



Issue 15, 4/2007 (December)

WIN Workshop and Board Meeting 12 February 2008 (during PIME 2008), Prague.

From February 10-13, nuclear communicators from around the world will gather for the annual Public Information Materials Exchange (PIME) conference taking place this time in Prague, Czech Republic. The conference theme is "Defining Tomorrow's Vision of Nuclear Energy" and once again Women in Nuclear will be hosting a session. This year, as part of the main conference programme, WIN will host the *Public Consultation and Stakeholder Involvement* workshop.

There is no cost for WIN members to attend the workshop, so you don't need to register for the full conference. The WIN workshop takes place on Tuesday 12 February from 11:00-13:00; the PIME organizers have kindly offered WIN members lunch following the workshop.

At 17:30, the WIN Board meeting will take place, followed by a dinner for WIN members at a local restaurant (each WIN member to pay their own way) being coordinated by Marie Dufkova, WIN Czech Republic.

If you plan to attend the WIN Workshop at PIME, the lunch that follows, and/or the WIN member dinner, please email me (susan.brissette@brucepower.com) no later than 20 January 2008. More information about PIME can be found at www.PIME2008.org

WIN Global Annual Meeting 2008 Nuclear Revival: Maintaining Key Competencies

Arising key competencies for nuclear energy: A challenge and an opportunity for diversity development

The next WIN Global Annual Meeting, organized by WIN-France, will take place in Marseille, France, 26-30 May 2008.

The meeting will include a conference, Q&A sessions and round table discussions in Marseille, a visit to nuclear installations at Marcoule and a cultural excursion to Avignon.

The detailed Programme and the Registration Form are available on the WIN Global website <http://www.win-global.org/win-2008.htm>

WIN-Japan Autumn “Town Hall” Meeting in Aomori

“Let’s think together with WIN-Japan about energy and nuclear issues”

On 21 September 2007, WIN-Japan organized a town hall meeting for women living in Aomori Prefecture, where nuclear fuel cycle facilities are located. 15 WIN members gathered from across the nation to interact with the audience. All participants enjoyed communicating and received a lot of valuable information.



Prof. Y. Hikage

The meeting was planned as the second gathering after the symposium held in Aomori last winter. The programme was in two parts. In Part I, Prof. Y. Hikage, of Hirosaki University, delivered a key note lecture entitled “Let’s look at the environment in Blue Forest” (“Aomori” means “Blue Forest” in Japanese.)

She explained the current situation regarding the crisis coming from energy consumption and global climate change and emphasized the importance of exerting ourselves to turn ideas into action.



WIN members

In Part II, 60 participants and WIN members gathered for friendly talks over tea and cakes. One of the topics discussed by WIN members was the magnitude 6.8 earthquake that occurred in Niigata province in July 2007 and its effects on the Kashiwazaki-Kariwa nuclear power plant. WIN-Japan board member Ms. Suomi Ishibashi, who works for Tokyo Electric Power Company, explained that there was no safety relevance to the nuclear reactor facility but some irregular incidents such as a fire at a transformer at Unit 3 and a very small leakage of water and air containing radioactive material. But the amount of radiation leaked was well below the daily natural radiation amount. The audience asked many positive questions and WIN members answered them using plain words and a friendly manner. The audience received WIN very warmly and all their concerns and anxieties were put to rest.

We are proud of conducting our activity so that WIN could contribute to the smooth start of the uranium reprocessing plant operation in Rokkasho village in Aomori prefecture.



Table Talk

WIN-Korea News

2007 Nuclear Symposium with Women



WIN-Korea 2007 Annual Symposium, organized by WIN-Korea and Dr. Myung-Ok Ahn (Member of Parliament); supported by Ministry of Science and Technology and sponsored by KINS, KAERI, KIRAMS, KIER, KHNP, KOPEC, KNFC, KEPRI, KNEF, DHI, Samchang, Sinyoung Media.

