

Issue 14, 3/2007 (September)

MARK YOUR CALENDAR!

# **WIN Global Annual Meeting 2008**

The next WIN Global Annual Meeting will be hosted by WIN-France. It will take place from **26–30 May 2008** in **Marseille**, France. The main theme will be:

## "Nuclear Revival: Maintaining Key Competencies"

The meeting will include a conference, Q&A sessions and round table discussions in Marseille.

There will be also visits to nuclear installations and other sites.

Some pictures from Marseille:



## Meeting of Young Female Professionals of WNU-SI 2007 with WIN-Korea



On 21 August, WIN-Korea hosted an international meeting and dinner at the Ramada Cheongju Hotel in Korea. The event coincided with the 3rd World Nuclear University Summer Institute (WNU-SI) taking place in Korea, and was attended by many of the WNU-SI's female Fellows. Also in attendance at the meeting were Mentors and Lecturers of the WNU-SI, and WIN-Korea members.

Chief coordinator of the 3rd WNU-SI Byung-Joo Min gave a warm welcome to the participants, while former president of WIN-Global Annick Canino provided an overview of the organization she helped to found. Se-Moon Park, vice president of WIN-Korea, gave the audience interesting insights into the activities of WIN-Korea. The occasion was a great opportunity for

networking and discussions, and led to 14 new members joining the ranks of WIN-Global.

In total, there were 22 female Fellows among 102 Fellows from 35 countries selected to participate in the 3rd WNU-SI

The fourth annual WNU-SI will take place next year in Canada between 5 July and 15 August. Once again it will be an opportunity for promising young professionals and graduate students to take part in a unique programme featuring lectures from world-class experts on the range of topics relevant to the future use of nuclear technology, leadership-building activities and technical tours. The announcement can be downloaded from www.world-nuclear-university.org/html/summer\_institute/index.htm



## WIN-Canada has surpassed its 2007 goal of 500 members!

Author: Susan Brissette, President WIN-Canada



So far, 2007 has been another year of growth for WIN-Canada. We recently surpassed our 2007 goal of 500 members and now have six local chapters.

We have launched science camps for girls, held successful industry events, partnered up

with Skills Canada to promote women in the trades; have taken a stand on issues, and have held numerous professional development events for members. Looking forward, we plan to launch a new website later this year and are well advanced with preparations for our 2008 Annual Meeting in February.

Just recently, our efforts were recognized when two of our long standing supporters, Bruce Power and Ontario Power Generation, agreed to jointly fund a full time WIN Canada Executive Director position.

I am delighted to announce that Cheryl Cottrill, whom many of you know from the 2006 WIN Global Meeting, is taking on that role. Cheryl will be instrumental in developing new programs for all local chapters to share, building our membership base, and helping to launch even more local chapters.



Looking forward to seeing many of you at WIN Global 2008!

Susan Brissette

#### Launch of WIN-NB



WIN-Canada Board members were on hand in June to celebrate the launch of the WIN-New Brunswick local chapter at the Point Lepreau Generating Station branch. WIN-NB already has 44 members!

#### Science Club for Girls

In August, WIN-Bruce kicked off its *Girls in Real Life Science Club* by exploring the science behind crime scene investigation. Twentyfour elementary school girls lifted fingerprints, used chromatography to



determine which pen wrote a ransom note at the crime scene and identified hair strands to determine who stole

the jewels from Lord and Lady Bruce.



### Habitat for Humanity

Putting their skills to good use, members of WIN-Bruce volunteered one Saturday in August to help with a Habitat for Humanity build in the nearby town of Owen Sound.

### Sharing ideas



Participants enjoy a meeting of the WIN Golden Horseshoe West Branch. The branch has 70 members representing women working in a wide variety of nuclear related businesses in the downtown Toronto and Mississauga areas.

- In June 2007 WIN-Canada sponsored Deborah Gillis, Catalyst Canada, to speak to the plenary of the Canadian Nuclear Society on the recruitment and retention of a diverse talent and women specifically.
- "The Changing Face of Nuclear" was the theme for the 4th WIN-Canada Annual Meeting held at the National Arts Centre in Ottawa on February 28th, 2007. Over 130 members attended the full-day event.



