



GO NUKE!

A newsletter from the North American Young Generation in Nuclear

January 2003

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How is this for a recipe for fireworks (don't try this at home, kids): Start with a highly-educated, well-spoken member of a pro-nuclear Republican's technical staff, simmer with a DOE fellow and a PhD from a House Science committee subcommittee. Separately, add together charismatic experts from the staffs of a Nevada senator and from a representative who is an outspoken critic of the nuclear industry. Whip both mixtures together and flambé with resolute bastions of ANS.

The result? A super-charged ANS session attended by around 100 people, including many NA-YGN members, that lasted longer than the allotted time. The guests at the session were:

Kristine Svinicki [Senior Policy Advisor, Senator Larry Craig, R-Idaho]

Tina Kaarsberg [Professional Staff Member, Energy and Environment Subcommittee, Science Committee]

Michele Dash [DOE Fellow, Rep. Jim Clyburn, D-South Carolina]

Greg Jaczko [Science Policy Advisor, Senator Harry Reid, D-Nevada]

Michal Freedhoff [Senior Policy Associate, Rep. Ed Markey, D-Massachusetts]

The session began with a short introduction to outline the NA-YGN mission and goals for attendees not familiar with the organization. Each speaker was then invited to make a short presentation on the political

aspects of the nuclear field. Ms. Svinicki and Ms. Kaarsberg emphasized the need for nuclear professionals to be engaged in the political debate and to make readily available information that supports our initiatives. Ms. Dash summarized the need for and the methods necessary to attract and retain talented young people in the nuclear

field. These presentations were generally well received as the opinions that were expressed meshed quite well with those of the audience.

The session became spicier while Mr. Jaczko and Ms. Freedhoff spoke. Using a rather ambiguous graph excerpted from the pages of a DOE Yucca Mountain document, Mr. Jaczko asserted that the waste disposal issue is not being resolved using sound science. Ms. Freedhoff began by

Discussion Heats Up at NA-YGN Sponsored ANS Session

stating that, contrary to media interpretation, Representative Markey is not anti-nuclear, but rather wants to make the nuclear industry "safe and secure." She clarified the reasons for his guarded stance on the Price-Anderson Act renewal and

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Women's race winner Naomi Matthews is off to a great start.

Of Horses and Circles

Never mind the meteor shower lighting up the DC sky that Tuesday morning November 19. We had our own excitement on the ground, when a sparkling bunch of 22 runners took off in the dark for the NA YGN fun run. Not just any type of fun – 6 miles of running to the gilded sculptures at Arlington Memorial Bridge – aka “the horse’s ass” – and back for fun, with the last half mile uphill!

Hans Gougar (INEEL) and **Michele Wolfe** (Guest) came in first for the men’s and women’s race, respectively, and were disqualified for trying too hard. In this 43rd race organized at an ANS meeting, traditions die hard.

As the habitual reader of the fun run article might have figured out by now, the winners are chosen arbitrarily by the Race Director (bribes of any kind are always welcome). The results of the race are then manipulated to match the desired outcome. The Race Director is pleased to announce that it didn’t even take cheating this time. A simple calculation of the difference between the estimated and the actual arrival time did the job. After manipulating the results, the winners are

Naomi Matthews (BNFL Westinghouse) for the women’s race and **Bill Corcoran** (NSRC Corp) for the men’s race.

Bill Corcoran kept running circles at the finish line until he reached his estimated arrival time. This successful attempt in circumventing the system – especially in a place like Washington, DC – deserves a first place.

Naomi Matthews has been named winner of the women’s race. She managed to make it back to the hotel after getting lost during the run because she confused the Washington Monument with the horse’s ass. (!) Mistakes of that caliber make her a worthy winner of the NA YGN fun run, even if just to celebrate the fact that she did return to the hotel that same morning.

Congratulations to you both!

We hope to see you there at the next “Solve the Rebus” NA YGN fun run in sunny San Diego, Tuesday morning June 3, 6:00 AM, hotel lobby. No prizes, no money, just fun!

