



Pleasant Prairie Power Plant Tour

Written by Wendy Landwehr

SWE held a joint meeting with American Concrete Institute (ACI) and American Society of Civil Engineers (ASCE) on Thursday November 13. This meeting included a very interesting tour of the Pleasant Prairie Power Plant (P4), located near Kenosha, WI. This is a very modern coal burning power plant built in the early 80's owned by We Energies.

Two SWE Wisconsin members, Bryna Goeckner and Kay Starkey, and one SWE-CRS member, the author, and her husband attended this meeting with about 80 ACI and ASCE members. Bryna happens to work at P4. First we were shown a short overview video that previewed things we saw on the tour. We were given hard hats, protective eyewear and earplugs to wear and boarded buses to view the power plant from the outside. We saw the Coal Car dumper, Coal storage area, Conveyers, Ash Reburn Silo and concrete roads made with a fly ash additive. Then we took the walking tour of the interior of the plant where we saw pulverized coal on conveyers, two boilers which create high pressure steam that is directed to two turbines. The turbines drive the two electric generators. While we were eating our supper, two speakers (one of them Bryna) talked about the fly ash and how it is being recycled and used as an additive for concrete.

Some of the cool things we learned are:

- This plant is Wisconsin's largest coal fired power plant producing 1,210,000 kilowatts of electricity, which is 15 percent of the states electricity. It is rated among the lowest cost producers of electricity in the nation.
- The plant receives 8 trainloads of low sulfur coal a week containing 100 cars each
- We Energies owns the cars and pays to have them transported back and forth to Gillette, Wyoming. The cars are made of aluminum which allows more coal to be put in each car and lowers the transportation cost from the older steel cars.
- Pulverized coal is dropped into the furnace and ignites in mid air. Because the coal is pulverized, most of it burns and a small amount of waste is produced. The waste is called fly and bottom ash.
- All of the ash is recycled and sold for use as an additive for concrete, or for use as construction fill or roadbed base.
- An ash recovery program has been implemented. Ash from years ago is reclaimed from landfills in the area. It is then pulverized and reburned with the coal.

Altogether this was a very worthwhile and interesting event.

West Suburbs Networking Event

Written by Mayling Wong

On January 15th, seven women gathered in a Naperville home for the January West suburbs networking night. Munching on pizza and oatmeal cookies, the topic of conversation flowed from funny stories on the job to the Iraq war to knitting and making lace to the Kris Kringle market to upcoming SWE-CRS events. One suggestion that came out of the conversation was having more local networking events, such as on a quarterly basis. This way women engineers can come to know other women engineers who work and live nearby. So, keep your eyes open for an upcoming West Suburbs Networking Event in April!

president's letter

Mayling Wong, SWE-CRS President

Happy New Year, Chicago Regional Section! This edition's column will highlight some of the activities taking place in and around CRS in the next couple months. I will also take some space to highlight Engineers Week coming up at the end of February. For many people, January and February usually means a quieter time after the busy holiday season. For SWE-CRS, these months mean planning and attending many activities as we dive into the second half of the SWE fiscal year. As I write this, the January Networking Events are taking place throughout the section. The events are casual gatherings for people to visit and network in their local geographic area, taking place in a restaurant or at someone's home. It is a great time to meet new people and catch up with old friends in a casual environment.

On February 6-8, the SWE Student Section at the University of Wisconsin Madison will host the Region H Conference. The students have planned a full weekend that includes seminars for both students and professionals, local tours, a career fair, and a banquet. For more information, check out the conference website: www.cae.wisc.edu/~swe/Regionals2004/index.html

The February SWE-CRS program is a seminar given by a speaker from the FBI who will discuss Industrial Espionage. The program will take place on February 10 at the corporate headquarters of Baxter. The details can be found on page six of this newsletter.

Engineers Week takes place on February 22-28. This is the week when engineers and their accomplishments are highlighted in the public eye. Before I go on about Engineers Week, let me recount one person's view of engineers that I came across recently. My husband and I were on vacation last fall and happened to dine in a restaurant where we shared our table with two other tourists. They were sisters who were enjoying a week-long vacation away from their husbands and children. During the course of conversation, the question of what we did in our jobs came up. When I answered that I am a mechanical engineer, one of the women looked surprised and responded, "You are an engineer? But you look too young to be an engineer!" It turned out that their father is a retired engineer, and it was clear that their perception of engineers was someone like their father: an older male.

