

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. It was recently resurrected after a long hiatus. This is the 4th recent issue. The ANS Globe has as its mandate the dissemination of news of international interest to International Committee members and to others. Please send us letters, articles, and/or comments for consideration towards the next issue.

Ben Rouben roubenb@alum.mit.edu



Mauro L. Bonardi mauro.bonardi@mi.infn.it



From the Chair



Dear friends,

Where do we go from here?

Since the publication of the third issue of the ANS Globe in April, several major events have occurred in the nuclear arena, both at the US level and worldwide, which come as a confirmation of the momentum of the "nuclear energy revival". Let me mention, among

others, the adoption of the Energy Bill in the USA, the setting-up of the NuStart consortium Unistar, and the connection or re-connection to the grid of a number of nuclear power units in Canada, Japan, India and others.

Another marking sign that times are now changing is the renewed interest witnessed in the public and political circles in many countries for new energy/environment approaches away from fossil fuels, opening new avenues to less intrusive and more sustainable technologies, opening new avenues to a solid nuclear base in many countries.

Against this evolving context, the ANS has started an updating process of its Strategic Plan, with, as one of its objectives, to take into account more effectively the renewed interest in nuclear power, particularly through a tightening and extension of its ties with

international actors in this field. Thus, strategic meetings have been held in June and September and some recommendations have been discussed, which emphasize global interactions, greater involvement of international members, and a global positioning of the ANS towards increased contacts with rising "nuclear nations".

The broad emphasis placed by our Society on this approach evidently calls for an active contribution of the International Committee, which appears as a unique tool to pursue efforts towards more interaction with existing and potential new partners abroad.

News from Sister Societies

- Mr. Vuong Huu Tan, Vice President of the Viet Nam Atomic Energy Society (VAES), reports that the first Congress of the VAES was held on April 9, 2005, in Hanoi, Vietnam. It was a very successful Congress, with 400 participants from all over the country. During this Congress, the VAES elected an 11-member Executive Committee, including as its first President H.E. Prof. Hoang Van Phong, Minister of Science and Technology, and Mr. Vuong Huu Tan as Vice-President and Secretary General.
- The following are news from the "Nuclear Australia" newsletter of the <u>Australian Nuclear Association (ANA)</u>, 2005 June-July issue. The ANA's biennial national conference will be held in Sydney on November 10, 2005. The theme of the conference will be "The Facts on Nuclear Science, Uranium and Nuclear Power". One of the major issues will be Nuclear Power Back on the Agenda. The ANA also has a program of meetings in the next few months:
 - o 2005 September 28, <u>Dr. Don Higson</u> will speak on "The Bell Should Have Tolled for the LNT"
 - o 2005 October 20, <u>Dr. Brian Sowerby</u> will speak on "Fast Neutron Radiography Scanner for Detection of Contraband in Air Cargo Containers"
 - o 2005 December 8, the ANA Annual Dinner and Awards will be held.
- The Latin American Section of the ANS held its Symposium, "Maintaining the Nuclear Option in Latin America", in Rio de Janeiro, Brazil, from June 13 to 16, 2005. The President of the Latin American Section, Zieli Dutra, spoke in favor of expanding Brazilian nuclear power. Speaking at the opening ceremonies of the Symposium, Mr. Dutra declared that Brazil should take advantage of its ability to manufacture and enrich uranium, something that puts it in a better position than many other countries. He also pointed out that nuclear energy has many uses "It can generate electricity, It has important uses in medicine. It can also substitute for natural gas imported from Bolivia to run thermoelectric power plants".

ANS President <u>Jim Reinsch</u> participated in the LAS/NAS Symposium in Rio de Janeiro, and delivered an invited talk on "The Nuclear Renaissance: A Resurgence of Nuclear Energy". The accompanying photos are from the LAS/NAS Symposium.



Panel of the opening session of the LAS/NAS Symposium in Rio de Janeiro. From left to right:

Wagner Victer, Rio de Janeiro State Secretary for Energy;

Jim Reinsch, ANS President;

Zieli Dutra Thome Filho, LAS/ANS Chair;

Odair Dias Gonçalves, Brazilian Nuclear Energy Commission President;

Paulo Figueiredo, ELETRONUCLEAR National Nuclear Utility President.