## WIN-Bulgaria Conference, 29-30 June 2007

The Bulgarian section of WIN held its annual general conference on 29-30 June 2007, in the town of Kozloduy, in the vicinity of the only Bulgarian nuclear power plant. The theme of the conference was "Nuclear energy – in the hands of youth".

The conference reviewed all activities performed by the organization from 2005 to 2007. Initiatives and activities for the forthcoming two year period were also discussed and specified. Two events - evenings of science devoted to physics and chemistry held within the past two years with the participation of teams of students from Kozloduy and Belene (the town where a new nuclear power plant is to be constructed) - were determined to be among the most efficient vehicles to promote WIN Bulgaria's ideas and to reach its objectives. All participants agreed that involvement of young people in nuclear energy-related activities should continue to be the major priority for the organization. Their unflinching confidence in the value of these actions was confirmed by official greetings from a group of students, expressing their thanks for the opportunity to enrich and deepen their knowledge of natural sciences and their application in nuclear power production. Students from higher schools suggested that a students' section of WIN-Bulgaria should be established, a proposal which enjoyed wide approval.

Conference participants elected a new executive body of the organization for the next two year period. Mrs. Katya Minkova – a chemist at Kozloduy NPP – succeeded the chairpersonship of Mrs. Daniela Manova who has led the organization until now. The Conference re-elected the Mrs Boyana Garkova as secretary of WIN–Bulgaria, while Mrs Svetlana Dimova will be WIN Global liaison coordinator for the next term.



From left to right: Siyana Balieva, Daniela Manova and conference guests Lyubka Kostova (vice-president of the Bulgarian Nuclear Society) and Mitko Yankov (Safety and Quality Director, Kozloduy NPP)

The ladies reached a decision on structuring the organization to comprise territorial sections that would facilitate coordination of activities and at the same time would enable various events to be conducted in different places. Three sections were established – Kozloduy, Belene and Sofia. The students' section will be the fourth one in the organization. The conference voted that Chairpersons of the sections will be members of the executive body.

The general conference also decided that WIN-Bulgaria should become a collective member of BULATOM (a non-governmental trade association of nuclear-related companies in Bulgaria).



From left to right: Daniela Manova (ex-chairperson of WIN-Bulgaria), Katya Minkova (chairperson-elect of WIN-Bulgaria) and Boyanka Garkova (WIN-Bulgaria secretary)

## WIN-Taiwan Annual Meeting, 9 August 2007

On August 9, WIN-Taiwan held its 2007 annual meeting jointly with the American Nuclear Society - Taiwan Section at National Tsing Hua University's newly re-established Institute of Nuclear Engineering and Science. The Institute was renamed twice as "non-nuclear" during the past ten years, and is now re-embracing "nuclear", thanks to the global trend of nuclear renaissance. During the break, the Institute took advantage of the crowd and held an unveiling ceremony. Dr. Yen-wan Hsueh Liu, newly appointed director of the Institute and also a member of WIN-Taiwan, was among the speakers at the ceremony, and was interviewed by the media.

While the business meetings were held separately at the Institute, two assemblies were held at which many faculty members and graduate students totaling nearly 100 people listened to two short presentations and a special speech. Dr. Hui-Wen Huang and Dr. Jong-Rong Wang of ANS Taiwan Section presented status reports for two international cooperation projects: COMPSIS (Computerbased System Important to Safety) as led by OECD/NEA and CAMP (Thermal-Hydraulic Code Application and Maintenance Program) as led by US NRC. The last but best on the morning agenda was a speech on "Biological Diversity" delivered by Dr. Anne Chao, National Chair Professor of the Statistics Institute of the University, Associate Editor of Biometrics and passionate environmentalist. Her lively presentation with outpouring passion for the local species of domestic animals was truly inspirational and won her lots of applause. It also helped better connect us with the importance of environmental protection.

Two field visits were organized in the afternoon, to Taipower's Tatan gas-fired power plant and the Image Museum of Hsinchu Culture Bureau. The plant has six units with a total installed capacity of about 4,400 MWe. So far, four units have been in commercial operation; the remaining two are in test runs, and scheduled to be connected to the grid next year. The Image Museum used to be a movie theater built in 1933, and the first ever equipped with air conditioning in Taiwan. It reminded many members, especially Tsing Hua alumni, of their young college days.