In contrast to the perception of engineers by our traveling friends, the National Engineers Week website publicizes the New Faces in Engineering, a group of young engineers recog-

(Continued on page 4)

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Engineers Week 2004

Celebrating Anniversaries in Engineering

Join Us on Saturday, February 28
Engineers Week Expo
12:30-5:00 p.m.

Featuring:
Engineering Innovations in History
Hands - On Activities for One and All
Enlightening Presentations
Door Prizes and More!

Admission is Free and Open to the Public!

All Activities At:

Center for Professional Development
Illinois Institute of Technology
201 East Loop Road, Wheaton IL

For additional information, contact:
Barbara Kozl phone: (630) 682-6040
email: kozi@iit.edu

For More Information:

www.rice.iit.edu/engineersweek/

ENGINEERING

1971



COMPUTERS

1963



SPACE

1875



CARS

1752



ELECTRICITY

1800



BRIDGES

president's letter (cont.)

(Continued from page 2)

nized by their professional societies (including SWE) for their accomplishments. Check out www.eweek.org and click on "New Faces in Engineering." Indeed, these young women and men are working on exciting projects that can inspire the next generation to work towards becoming engineers. You too can help make a difference in the engineering profession in addition to the work that you do. The National Engineers Week website has a great list titled "50 Ways One Engineer Can Make a Difference" (www.eweek.org/site/Engineers/50ways.shtml). Would you like to join SWE-CRS in celebrating Engineers Week? Join us at the DuPage Engineers Week event on February 28 (see details later in this newsletter or the event website www.rice.iit.edu/engineersweek). You can check out other fun activities in the Chicago area by checking the website www.chicagolandengineersweek.org



Of course, there are always opportunities to help advertise engineering to a child beyond Engineers Week. The Career Guidance committee will run our annual Essay Contest, where we will need judges to help read the essays written by 4th, 6th, and 8th graders. A robotics competition run by US First (www.usfirst.org) will take place on March 25-27 at Northwestern University. Check out their website on how to volunteer. SWE-CRS will run a large Girl Scout Badge Workshop in Joliet on April 3. Keep an eye out for SWE-CRS opportunities this spring when science fairs take place at middle schools and judges will be needed. An ongoing program that SWE members participate in is GEM-SET, an online mentoring program. This is an easy way that requires little time to answer questions that girls in 7th-12th grade have about science, engineering, and technology. Check out their website for information and to sign up: www.gem-set.org These are only a few ways to volunteer to work with children and show them what engineering is about from your perspective. If you do choose to give your time, then I hope you enjoy it as much as the children do!

Lake Forest MBA - Open House

The Lake Forest School of Management invites members of the Society of Women Engineers, Chicago Regional Section to upcoming open houses for the MBA program.

January open houses will take place at each of the school's campuses: Chicago, Schaumburg, and Lake Forest. Each event gives prospective students the opportunity to visit actual MBA classes in session as well as the chance to speak with admissions counselors regarding the program and the admissions process. More information about the event is listed online: www.lakeforestMBA.edu/Join_us_for_an_event

SEAOI Presents The State of the Practice of Façade Inspections

ABOUT THE PROGRAM:

SEAOI (Structural Engineers Association of Illinois) will hold a dinner meeting on Tuesday, February 3, 2004. The SEAOI dinner meeting will feature a presentation by Jon Boyd of Klein & Hoffman, Inc. about the state of the practice of façade inspections.

ASTM Standard E2270-03e "Standard Practice for Periodic Inspection of Building Facades for Unsafe Conditions" is a new standard developed to combine the collective experience and knowledge of many forensic architectural and engineering firms, industry associations, material manufacturers, public and private institutional facility owners and building and specialty contractors.

Mr. Boyd is a member of the ASTM Subcommittee E06.55 that prepared the new standard for facade inspections. This standard is intended for adoption by model building codes, local municipalities, or private owners of multiple buildings. The availability of this standard will make it possible for many cities that do not now have appropriate facade inspection laws on the books to adopt one, and cities with existing laws may wish conform to the new ASTM standard. Mr. Boyd's presentation will discuss the development of the standard and outline how it can be used to create uniformity in the inspection of exterior facades.