WIN-Korea’s 2007 Annual Symposium, subtitled “Rendezvous of Nuclear and Renewable Energy”, was held in the National Assembly Members’ Hall conference room on 11 October 2007. Over 400 participants came from various backgrounds including consumer associations, nuclear energy-related institutes and companies, press offices and members of the National Assembly. A particularly notable participant was Yun Jeong, Vice Minister of the Ministry of Science and Technology (MOST).

Three presentations were made under the chairmanship of Prof. Sun Young Park, member of WIN-Korea. Dr. Hyeonjin Kim, chief researcher at Samsung Economy Research Institute, Dr. Euijun Lee, director of Energy Technology Research Center, and Dr. Sangdeok Park, president of KEPRI, respectively spoke on “The Meaning and Duty of the Kyoto Protocol”,

“Technological Status of Renewable Energy”, and “Sustainable Energy Nuclear”.

The three presenters, joined by Ms. Cheonju Kim, president of Korea Union of Housewives Club, Mr. Taeho Lee, director general of KHNP, and Eunsu Choi, a reporter from *Daily Economy News*, also participated in a panel discussion moderated by WIN-Korea member Dr. Young-Eel Lee.

The symposium was reported in more than 10 newspapers including *Echo Journal*, *Digital Times*, *Money Today*, *Yonhap News*, *Daily Economy News*, and *O-My News*, dealing with WIN-Korea's activities for public education about nuclear together with renewable energy focusing on prevention of global climate change.

WIN-Korea 7th General Meeting and Workshop



The 7th general meeting of WIN-Korea (WINK) was held on 6 November 2007 at Seoul Education Cultural Centre. About 50 members participated. Mr. Inho Song, CEO of Korea Power Engineering Company, made a congratulatory speech.

WINK's 2007 activities and plans for 2008 were presented by president Dr. Seong Woon Hong and approved by the members.

A workshop entitled “Survey of Public Understanding on Energy Resources including Nuclear Energy”, presenting the results of MOST's 2006 research project, was led by Dr. Se-Moon Park, vice president of WINK. Public affairs experts from the relevant nuclear

organizations were invited to take part in the workshop and discussions. Following the workshop, an invited lecture were given by Ms. Gwangmo Jeong, chairman of Korea Consumers Union, titled “Women's self-leadership”.

Workshop on Women Scientist Leadership and Education Method for Women Nuclear Educators



A workshop entitled “Women Scientist Leadership and Education Method for Women Nuclear Educators”, sponsored by Korea Science Culture Foundation and Korea Federation of Women's Science & Technology Associations, was held on 28 November at the Nuclear Engineering and Technology Institute of Korea Hydro & Nuclear Power Co (NETEC). The purpose of the workshop was to build leadership and educational skills, as part of the project “Educational Programme for Young Generation Using Women and Retired Nuclear Specialists”, which WINK is currently carrying out on behalf of the Ministry of Science and Technology.

The leadership lecture was given by Mr. Changguk Yang, former president of Korea Nuclear Fuel Co. He spoke about 21st Century women's leadership. A presentation on the “eye-level lecture technique” for the young generation was given by Dr. Se-Moon Park, WINK vice president. Her lecture was followed by a special lecture and demonstration from a magician. Mr. Wonho Choi, chief magician of Enters Magic Academy, presented his lecture entitled “Educational method of nuclear information using magical tool”. This was the first attempt by WINK to join nuclear education with a magical event!

Women in Nuclear on the World Wide Web

By Susan Brissette

As part of WIN Canada's strategy to use the power of the world wide web to better connect with our members and present a more consistent professional image to the public in Canada, WIN Canada is about to launch a new website – look out for this in the new year!

 To further expand our web presence, WIN Canada has launched a group on “Facebook”, the social networking site (www.facebook.com).