By Emmy Roos

NRC Commissioner Dr. Nils Diaz Speaks at Virginia Section Meeting

On October 8th, 2002, the Virginia Section of NA-YGN was honored to have NRC Commissioner Dr. Nils Diaz speak at a dinner meeting held at the Glen Allen Cultural Arts Center. Dr. Diaz talked about relevant issues, such as nuclear power plant security and the potential for new nuclear power plants from an NRC Commissioner’s perspective. Commissioner Diaz has been a strong advocate for streamlining the nuclear regulatory framework with a strong focus on safety, taking into account that the regulatory requirements for the construction of new plants are vastly different today than they were during the seventies and early eighties. During his talk, Dr. Diaz stressed that if the regulations are not beneficial, then they are detrimental. The opportunity to hear Commissioner Diaz’s perspective as an NRC Commissioner, and taking into account his rich and diverse experience in nuclear science and technology was certainly a treat for the Virginia Section members.

The October meeting marked the first of a series of dinner meetings and lectures for the Virginia Section of NA-YGN. One of the missions of our organization is to facilitate the exchange of knowledge between the nuclear pioneers and young nuclear professionals. The knowledge and insight Commissioner Diaz shared with the Virginia Section members made our first dinner meeting a huge success.

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NA-YGN ADMINISTRATA

Mark Your Calendars!

Mark your calendars for NA-YGN's third annual Professional Development Communications Workshop May 18 and 19 at the Fairmont Miramar Hotel in Santa Monica, CA (www.fairmont.com). To make the Workshop widely accessible to industry leaders, it is held in conjunction with the Nuclear Energy Institute's Nuclear Energy Assembly (May 19-21). The workshop is designed for young professionals who regularly work with nuclear issues in any capacity and have the desire to improve their communication skills. Stay posted for more information as the workshop draws nearer!

For more details, contact Sherry Reilly at slr@nei.org.

As we've watched membership expand to more than 650 members in the past 3 years, the NA-YGN Core has recognized that some adjustments will allow us to better

over 35. Since the intent of the membership age criteria was not to alienate these professionals, some changes are being made to the existing membership structure.

NA-YGN is changing to better meet your needs

serve the needs of young professionals in the nuclear field.

When established, NA-YGN membership was defined as individuals age 35 and under working throughout the fields of nuclear science & technology. NA-YGN leadership recognizes that some individuals may not have entered into the nuclear field fresh out of college, or may have taken a non-traditional path to their current position, placing them in a "young professional" type of scenario in regard to experience, despite the fact that they may be

The redefined NA-YGN membership definitions are as such:

Young Generation Member:
NA-YGN member < 10 yrs OR under 36 years of age

Alumni Member:
NA-YGN member > 10 yrs AND 36+ years of age

For complete details about how this change might affect you, visit www.na-ygn.org/aboutus/membership.shtml or send email to communications@na-ygn.org.

2003 ELECTIONS

Do you want to get more involved in NA-YGN? Your opportunity is here! Nominations for the following positions are now being collected:

Vice President
Public Information Chair
Communications Chair
Canadian Affairs Chair
US Affairs Chair



Note: Due to the small number of members from Mexico, the Mexican Affairs Chair will currently remain an appointed position and boosting Mexican membership will be a primary goal for this Chair position.

Nominations are due January 31, 2003 to election@na-ygn.org. The election will be held electronically during the week of February 12-19, 2003. Details on the positions and how to submit a nomination can be found at www.na-ygn.org/election.

ANS Session continued from page 1

expanded on the need for better security at nuclear power plants.

As one might expect, the audience had numerous questions for these panelists. For the most part, attendees demonstrated respect and genuine interest in the views of all the speakers. However, a few outspoken ANS members began to badger the those who were less supportive of the nuclear industry. Fortunately, the rest of the audience was supportive when those few were admonished.

After the session, NA-YGN members received a lot of positive feedback. All in all, the event was a success and increased the visibility of NA-YGN.