ANS President Jim
Reinsch delivering his talk
on "The Nuclear
Renaissance: A
Resurgence of Nuclear
Energy"



• The ANS French Section: Vice President MacFarlane's visit to France

The French Section invited ANS Vice President, President Elect <u>Harold MacFarlane</u> to its General Assembly held on 3 October at the Club "France-Amériques" in Paris. On this occasion, he gave a presentation on "A snapshot of the Evolving US Nuclear Industry Revival" to a large audience including senior executives from research, industry and international agencies, as well as young nuclear engineers. During his visit, Vice President <u>MacFarlane</u> had several meetings, in particular with the French Section Board, at CEA with the High Commissioner, <u>Bernard Bigot</u> and the Nuclear Energy Director, <u>Philippe Pradel</u> as well as at EDF and at the OECD/NEA. In addition to these meetings, technical tours were scheduled: one day to AREVA/Cogema La Hague Plant and another to CEA/Marcoule Research Center with the Phénix 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 website of the French Section is http://local.ans.org/france.



<u>Vice President Mac Farlane</u> with the new French Section Board in Paris. Left to right: <u>Jean-Paul Chabard</u> (Treasurer), <u>Jacques de la Ferté, Bernard Roche</u> (Past Chair), <u>France Brès-Tutino, Dominique Grenèche, Harold MacFarlane, Alain Kavenoky, Frank Carré</u> (French Section Chair), <u>Rosine Couchoud</u> (Vice Chair) and <u>François Wald</u>.

The French Section's New Board:

Chair: Franck Carré (CEA)

Vice Chair: Rosine Couchoud (AREVA/Cogema)

Secretary General:

<u>Jean-Claude Yazidjian (Framatome-ANP)</u> Treasurer: Jean-Paul Chabard (EDF)

Photos of Frank Carré and of Rosine Couchoud





Sixth Technical Tour of French Nuclear Facilities for US Nuclear Professors

Since 1996, the French Section has set up for US nuclear-engineering professors a one-week technical tour of French nuclear facilities. Six tours have already been organized, in collaboration with the Education and Training Division. Up to now, over seventy US professors from many different universities have had a broad overview of the French nuclear program and achievements, as well as a very concrete approach, thanks to several technical visits. The sixth tour took place this, summer from 17 to 23 July 2005. It included twelve professors from six different universities (Cincinnati, Georgia, Michigan, Oregon, Tennessee and Wisconsin), Régis Babinet, Counsellor for Nuclear Energy at the French Embassy in Washington, D.C., and Dominique Grenèche, from AREVA/Cogema, who was the major coordinator of this project. Focused this year on the back end of the fuel cycle, this tour started with a one-day workshop in Paris with several relevant presentations by AREVA, CEA and EDF representatives. The technical visits included for instance: AREVA/Cogema La Hague plant, Framatome-ANP vendor facility, CEA research center, Melox plant for MOX fuel fabrication, and waste-management facilities.



The French Tour - From left to right: <u>Jiaang Wu, T. Allen, R. Babinet, S. Glover, J. Lee, B. Martin, D. Grenèche, D. Lynch, the French guide at Framatome, N. Hertel, G. Was, Qiao Wu, M. Grosbeck, I. Maldonado, and J. Endicot</u>

• The Secretary General of the <u>Sociedad Nuclear Española (SNE)</u> sent a message of congratulations to the ANS Globe and reported that the renewal of the co-operation agreement between the ANS and the SNE was signed in October 2004, taking advantage of the presence of the new SNE president, <u>Maria Teresa Domínguez</u>, at the ANS's 50th-anniversary celebration. The SNE website is www.sne.es and the e-mail address is postmaster@sne.es.

The SNE Board is organized as follows:
President: Maria Teresa Dominguez

Vice-President : <u>Luis Yagüe</u>

Treasurer: Mariano <u>Rodriguez Aycart</u> Secretary General: <u>Alfonso de la Torre</u>

The ANS Globe has also received from Ms. Montserrat Casero, of the Nuclear Directorate of the Spanish Electricity Industry Association (UNESA), the following report on nuclear activities and coming events in Spain:

Mr. <u>Carlos de Villota</u>, Nuclear Director of UNESA, reports that, following the summer holidays, the Spanish NPPs started the new "school year" with a good piece of news: the connection of Vandellos II NPP to the grid last September 3rd, after a 5.5-month outage. During this shutdown, in addition to the actions related to the Essential Service Water System and the usual work in an outage, the plant carried out a number of modernization and improvement investments, such as the substitution of the Main Steam Isolation Valves.