I would love to see all our international WIN friends on Facebook, participating in the “Women in Nuclear”

group. It is a great way to share pictures, news, and successes and to stay connected with colleagues. Facebook is a public site; like anything on the world wide web, you need to be careful about protecting your personal information and be conscious that what you put on Facebook is essentially public information. With this caution, I invite you all to join Facebook, look me up (Susan Brissette) and add me as a Facebook “friend” and join the “Women in Nuclear” Facebook group. Many companies have blocked Facebook from their corporate network so you may need to access Facebook from a personal computer.

New Reactors and New Materials for Tomorrow

By Anne-Marie Goube

At the invitation of SFEN Burgundy and WIN Burgundy, Philippe Billot, department manager from CEA (Commissariat à l'Energie Atomique), gave a lecture to students and secondary school pupils in Dijon on 11 October 2007.



First, a little background: currently 445 reactors are operating in the world. In France, 58 pressurized water reactors (PWR) provide 85% of the country's electricity. They are all Generation II reactors. Philippe Billot explained the basics of nuclear fission that produce:

- **Thermal neutrons** – neutrons which are slowed down by water, the neutron moderator and coolant used in PWR technology, and in the Evolutionary Pressurized water Reactor (EPR), which is currently under construction in Finland and France, and which is of the latest Generation III reactor design technology.
- **Fast neutrons** are produced in fast reactors, which have no moderator (therefore neutrons are not slowed down). There are only few fast reactors in operation: Phenix in France, BN-600 in Russia, Monju in Japan and a smaller reactor in India. Fast reactors offer the prospect of vastly more efficient use of uranium resources, because they utilize fissile and fertile materials (uranium, plutonium or thorium) more efficiently and can even produce more of the fissile material, if they are set to do so.

For an engineer, the aim is to recover the huge amount of heat generated by the chain reaction (fission) by means of the coolant, and to turn it into mechanical energy via a turbine which then drives an electrical generator. Reactor technologies differ by type of fuel, neutron moderator or coolant used in the reactor (further information on nuclear energy, specifically aimed at younger people, can be found at <http://www.cea.fr/jeunes>).

Philippe Billot: "In any industrial process, strength of materials of components must be maintained, particularly in nuclear, because of effects of irradiation due to the flow of neutrons. Irradiation of reactor materials increases

phenomena like deformation or brings others like swelling. We are working on materials for Generation IV reactors, foreseen by 2040. That is a fruit of international research. Six conditions have to be taken into account, considering 21st century requirements:

- To produce abundant amounts of energy to satisfy growing global demand and economic growth
- To produce energy without emissions of greenhouse gases
- To preserve fossil resources
- To minimize waste
- To utilize high temperature reactors particularly for production of hydrogen
- All these have to be done according to the best criteria of safety and competitiveness.

Martensitic ferritic steels have many advantages for fuel cladding, for their dimensional stability under irradiation, as well as for their corrosion resistance. Moreover, we can strengthen them with a nanometric oxide dispersion (yttrium oxide Y_3O_3). Their resistance then is improved significantly even to temperatures close to 1000°C. These so-called Oxide Dispersed Strengthened (ODS) alloys do not inflate and do not disturb the flow of coolant."



In conclusion, Billot noted that such studies are being conducted with close international cooperation in Europe, Japan and the USA.

Opportunities at the OECD Nuclear Energy Agency



Equal opportunities for men and women form a fundamental part of human resource policy at the OECD Nuclear Energy Agency (NEA). The NEA has been very active in recruiting women: at present 20% of management positions are filled by women. The NEA continues to seek well-qualified candidates from diverse backgrounds.

Current NEA vacancies are listed on the Agency's website at www.nea.fr/html/general/jobs/

The NEA is an intergovernmental organization whose primary objective is to assist its member countries in maintaining and further developing, through international co-operation, the scientific, technological

and legal bases required for a safe, environmentally friendly and economical use of nuclear energy for peaceful purposes. It is a non-partisan source of information, data and analyses, drawing on one of the best international networks of technical experts. The NEA has 28 member countries and a staff of about 70 based in the Paris area of France.

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