By Lisa Shell, Dominion

The New Brunswick branch of the NA-YGN has recently been launched and is proud to be the first official branch in Canada! Our membership consists of employees from the Point Lepreau CANDU-6 reactor, which is located within 40 km of Saint John, and students and professionals from the University of New Brunswick (UNB) in Fredericton, New Brunswick's capital city. UNB has an extensive nuclear engineering option program as part of the chemical engineering curriculum. Chemical Engineering at UNB also hosts a world class research program focused on reactor water chemistry and corrosion of reactor materials where the majority of the R&D is performed by graduate students who use the work as the basis of their Masters and Ph.D. theses.

The inaugural event for the New Brunswick branch of the NA-YGN took place on September 26, 2002 at the Sheraton hotel in Fredericton. Mr. Robert Van Adel, the president of Atomic Energy of Canada Limited (AECL) was the guest speaker at a business dinner hosted by the



New Brunswick Branch NA-YGN members meet AECL President Robert Van Adel. Front: Willy Cook, Savalax Supa-Amornkul, Nui Setthanan, Toey Silpsrikul, Diane Spencer, Mitti Thitakamol, Joy Gray, Janit Pongpuak. Back: Mark McIntyre, Robert Van Adel, Charles Doucet, Margaret Loughrey.

currently developing and plans to have market-ready by 2005/2006. The ACR will be a hybrid reactor, taking advantage of the proven CANDU reactor technology but also incorporating some of the best features of PWRs. The primary design aspects of the ACR will be a change from natural uranium fuel to slightly enriched uranium (about 2% U235). This key design change will allow the use of light water as the primary coolant instead of heavy water (heavy water will still be used as the moderator) creating a smaller, more compact core. This design change alone will reduce the heavy water volume (one of the more costly aspects of the CANDU reactor) by about 2/3rds. AECL's goal is to have a reactor available for markets in the USA, UK and overseas that is cost competitive with other advanced reactor designs as well as the new generation of gas-fired power plants, achieving a cost of ~ US\$1000 per MW installed capacity.

NA-YGN membership in New Brunswick is continuing to grow and planning for activities in 2003 is underway. The first event, scheduled for late January, will be an update on the Point Lepreau refurbishment project and how young professionals in the industry can take advantage of the new opportunities that will present themselves. If anyone would like more information about our branch or about CANDU reactor technology in general, including the progress of ACR design, please contact me at wcook@unb.ca.

By Willy Cook

CANDU Technology – The Old and the New

Atlantic Resource Industries Association (ARIA). Twelve NA-YGN members attended the dinner, including six professionals under sponsorship from the Canadian Nuclear Society (CNS) and six students sponsored by AECL; both organizations are graciously thanked for their support.

Mr. Van Adel addressed the economics of the proposed refurbishment of the 20-year old Point Lepreau generating station, which supplies about 30% of the province's electricity. The refurbishment would include a complete re-tubing of the reactor. CANDU reactors have a unique design feature in that the core is comprised of horizontal fuel channels that separate the primary coolant from the heavy water moderator contained in the calandria vessel. Refurbishment would involve replacing all 380 fuel channels in the reactor core as well as the individual feeder pipes that feed coolant to each channel from headers at the inlet and outlet of the steam generators.

Mr. Van Adel continued his presentation with a description of the new Advanced CANDU Reactor (ACR) that AECL is

It was a gorgeous fall morning, with a bright sun shining through the autumn colors in the trees, when the “Nuclear Show” arrived at Sweet Briar College (Virginia). This was the first time this troupe was in town, and the liberal arts all-women college did not know what to expect. A curious crowd of more than 35 students and professors gathered expectantly at the “Introduction to Environmental Studies” class where the first performance was going to take place... and they were not disappointed!

The troupe, which is part of the Virginia section of the NA-YGN, was formed by four performers: Larna Brown and Stéphanie Antoine from Framatome ANP in Lynchburg and

the performers to come out and receive an ovation several times. It was incredible!!!

In summary, the “Nuclear Show” is perhaps the single most delicious nuclear show in classrooms around North America. It is a high-voltage, intelligent blend of facts and fun, that leaves you uplifted, enraptured and feeling like you understand the “other half” of the nuclear science and technology story. Don’t miss it if you can find tickets at a location near you.