WHO SHOULD ATTEND:

This program should be of interest to all members of the construction industry, including architects, engineers, contractors, material suppliers as well as interested Chicagoans, wishing to gain a basic understanding of the new façade inspections standards. SEAOI dinner meetings are open to the public.

THE ARRANGEMENTS:

The dinner will be held at the 410 Club located in the Wrigley Building at 410 North Michigan Ave., Chicago. Free parking is available behind the Wrigley Building on Rush Street, between Hubbard and Illinois Streets after 5:00 p.m. A cash bar will open at 5:15 p.m. and dinner will be served at 6:00 p.m. The program is expected to begin at 7:00 p.m.

RESERVATIONS REQUIRED:

The cost of the dinner is \$35 for SEAOI members and \$40 for non-members. Individuals who wish to attend this function should contact SEAOI Executive Secretary, Donna Childs at (312) 372-4198, by Friday January 30, 2004.



Join the Society of Women Engineers - Chicago Regional Section for their annual Professional Development Conference. The conference, **Explore New Horizons... Rise to Your Full Potential** will take place on March 20 at Abbott Labs in Abbott Park, Illinois. The PD Conference will be a daylong event featuring a keynote address and a series of workshops in personal, professional and technical development; each designed to allow you to explore new horizons for personal and professional growth.

This year we are thrilled to have Missy Cummings as our keynote speaker. Missy received her B.S. in Mathematics from the United States Naval Academy in 1988, her M.S. in Space Systems Engineering from the Naval Postgraduate School in 1994, and her Ph. D. in Systems Engineering from the University of Virginia in 2003.

A naval officer and military pilot from 1988-1999, she was one of the Navy's first female fighter pilots. She is currently a Boeing Assistant Professor in the Aeronautics & Astronautics Department at the Massachusetts Institute of Technology.

Please look for more information in the upcoming months in this newsletter, on our website (www.swe.org/chicago) and by email. If you would like more information, please contact Amy Theis at Theis@Fauske.com or Rebecca Miller at R.Miller@ngc.com.

SWE Scholarships

Thinking about going back to school for another degree, a PhD or an MBA? Check out the fantastic scholarship programs at SWE that can make your aspiration a reality.

New Scholarships this year:

Clare Booth Luce Program - This program, which promotes the advancement of American women through higher education in the sciences, engineering and mathematics, is sponsoring a \$10,000 fellowship for graduate study with a preference for those expressing a career interest in academia.

Bentley/SWE Graduate Merit Scholarship - An annual half-to-full tuition scholarship will be awarded to a SWE member pursuing a full-time graduate business study at Bentley (MBA, MS, Dual Degree). At Bentley's McCallum Graduate School of Business, focus is placed on the academic success and support of African American, Latino, Asian and Native American students.

Additional SWE scholarships are available, for more information check out www.swe.org/scholarships.

SWE-CRS college scholarship applications are due by March 15, 2004, information can be obtained at www.swe.org/chicago.

February SWE Program Industrial and Economic Espionage

Economics may not come to mind when some people think of espionage, but industrial spying has a large effect on our country and our economy. Whether we realize it or not, as engineers we routinely work with information that others may be trying to obtain. At our February SWE event, you'll have the opportunity to hear from Anne Brinkopf, an agent with the FBI and learn a little bit about how economic espionage happens and what type of information is a subject of spying.

DATE: February 10, 2004
TIME: 6:00 pm – Networking
6:30 pm – Program
LOCATION: Baxter Corporate Headquarters, Deerfield, IL
RSVP by: February 6, 2004
COST: FREE

Directions:

From the north: Take I-94 south to the Lake Cook Road exit. Turn right (west) and go to the first light, Saunders Road. Turn right on Saunders. Turn right on One Baxter Parkway and follow signs to visitor parking.