Aside from the annual meeting, WIN-Taiwan also conducted a one-day excursion, "Introducing Radiation and Nuclear Power", on 12 July. About forty school

children and parents visited Taipower's Northern Visitors Center and a radwaste volume reduction center. In addition to the guided tours, a lecture on radiation and everyday life was given, followed by a panel discussion, all conducted by WIN members. On the way back, visits of nearby cultural and scenic attractions were also arranged, including Shihmen Wind Power Station. A similar activity is taking place at Taipower's Southern Visitors Center on 28 September.



Dr. Yen-wan Hsueh Liu, newly appointed director and member of WIN Taiwan, was among the speakers at the Institute's unveiling ceremony.



Group picture taken in front of the 1/2 scale model of a reactor core at Taipower's Northern Visitors Center on 12 July 2007.

## WIN-Japan Symposium at Hamaoka Nuclear Power Plant

Every year, WIN-Japan hosts table discussions and meetings between WIN-Japan members and nuclear power plant neighbors. Thus, on Sunday, 8 July 2007, WIN-Japan hosted a symposium for local female residents in Omaezaki city, Shizuoka Prefecture, where the Chubu Electric Power Company's (CEPCO) Hamaoka NPP is located. CEPCO also supported this big event. The symposium had two parts: the first was a talk by a popular actor, and the second part was the table discussion between WIN-Japan members and local female residents. Around 100 women and 22 WIN-Japan members participated and enjoyed the whole program. All participants were very pleased with the outcome of this activity.



The speaker of the symposium's first part, Mr. Hiroyuki Konishi, is a famous Japanese actor born in nearby Omaezaki. He survived a very severe kidney cancer a few years ago. Based on his experience of fighting against the disease, he talked about how it is wonderful and important to just live. And his message at the lecture was very clear: the scalpel is always used to save people but the knife some times kills people when used as a weapon. Nuclear energy is similar to this. All the participants agreed with his point of view. "Please learn more about nuclear energy and think about energy supplies of the future. The important thing is to be able to judge by your own mind." Mr. Konishi talked to the audience with passion and he touched their hearts.

The second part was the table discussion. A few WIN-Japan members sat down at each table with about 8 participants, and enjoyed lunch while having a conversation. Sometimes, Mr. Konishi joined in with and further enlivened the conversation. During the two hours of this session, many kinds of topics were discussed: concerns over global warming, future energy resources, health effects of radiation, nuclear power plant safety and the use of MOX fuel in operating plants. At the closing session, one participant from each table delivered a summary of their discussion to the rest of the symposium attendees. It was revealed that after the event many participants thought that nuclear energy was necessary. They appreciated this opportunity to ask for exact and quick information directly from nuclear power plant employees. "The explanations from WIN-Japan members are very clear and easily understandable. I could ask any elementary questions and I got answers to all of my questions." Most of the participants seemed to have been positively impressed. The results of a questionnaire showed that a solid majority (93 percent) of the participants were pleased with this experience, and 70 percent answered that they became more interested in energy and nuclear.



WIN-Japan members line up

WIN-Japan is committed to continue organizing various effective events in order to improve understanding by women and the younger generation, thus contributing to the development of nuclear power generation in Japan.



Participants enjoy the table meeting in a friendly atmosphere

#### From Slovenia

# How to approach industry experts and members of public?

The WIN section in Slovenia, called Alfa Section, which was introduced in WINFO No 7, 2005, has recently launched a web site: <a href="https://www.djs.si/alfa">www.djs.si/alfa</a>.

Today more than 30 members take part in the activities of the Alfa Section, which is a part of Nuclear Society of Slovenia. The web site will facilitate the information flow between experts and the general public.

The web site includes a leaflet, a presentation by experts given at the Alfa Section public tribunes, and presentations of other activities as well as photos of activities. In addition, some professional work of members is described.

The majority of pages are in Slovenian, while one page is also in English

(http://www.djs.si/alfa/index\_files/about\_us.htm).

Presentations by experts at public tribunes are given in Slovenian or English as appropriate.

The members of WIN are kindly invited to visit the page and to send comments to nadja.zeleznik@gov.si.

Author: Helena Janžekovič, Alfa Section of the Nuclear Society of Slovenia

### From Sweden

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# Lecture on transmutation – with presentation of a new concept!