By Sama Bilbao y León

The Nuclear Show Arrives at Sweet Briar College

Todd Flowers and Sama Bilbao y León from Dominion Generation in Richmond. After a colorful opening number in which Larna introduced all the members of the company, Stéphanie took the stage. She then performed her world famous “Geiger Counter Dance” in which she discussed the basics about radiation and radiation safety and demonstrated how a Geiger Counter works. One of the more dramatic parts of the choreography was when she demonstrated that radioactivity is a natural phenomena, and used a number of “everyday” objects (even some provided by the audience) to illustrate her point. Then, Todd and Sama took the stage with a very dynamic duet entitled “Nuclear Power: A Safe and Sustainable Energy Source.” This composition, whose original intent was to explain how a nuclear power plant produces electricity, has evolved through the years beyond this narrow scope and was able to transmit much more to the audience: environmental impact, full cycle emissions, risk perception, waste management... For the grand finale the four performers gathered their many talents and answered the many questions the audience posed. The audience was ecstatic, and asked questions and more questions, forcing



Employees from Framatome ANP, Inc. and Dominion Generation discuss nuclear power with students at Sweet Briar College.



- ◆ Third Prize (\$50 Savings Bond, NA-YGN T-shirt & pin)
Lindsey Bennett, 9 years old
 Elroy Elementary
 Pittsburgh, Pennsylvania
 4th grade

In addition, the library of each winner's school will receive a collection of books and reference materials on Nuclear Science and Technology. The award ceremonies will be held in January 2003.

NA-YGN wants to thank the Wisconsin Institute of Nuclear Systems for sponsoring the Third Annual NA-YGN Drawing Contest. We also want to thank all the members of the jury for their help and for going through a large number of drawings to pick the winner. Finally, we want to thank all the NA-YGN members that supported this effort by visiting the schools and talking to the kids and their teachers about Nuclear Science and Technology. In particular, we wish to single out the remarkable effort made by the members of

Thousands of Drawings Submitted to the 4th Annual Drawing Contest

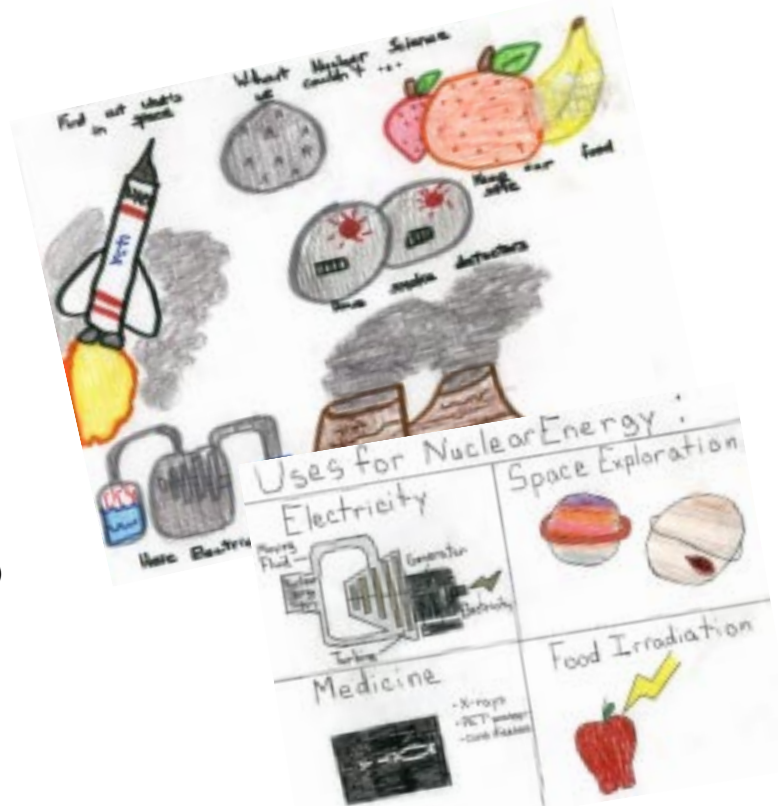
The drawings submitted to the Fourth Annual NA-YGN Drawing Contest were displayed during the 2002 ANS Winter Meeting in Washington D.C. from November 16th – 21st. This year we had over 2,100 drawings (yes! two thousand!) from more than 30 elementary schools in Alabama, Georgia, Pennsylvania and South Carolina. Due to limited display area and jury time, a pre-selection was performed and 350 of the initial 2,100 drawings were selected. The jury, formed by Mr. Lloyd Wright (on behalf of ANS President Harold Ray), Mr. Larry Foulke (ANS vice-president), Mr. Ben Rouben (Canadian Nuclear Society), Mr. Adam McLean (Canadian Nuclear Society), Ms. Angie Howard (Nuclear Energy Institute), Mr. Edmundo del Valle (Mexican Nuclear Society) and Prof. Jake Blanchard (Wisconsin Institute of Nuclear Systems), had a hard time choosing the three winners because there were too many cool drawings. After long deliberations, the winners are:

