized by the French Section of the ANS) - <http://mcAvignon2005.cea.fr>
- 2-6 October: NURETH 11, 11th International Topical Meeting on Nuclear Reactors Thermal-Hydraulics, Popes' Palace, Avignon, France (organized by the French Section of the American Nuclear Society)– <http://nureth11.com>
- 9-13 October: GLOBAL 2005, Tsukuba International Congress Center, Ibaraki, Japan – <http://typhoon.tokai.jaeri.go.jp/global2005>
- 13-17 November: ANS Winter Meeting, Washington DC, USA
- 20-22 November: 7th CNS International Conference on CANDU Maintenance, Toronto, Ontario, Canada (organized by Canadian Nuclear Society)
- 11-14 December: ENC 2005, European Nuclear Congress, an ANS/ENS event, Versailles, France (organized by the European Nuclear Society) - <http://www.sfen.fr/enc2005>

2006

- 4-8 June: ANS Annual meeting, Reno, Nevada, USA
- 10-14 September: ANS Topical Meeting Physics of Reactors (PHYSOR-2006), Vancouver, BC, Canada (organized by Canadian Nuclear Society)
- 15-20 October: 15th Pacific Basin Nuclear Conference (15PBNC), Sydney, Australia
- 12-16 November: ANS Winter Meeting, Albuquerque, New Mexico, USA

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