Last spring WIN Sweden invited Janne Wallenius, associate professor and head of the department of reactor physics at KTH (Royal Institute of Technology) in Stockholm, Sweden, to lecture. The subject of the lecture was transmutation. All personnel at Ringhals, and members of WIN Sweden, were invited to participate, and more than 150 persons signed up.

Mr Wallenius gave an intriguing lecture about today's plans for a future nuclear waste repository. Mr Wallenius also explained how the inventory and time for storage could be decreased by separating some nuclides and through transmutation and re-use of these fission products as fuel.

The audience was presented with facts regarding the intense global research to formulate fuels and reactors that would enable complete recycling of the extracted material. Most exciting, however, was the part of the lecture where Mr Wallenius, and his colleague, Daniel Westlin, presented a completely new concept for transmutation in existing boiling water reactors.

A lot of positive feedback was given following the lecture, and the audience had a lot of questions for Mr Wallenius and his colleague.

Authors: Charlotte Wange and Maria Hedeklint, Ringhals.

#### From France

# How to prepare the industrial sites of tomorrow?

By dismantling of closed facilities. Example: nuclear power stations of Electricité De France (EDF) in France.

At the request of EDF Burgundy, SFEN Burgundy and **WIN-Burgundy**, Serge Klaeyle, Director of the CIDEN (Centre d'Ingénierie Déconstruction et Environnment) gave a lecture in Dijon on 14 June in front of the students of ESIREM (Ecole Supérieure d'Ingénieurs de Recherche en Matériaux).



Serge Klaeyle: "The CIDEN was created in 2001. Its focus is on dismantling of shut-down nuclear stations. We operate at 9 sites and the decommissioning program spreads out over 25 years, in two phases:

- Brennilis: industrial prototype reactor moderated by heavy water, connected to the electricity grids in 1967, capacity 70MWe, permanently shut down in 1995.
- Creys Malville: sodium cooled fast reactor (RNR), commissioned in 1986, capacity 1200MWe, closed in February 1998 for political reasons. To deal with the 5000 tons of sodium, we created an appropriate workshop in the old engine room on site; there, sodium will be turned into soda, then it will be encapsulated in concrete blocks. The concrete blocks will be stored on site during the time of dismantling.
- Chooz A: the first pressurized water reactor (PWR) built in France, connected to the grid in 1967, capacity 305MWe, shut down in 1991. Chooz A is an essential step since it will allow to establish the future strategy for France's 58 PWR reactors, currently run by EDF.

- Bugey 1: a pilot project for dismantling of a reactor of the Natural Uranium Graphite Gas type (UNGG), which was shut in 1994. Bugey is the youngest of the 6 UNGG stations. Works will produce graphite waste for which ANDRA (Agence Nationale pour la Gestion des Déchets Radioactifs) is currently in a process of selection of a final storage site.
- Dismantling of the 9 reactors will also produce 500 t of active long life radwaste intended for the deep underground storage projected by ANDRA by 2025. While waiting, EDF will build a temporary storage ICEDA (Installation de Conditionnement et d'Entreposage des Déchets Actifs) in Bugey.

The second phase relates to the other UNGG reactors, Saint Laurent A1 and A2, and Chinon A3, A2 and A1.

Serge Klaeyle specifies: "We transform waste into special packages approved by ANDRA. We manage direct logistic flow, without any stock on site. The produced waste is composed of 90% of very low active or low active, fairly short-lived waste (period lower than 30 years)"

"After rehabilitation, we restore a ground with a radioactivity lower than the natural one, this is laid down by the Nuclear Authority of Safety."

"In our field, international co-operation is essential. We integrate the experiment feedback from the USA for the PWR (Pressurized Water Reactor) and United Kingdom for Gas-Cooled reactors (UNGG)."



CIDEN's three fields of operation are: dismantling, waste management, and environment. It employs 580 people, in particular technicians and engineers who are specialists in safety, radiation protection, environmental conservation, operation of nuclear facilities, management of radwaste, sanitation, dismantling and concrete rubble of structures. The headquarters are in Villeurbanne (Rhone), where more than 350 people are based.

#### More information:

http://www.industrie.gouv.fr/energie/nucleair/pdf/deconstruction.pdf

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