The nine nuclear units in operation in Spain, which sum a gross power of 7,878 MW, produced 63,675 GWh in 2004 - almost a quarter of the total electricity production of the country- with a capability factor of 92.7%. It is well known that the voices against nuclear energy in Spain include many from the political party currently in the government. However, considering the rate at which the Spanish electricity demand is growing in the last several years (47.5% in the period 1996-2004), as well as the forecasts on the expected oil and gas prices and the commitments from the Kyoto Protocol, it is difficult to question the fundamental role of the Spanish NPPs in assuring a reliable and competitive electricity production. For those interested in updated information on the performance of the Spanish NPPs, there is a periodic UNESA publication, whose latest issue, "Spanish Nuclear Power Plants in 2004", was recently issued and is available on UNESA's website, www.unesa.es.

In Spain, since last April 1st, the money to finance the cost of the final disposal of the radioactive waste, including spent fuel and dismantling of NPPs at the end of their operating life, is billed directly to the NPPs. Since 1984 and until last April, this cost was financed through the electricity bill. In Spain, there is a national repository for low- and intermediate-level radioactive waste in operation since 1992, and there are initiatives to build a temporary central storage for spent fuel and high-level radioactive waste, for operation by 2010. In the meantime, due to the saturation of the capacity of Trillo NPP's spent fuel pool, there is a spent-fuel cask-storage facility at this plant. Also, José Cabrera NPP, which will come to the end of its operating life in April 2006, is beginning the construction of another one. Periodically, the government updates the National Plan for Radioactive Waste, which includes the foreseen cost of the Plan to 2070 (about 12,000 Meuros).

Mr. <u>Alfonso de la Torre</u>, General Secretary of the Spanish Nuclear Society, provides the following information on two coming events in Spain:

- X National Congress of the Spanish Radiological Protection Society (SEPR), to be held next September 20th to 23rd in Huelva, a city located in the South of the country. More information on this congress is available at the SEPR website www.sepr.es.
- The Annual Meeting of the SNE, to be held next October 19th to 21st in Logroño, the capital city of La Rioja region. Over 500 participants are expected to attend the meeting. The program includes the presentation of around 250 papers, as well as two plenary sessions devoted to a discussion on "Nuclear Assets Management" and on "Bases for the Near Nuclear Energy Future", respectively. More information on this meeting is available at the SNE website, www.sne.es.
- The Canadian Nuclear Society held its 26th Annual Conference in Toronto, Ontario, 2005 June 12-15. ANS Vice-President and President Elect <u>Harold F. McFarlane</u> was invited to the Conference, and delivered a very informative talk on "Changing Prospects for Nuclear Energy in the United States".

The Canadian Nuclear Society had an excellent year for Conferences in 2005, with five major events: The "Workshop on Lifecycle Management" (in Oshawa, in February), the "Conference on Waste Management, Decommissioning and Environmental Restoration" (in Ottawa, in May), the 27th Annual Conference and imbedded CNS-CNA Annual Student Conference (in Toronto, in June), the "9th International Conference on CANDU Fuel" (in Belleville, in September), and the "7th International Conference on CANDU Maintenance" (coming up in November in Toronto). In addition, the CNS offered several courses.

The CNS is currently very busy organizing the ANS PHYSOR-2006 Reactor Physics Topical, which it will host in Vancouver 2006 September 10-14.

• The ANS Japan Section sent a report on its major activities. The Section holds several lecture meetings for members each year. In 2004-2005 there were, for example, talks by Larry Foulke and James Tulenko (then President and President-Elect of ANS) on "The Ten Top Issues for the Renaissance of Nuclear Power in the US" and on "Nuclear Power and the Environment", respectively, and a talk on "The Nuclear Industry in the UK – the History, the Change, the Future" by John Edwards (BNFL Japan). Several international conferences will be held in Japan in 2005 and 2006; they are listed in the Calendar of Events below.

The Chair, Vice-Chair, and Secretary of the ANS Japan Section for April 2005 to March 2006 are:

Chair: Akira Sudo

Vice-Chair (Chair-Elect): <u>Hisashi Ninokata</u> Secretary of General Affairs: <u>Tsuyoshi Hagiwara</u>.