- ◆ First Prize (\$100 Savings Bond, NA-YGN T-shirt & pin)
Diana Fournier, 10 years old
 Myrtle School
 Pittsburgh, Pennsylvania
 Teacher: Mrs. Macuga, 5th grade
- ◆ Second Prize (\$50 Savings Bond, NA-YGN T-shirt & pin)
Louis Veitz, 9 years old
 Cub Scout, Pack 293, Den 4
 Pittsburgh, Pennsylvania
 4th grade

the Westinghouse section of the NA-YGN in Monroeville (PA), who contacted more than 30 schools and collected about 2,000 drawings.

Thank you!

By Sama Bilbao y León, NA-YGN Public Information Chair



GO NUKE!



Southern Company Reaches Out to the Local Community

YGN Helps Louie Get the Word Out on Electrical Safety

Tracie Graves, Southern Nuclear/Plant Farley, recently accompanied Louie the Lightning Bug to the 59th National Peanut Festival's Special Citizen's Day. The National Peanut Festival is a nine-day celebration of the peanut held in Dothan, Alabama, the Peanut Capitol of the World. The Dothan festival is the nation's largest peanut festival and includes a variety of competitions, a parade, a fair with mid-way rides, and sports tournaments. On Special Citizen's Day, the festival opens only to mentally and physically handicapped individuals, giving them an opportunity to participate in events organized especially for them. Louie the Lightning Bug provides educational and entertaining programs reminding everyone to play it safe around electricity. Louie and Tracie handed out coloring books and stickers and reminded the special citizens of various electrical safety practices. About 800 mentally and physically handicapped adults and children from Alabama, Florida, and Georgia attended the event.

Get your buzzers ready...

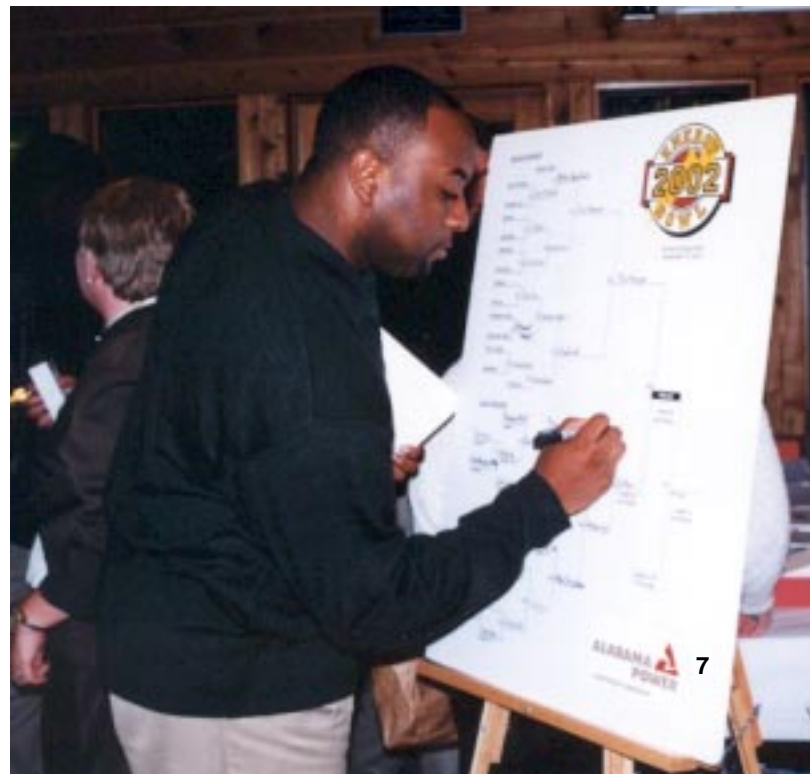
Marcus Conner, Southern Nuclear/Plant Farley, recently supported Alabama Power Company's Energy Bowl competition in Dothan, Alabama. Energy Bowl is a quiz-bowl type competition for high school students. Questions for the competition focus on all types of energy use and consumption. Alabama Power sponsors five regional competitions, and regional winners compete at a state bowl. Students who win competitions at the state level receive shares of Southern Company (Alabama Power's parent company) stock.