Other news which were relayed from Japan by Mr. Kiyoto Aizawa (Senior Executive Advisor, JNC) are that the Japan Supreme Court approved on 2005 May 30 the building of the Monju prototype FBR in Tsuruga, Fukui Prefecture, paving the way

- for reopening the facility, which has been in a shutdown state for a decade following a sodium leakage accident and a cover-up. Japan does not have many natural resources and views the fast-breeder technology as necessary to ensure a stable energy supply.
- The Sociedad Nuclear Mexicana sent a report. It held its annual meeting 2005 July 10-13 in conjunction with the Sociedad Mexicana de Seguridad Radiólogica in Oaxaca City, Oaxaca, México. Also, the Sociedad Nuclear Mexicana was a founding member in May 2005 of the Hydrogen National Network of Mexico. Mr. José Luis Delgado of the Sociedad was elected Secretary of the International Nuclear Societies Council. Dr. Juan Luis Francois became President of the Latin American Section of the ANS in 2005 June.

Highlights from the 2005 June San Diego Meeting

Vice Chair of the ANS International Committee <u>Peter Planchon</u> arranged for this photo of the Committee members and guests present at the San Diego meeting of the Committee to be taken.



Seated, left to right: Mike Diekman, ANS President Jim Tulenko, Committee Chair France Brès-Tutino. Committee Vice-Chair Peter Planchon, Dr. Eugenijus Ušpuras (Director of the Lithuanian Energy Institute), Mario Carelli, Walter Kato. Standing, left to right: Steve Stamm, Stephen Shepherd, Masao Hori, Rolland Langley, Gail Marcus, Juan Luis Francois, Benjamin Rouben, Bertrand Barré, Hisashi Ninokata, Philip Beeley, Shih-Kuei Chen

The New International Mini-Forum

Chair France Brès-Tutino had invited <u>two speakers</u> to this Mini-Forum on the agenda of the International Committee Meeting held in San Diego.

The first speaker was <u>Dr. Eugenijus Ušpuras</u>, Director of the Lithuanian Energy Institute, who gave a very interesting and comprehensive presentation on "Nuclear Activities in Lithuania". Dr. Ušpuras received the degree of Doctor Habilitus in Energy and Thermal Engineering Sciences in 1998. In 2001, he was conferred the title of professor and was elected a member-expert of the Academy of Sciences of Lithuania.

Ignalina, Lithuania's only nuclear generating station, is a 2-unit Soviet-designed plant. It is located close to the borders of Belarus and Latvia. Its two RBMK reactors came on line in 1983 December and 1987 August respectively. Ignalina's total



nominal capacity is 1500 MWe (4800 MWth). Ignalina dominates electrical generation in Lithuania: it produced more than 75% of the electricity generated in Lithuania in 2004. It has been very important to the Lithuanian economy. Nonetheless, for political considerations, Unit 1 was shut down on December 31, 2004, and Unit 2 will be shut down in 2009.

A number of important and in-depth safety studies were carried out for Ignalina, most of them with international co-operation. In fact, Ignalina NPP is unique among all RBMK reactors in the scope and comprehensiveness of safety analyses which have been conducted to verify its design parameters and analyse its level of risk. International studies such as Barselina, SAR, RSR and follow-up safety analyses provide a verified, state-of-the-art base of knowledge which allows assessing the present level of safety, comparing it to that of other plants, and planning improvements. Safety analyses have determined that, in terms of PSA indices, Ignalina NPP is comparable to Western reactors.

Following some of the recommendations of the safety studies, a number of improvements important to operational safety were made. Some examples are: reduce the positive void coefficient, upgrade equipment, implement a full-scope training simulator, introduce a program to improve safety culture, implement quality-assurance procedures, introduce training in modern approaches for NPP management.

As for the future, there is currently overcapacity in Lithuania and Estonia. Production and consumption are expected to be almost in balance in the period 2010–2015. Lithuania's network has very strong interconnections with some neighboring countries, but none with EU countries. It is strongly expected that after Ignalina is shut down, the average production cost will be higher in Lithuanian than in most neighboring countries

Dr. Ušpuras discussed also the energy-supply situation in the Baltic states. There is high diversity of fuel supply in the Baltic. Constant base-load gas supply reduces the economical attractiveness of new NPP. A new nuclear power plant would not significantly increase security of energy supply if measured in terms of diversified fuel supply, because nuclear fuel replaces mainly orimulsion, which is supplied from the West. However, a nuclear power plant would contribute to the security of energy supply in the case of concern about fuel storage.

The second speaker was Mr. F. Mark Reinhart, Chief of the Operations Support and

Licensing Section, Probabilistic Safety Assessment Branch, Office of Nuclear Reactor Regulation of the US Nuclear Regulatory Commission. Mr. Reinhart was speaking on behalf of Ms. Janice Dunn Lee, Director of the NRC's Office of International Programs. He gave a presentation on the US NRC's international activities.

Mark Reinhart is shown here on a rainy day in Paris, France, on a bridge over the River Seine.



The legal and policy basis of the NRC's international role rests on:

- statutory requirements, such as the Atomic Energy Act of 1954, as amended, the 1978 Nuclear Non-Proliferation Act, etc.
- the US Government's participation in obligations and commitments, such as with the IAEA, the OECD, and the Group of Seven Nuclear Safety Working group
- international treaties and agreements, such as the Nuclear Non-Proliferation Treaty, the IAEA-US Safeguards Agreement, the Convention on Nuclear Safety, and
- Executive orders and Presidential decision directives

Major programmatic areas and current topics are:

- Export and import licensing (reactors, fuel-cycle facilities, nuclear materials, etc.)
- Nuclear non-proliferation activities (safeguards activities, plutonium disposition, etc.)
- Multilateral and bilateral nuclear-safety activities in nuclear safety exchanges (such as with the Group of Eight, the IAEA and the OECD), waste disposal, MOX fuel fabrication, international standards, and
- Research co-operation (nuclear safety research) 95 bilateral research agreements.

The US NRC has a Technical Information Exchange and Co-operation Arrangement with a large number of partner countries. It plays an extremely important role in international activities, research, assistance, training and co-operation.

Presentation from the Moroccan Nuclear Society (Association des Ingénieurs en Génie Atomique du Maroc – AIGAM)

AIGAM representative <u>Professor Oum Keltoum Bouhelal</u> was introduced and gave a presentation on AIGAM and its activities in Morocco.

AIGAM was created in 1985. Its mission is to promote scientific exchanges on peaceful nuclear applications, both at the national level in Morocco, as well as internationally. Such scientific exchanges have been organized regularly, for example on nuclear techniques in agriculture, health, and industry, on radioactive waste management, and on nuclear research reactors and prospects for development in Morocco. An excellent



example of scientific exchange was the very successful conference on "Nuclear Desalination: Challenges and Options", held in Marrakech in 2002 in collaboration with the World Nuclear Users Group (WONUC) and attended by representatives from 35 countries. AIGAM recently (in 2003) initiated a collaboration agreement with the ANS.

Prof. Bouhelal informed members of the International Committee about the next AIGAM conference, "Nuclear Power: an Economic and Environmental Asset", which will be held 2005 November 24-25 in Rabat, Morocco, and invited them to attend. This conference marks the 20th anniversary of the AIGAM. It will cover a broad scope of topics, such as history, international co-operation, emerging trends, etc.

On behalf of AIGAM and its President, Mr. Mekki Berrada, Prof, Bouhelal expressed warm thanks to the ANS and to the Chair of the International Committee, France Brès-Tutino, for the co-operation agreement and on-going support.

Joint Protocol Between the International Committee and the Professional Divisions Committee for Mutually Beneficial Co-Operation

At the San Diego meeting the International Committee reviewed and unanimously approved a Joint Protocol with the Professional Divisions Committee (PDC). This Protocol, intended for mutually beneficial co-operation, had been developed by International Committee member L. Manning Muntzing. The joint protocol is designed to define the process for interaction between the two committees to exchange information, consider respective needs and opportunities, and develop strategies of mutual support. The protocol will allow the committees to focus on early co-ordination of programs, enhance mutually beneficial initiatives, and minimize duplication. For instance, it will be possible to pay particular attention to co-sponsor sessions at meetings and, where appropriate, invite international members as speakers or session chairs at conferences and meetings. The PDC also unanimously approved this Joint Protocol at its own meeting during the San Diego meeting. Chair France Brès-Tutino is the International Committee representative to the PDC, and Donald R. Hoffman is the PDC representative to the International Committee.