In addition to tallying and recording team scores, Marcus also discussed engineering and nuclear career opportunities with participants during breaks.

By Elizabeth Weatherford

Marcus Conner prepares the results of the Energy Bowl competition.

Above right: Energy Bowl competitors listen intently as Marcus Conner shares the exciting applications of nuclear technology.



EVENTS EVENTS EVENTS

Deadlines

Jan. 31, 2003 Nominations for 2003 NA-YGN Election. See www.na-ygn.org/election for details.

National & International Events

Feb. 1-2, 2003 *Workshop* - Space Nuclear Power and Propulsion Systems Technology: Enabling Future Planetary Missions. Albuquerque, NM. www.unm.edu/~isnps/staif

Feb. 2-6, 2003 Space Technologies and Applications International Forum (STAIF-2003). Albuquerque, NM. www.unm.edu/~isnps/staif

Feb. 12-19, 2003 Electronic Election for 2003 NA-YGN Officers. See www.na-ygn.org/election.

March 16-19, 2003 TopFuel 2003. Wuerzburg, Germany. Sponsored by the American and European Nuclear Societies. www.topfuel2003.de

April 2-5, 2003 American Nuclear Society Student Conference. Hosted by the UC-Berkeley ANS student chapter. Berkeley, CA. www.nuc.berkeley.edu/ans/conf

May 4-7, 2003 International Congress on Advanced Nuclear Power Plants (ICAPP). Cordoba, Spain. www.ans.org/goto/icapp03

May 18-19, 2003 NA-YGN Professional Development Workshop at the Nuclear Energy Assembly. Santa Monica, CA. For more info, contact: Sherry Reilly slr@nei.org

May 19-21, 2003 Nuclear Energy Assembly. Santa Monica, CA. Sponsored by the Nuclear Energy Institute. www.nei.org

Get Noticed!

Upcoming events and deadlines that you would like to be included in the *Calendar of Events* can be submitted at any time for posting on the web. Include the date, location, title of the event, and the event host or sponsor in an email to gonuke@na-ygn.org.

June 1-5, 2003 ANS Annual Meeting. San Diego, CA. www.ans.org

July 20-24, 2003 Health Physics Society Annual Meeting. San Diego, CA. www.hps.org

Aug. 10-14, 2003 American Association of Physicists in Medicine Annual Meeting. San Diego, CA. www.aapm.org

Sept. 15-19, 2003 International Conference on Global Environment and Advanced Nuclear Power Plants (GENES4/ANP2003). Sponsored by Atomic Energy Society of Japan (AESJ) the American Nuclear Society. Kyoto, JAPAN. <http://genes4-anp2003.nuclear.jp>

Local Events

Feb. 8, 2003 2003 Science Teacher Workshop: "Understanding Nuclear Radiation". Sponsored by VA Chapter HPS, VA Section ANS, NA-YGN. Lynchburg, VA. http://local.ans.org/virginia/public_education.html



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