Young Generation Corner

IYNC-2006!

IYNC2006 will be held June 18 – 23, 2006 in Stockholm, Sweden (shown at right). The Technical Program of the Congress consists of four scientific tracks with technical presentations, keynote speakers, panel sessions and workshops. The Technical Program will also include a visit to Olkiluoto, Finland to see the first EPR reactor under construction and a deep geological repository for spent fuel. In addition to the comprehensive Technical Program, a number of voluntary Social



Program events are arranged. These activities will introduce the participants to the beauty of the Scandinavian nature and traditions of the Midsummer festival.

Societies with Collaboration Agreements with ANS

The following is a list of nuclear societies with collaboration agreements with the ANS, along with the corresponding website addresses. The Table contains also a few other entries of interest to ANS International Committee members.

Society	Website or E-Mail Address
Asociación Argentina de Tecnología Nuclear	-
Associação Brasileira de Energia Nuclear	www.aben.com.br
Association des Ingénieurs en génie atomique du Maroc	-
Atomic Energy Society of Japan	wwwsoc.nii.ac.jp/aesj/index-e.html
Australian Nuclear Association	www.nuclearaustralia.org.au
Bangladesh Nuclear Society	-
Bulgarian Nuclear Society	www.bgns.bg
Canadian Nuclear Society	www.cns-snc.ca
Chinese Nuclear Society	www.ns.org.cn
Croatian Nuclear Society	hnd.zvne.fer.hr
Czech Nuclear Society	www.csvts.cz/cns
European Nuclear Society	www.euronuclear.org
Hungarian Nuclear Society	www.kfki.hu/~hnucsoc/hns.htm
Indian Nuclear Society	www.indian-nuclear-society.org.in
Israel Nuclear Society	alfassi@bgumail.bgu.ac.il
Lithuanian Energy Institute	<u>www.lei.lt</u>
Malaysian Nuclear Society	www.mint.gov.my/mns
Nuclear Energy Society of Kazakhstan	www.nuclear.kz

Nuclear Energy Society of Russia	ns@kiae.ru
Nuclear Energy Society of Slovenia	www.drustvo-js.si
Nuclear Energy Society of Thailand	www.nst.or.th
OECD/Nuclear Energy Agency	www.nea.fr
Polish Nuclear Society	www.ptn.nuclear.pl
Romanian Nuclear Energy Association	www.aren.ro
Romanian Society for Radiological Protection	www.ispb.ro/rsrp.htm
Slovak Nuclear Society	www.nuc.elf.stuba.sk
Sociedad Nuclear Española (SNE)	www.sne.es
Sociedad Nuclear Mexicana	www.sociedadnuclear.org.mx
Ukranian Nuclear Society	www.ukrns.odessa.net
Affiliated National Societies	Website or E-Mail Address
Belgian Nuclear Society	www.bns-org.be
Associated Nuclear Organizations	Website or E-Mail Address
International Nuclear Societies Council	http://insc.dyndns.org
Pacific Nuclear Council	www.pacificnuclear.org
Non-U.S. Local Sections	Website or E-Mail Address
French Section	
Japan Section	
Latin American Section	www.las-ans.org.br

Calendar of Events

<u>Some Upcoming International Conferences on Nuclear Topics</u> (Please let us know your upcoming conferences for inclusion in this space)

2005

- <u>12-15 September</u>: 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
- <u>18-21 September</u>: 9th International Conference on CANDU Fuel, "Fuelling a Clean Future", Belleville, Ontario, Canada (organized by the Canadian Nuclear Society) http://www.cnc-snc.ca
- <u>2-6 October</u>: 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
- <u>2-6 October</u>: 2005 Water Reactor Fuel Performance Meeting, Kyoto, Japan http://www.nxo.jp/wrfpm

- <u>3-7 October</u>: International Conference on the Safety of Radioactive Waste Disposal, Tokyo, Japan (organized by the IAEA) http://www.iaea.org
- <u>9-13 October</u>: GLOBAL 2005, Tsukuba International Congress Center, Tsukuba, Japan http://www.global2005.org
- <u>18-21 October</u>: Asia-Pacific-Symposium on Radiochemistry, APSORC 2005, Beijing, China, http://www.ihep.ac.cn/apsorc2005
- <u>20-21 October</u>: "Energy Development Planning and Nuclear Power Plants Safety Issues" Conference, Yerevan, Armenia (co-organized by the All-Armenian Association of Nuclear Power Engineers) E-mail: <u>atomen@freenet.am</u>
- <u>28 October</u>: "Nuclear Physics for the People" Conference, Sofia, Bulgaria (organized by the Bulgarian Nuclear Society), E-mail: <u>bgns@inrne.bas.bg</u>
- <u>2-4 November</u>: "International Symposium on Radiation Safety Management", Daejeon, Korea (organized by Korea Hydro & Nuclear Power Co. Ltd. and Korean Radioactive Waste Society) http://www.knetec.com/isrsm
- <u>3-5 November</u>: The NATO Forum on Energy Security Technology, Prague, Czech Republic http://www.energy-security.org
- <u>13-17 November</u>: ANS Winter Meeting, Washington DC, USA <u>http://www.ans.org/meetings</u>
- <u>20-22 November</u>: 7th CNS International Conference on CANDU Maintenance, Toronto, Ontario, Canada (organized by the Canadian Nuclear Society) http://www.cns-snc.ca
- <u>24-25 November</u>: AIGAM Conference "Nuclear Power: AN Economic, Scientific, and Environmental Asset", Rabat. Morocco (organized by the Association des Ingénieurs en Génie Atomique du Maroc)
- <u>11-14 December</u>: ENC 2005 European Nuclear Congress, "Nuclear Power for the XXIst Century: From basic Research to High-tech Industry", Versailles, France (organized by the European Nuclear Society and the French Nuclear Energy Society)
 <u>http://www.sfen.fr/enc2005</u>

2006

• 12-15 February: ANS Topical Meetings "9th Emergency Preparedness and Response" and "11th Robotics and Remote Systems for Hazardous Environments", Salt Lake City, Utah, USA (hosted by ANS Idaho Section) – http://www.2006sharingsolutions.com

- <u>2-6 April</u>: ANS Radiation Protection and Shielding Division Topical Meeting, Carlsbad, New Mexico, USA http://www.ans-rpsw-carlsbad.com
- <u>3-7 April</u>: MARC VII, 7th Methods and Applications of Radioanalytical Chemistry Conference, Kona, HI, USA http://www.min.uc.edu/nuclear/marc/
- <u>23-28 April</u>: RadChem 2006, 15th Radiochemical Conference, Marianske Lazne, Czech Republic <u>http://www.fjfi.cvut.cz/radchem</u>
- <u>30 April- 3 May</u>: RRFM 2006, "Research Reactor Fuel Management 2006", Sofia, Bulgaria http://www.rrfm2006.org
- <u>30 April 4 May</u>: 2006 International High-Level Radioactive Waste Management Conference, Las Vegas, NV, USA http://www.ans.org/meetings
- <u>9-12 May</u>: "Climate Change Technology Conference: Engineering Challenges and Solutions in the 21st Century", Ottawa, Ontario, Canada (organized by Engineering Institute of Canada) http://www.ccc2006.ca
- <u>30 May 1 June</u>: WIN GLOBAL 14th Annual Meeting, Kitchener, Ontario, Canada (hosted by WIN Canada) http://www.win-global.org
- <u>4-8 June</u>: ANS Annual Meeting and ICAPP 2006, Reno, Nevada, USA <u>http://www.ans.org/meetings</u>
- <u>11-14 June</u>: 27th Annual Conference of the Canadian Nuclear Society, Toronto, Ontario, Canada <u>http://www.cns-snc.ca</u>
- <u>18-23 June</u>: 2006 International Youth Nuclear Congress IYNC, Stockholm (Sweden) and Olkiluoto (Finland) http://www.iync.org
- <u>10-14 September</u>: ANS Topical Meeting: Physics of Reactors 2006 (PHYSOR-2006), Vancouver, British Columbia, Canada (organized and hosted by Canadian Nuclear Society) http://www.cns-snc.ca/physor2006
- <u>15-20 October</u>: 15th Pacific Basin Nuclear Conference (15th PBNC), Sydney, Australia (organized by Australian Nuclear Association and Institute of Engineers Australia) http://www.pbnc2006.com
- <u>12-16 November</u>: ANS Winter Meeting, Albuquerque, New Mexico, USA <u>http://www.ans.org/meetings</u>
- <u>26-29 November</u>: CNS 5th International Conference on Steam Generators and Heat Exchangers, Toronto, Ontario, Canada (organized by the Canadian Nuclear Society) http://www.cns-snc.ca

2007

- mid May: ICAPP 2007, Nice, France
- <u>11-15 June</u>: ENC 2007, Manchester, United Kingdom (to be hosted by the British Nuclear Energy Society on behalf of the ENS).
- <u>24-28 June</u>: ANS Annual Meeting, Boston, Massachusetts, USA <u>http://www.ans.org/meetings</u>
- <u>11-17 November</u>: ANS/ENS International Winter Meeting, Washington, DC, USA <u>http://www.ans.org/meetings</u>

→ Contact ANS International Committee Members by E-mail:

Officers	Office	e-mail
France C. Brès-Tutino	Chair	france.brestutino@wanadoo.fr
H. Peter Planchon	Vice-Chair	pete.planchon@anl.gov
Staff Liaison	Organization	e-mail
Michael Diekman	American Nuclear Society	mdiekman@ans.org
Ex-Officio	Organization	e-mail
Douglas C. Crawford	Idaho National Laboratory	doug.crawford@inl.gov
Committee Members	Organization	e-mail
Irene M. Aegerter	Swiss Federal Commission on Nuclear Safety and the Cogito Foundation	irene@aegerter.net
Kiyoto Aizawa	Japan Nuclear Cycle Development Institute	aizawa@hq.jnc.go.jp
Régis P. Babinet	French Embassy, Washington D.C.	nuclear.counselor@ambafrance-us.org
Bertrand Barré	AREVA	bertrand.barre@arevagroup.com
Philip A. Beeley	HMS Sultan	sultan-psdnd@nrta.mod.uk
Mauro L. Bonardi*	University and INFN of Milano	mauro.bonardi@mi.infn.it
France C. Brès-Tutino	ANS French Local Section	france.brestutino@wanadoo.fr
Alex R. Burkart	U.S. Department of State	BurkartAR@state.gov
Mario D. Carelli	Westinghouse	carellmd@westinghouse.com
Shih-Kuei Chen	TECRO, Washington, DC	skchen@tecrosd.org
Nam-Zin Cho	KAIST	nzcho@kaist.ac.kr
Frank G. Deconinck	Vrije Universiteit Brussel (VUB)*	frank.deconinck@vue.ac.be
Teresa Dominguez	Empresarios Agrupados	mdb@empre.es
Therese M. Donlevy	, ,	therese.donlevy@austemb.org
Juan Luis François	Universidad Nacional Autónoma de México	jlfl@fi-b.unam.mx
Sophie I. Gutner	Dominion	s_gutner@yahoo.com
Donald R. Hoffman	EXCEL Services Corporation	donaldh@excelservices.com
Masao Hori	NSA, Japan	mhori@mxb.mesh.ne.jp
Chang S. Kang	Seoul National University	cskang@snu.ac.kr
Rolland A. Langley	Consultant	ralangley@earthlink.net
Gail H. Marcus	OECD Nuclear Energy Agency	gail.marcus@oecd.org

Christine R. Martin	U.S. Department of State	MartinCR@state.gov
L. Manning Muntzing	ESCL Director	a121313@aol.com
Anneli Nikula	Teollisuuden Voima Oy	anneli.nikula@tvo.fi
Hisashi Ninokata	Tokyo Institute of Technology	hninokata@nr.titech.ac.jp
H. Peter Planchon	Argonne National Laboratory	pete.planchon@inl.gov
Atambir S. Rao	Consultant	atamrao@hotmail.com
Junaid Razvi	General Atomics	razvi@gat.com
F. Mark Reinhart	U.S. NRC	parsec248@adelphia.net
Benjamin Rouben*	Atomic Energy of Canada Limited	roubenb@aecl.ca
Azucena Sanhueza-Mir	Comisión Chilena de Energía Nuclear	asanhuez@cchen.cl
Istvan Vidovszky	Hungarian Nuclear Society	vidov@sunserv.kfki.hu
Jeremy Whitlock	Atomic Energy of Canada Limited	whitlockj@aecl.ca
Zuoyi Zhang	Tsinghua University	zzy-ine@mail.tsinghua.edu.cn

^{*} Co-editors of the ANS Globe