From the south: Take either I-94 or I-294 north. After I-94 & I-294 merge, exit on Lake Cook Road. Turn left (west) and go to the first light, Saunders Road. Turn right on Saunders. Turn right on One Baxter Parkway and follow signs to visitor parking. (NOTE: the Lake Cook Road exit has a 50 cent toll, exact change ONLY when coming from the south.)



National Design Engineering Show and Conference

The National Design Engineering Show and Conference is taking place February 23-26, 2004 at McCormick Place. Details and registration information can be found at www.manufacturingweek.com. Two of the SWE-CRS members are giving talks at the Conference:

Tuesday, February 24, 2004 11:00 am - 11:50 am "How Common Sense Benefits in Facilities Management" Anne Lucietto, FESS Operations/Engineering - Fermi National Accelerator Laboratory. Problems arise in facilities management on a regular basis. Solving those problems is often dependent upon the resolution teams ability to eliminate the symptoms and find the problem. That is not always as easy as one might believe! A few problems will be shared as well as the innovative solutions that addressed the root cause resulting in the ultimate elimination of the issue.

Wednesday, February 25, 2004 12:00 pm - 12:50 pm "Is The Engineering World Ready for Women? Sounds Odd, But Not Every Engineering Field is Well-Populated with Female Engineers" Debra P. Evans, Program Manager, Baxter Healthcare Systems. Join us for a discussion on changing the gender image of engineering and developing professional support for academic programs in order to promote women in the engineering pipeline, from grade school to Ph.D. and from entering engineer to CEO.

Family Fun at the Puppet Show in December

Written by Karen Preston

Fun was the key issue at the Puppet Show event on December 6th, 2003. The Chicago Regional Section of SWE had a really awesome time networking and enjoying the performance of Hansel and Gretel. A lot of children (budding mechanical engineers) witnessed the innovative stage performance of the "Opera In Focus" troop. Bill Fosser, the Creator and Producer of this very interesting and unusual puppet show for young children, gave a great tour displaying behind the scenes rack and pinion gearing system, which moved the string-less puppets in all kinds of operatic positions. The children were amazed to find out that the performance used four witches. In addition to the performance and Mr. Fosser's tour, the children enjoyed his wonderful gingerbread cookies. If you missed the performance this year - don't fuss! Keep informed by reading the Windy City Wire or by using the website www.swe.org and stay in touch by appearing at all the SWE events. We look forward to seeing *more new faces!*

Volunteer Opportunities

SWE-CRS will run the ScavEngineer activity at the DuPage Engineers Week event on Saturday, February 28 from 12:30pm - 5:00pm. The annual E-Week event at IIT-Rice Campus in Wheaton is a place for kids of all ages to learn about different facets of engineering in a fun way. SWE-CRS needs volunteers to run the Scav-Engineer activity, which helps kids to interact with engineers of different kinds at the event. Volunteers can help for 2 hours at a time. If you are interested in volunteering, please email Mayling Wong at swechicago@yahoo.com.

We are looking for volunteers to help out with the Engineers Week Booth at the IIT Rice Campus in Wheaton. It requires a couple of meetings at the campus and then the event itself on Feb. 22. If you can help out or you have a question please contact Anne Lucietto at anne.lucietto@swe.org.

The family issues committee needs some volunteers to either stuff envelopes or call companies to get e-mail address. If you would like to help, let Karen know at swechicago@yahoo.com.

The Trailways Girl Scout Council in conjunction with SWE-CRS will be hosting a Badge Workshop at Joliet Junior College on April 3, 2004 between 9 am and 3 pm. As many volunteers as sign up are welcome to help at this activity! Lunch is FREE and all of the supplies will be there waiting for you. If you can come or you have a question please contact Anne Lucietto at anne.lucietto@swe.org.



March Planning Meeting

Date: Saturday, March 6th, 2004
9:30 ~ 11:30 AM
Place: Rebecca Miller's house in Streamwood
RSVP: Required by Thursday, March 4th.
RSVP via e-mail (swechicago@yahoo.com) to receive directions.

During the planning meeting, we'll discuss the Chicago Regional Section's financial status, upcoming events, committee activities, etc.. All officers, representatives and committee chairs are encouraged to attend, and all members are welcome.



New Members Join SWE CRS

Please welcome the following members to the section, who have either newly joined, upgraded from student membership, or moved into the section.

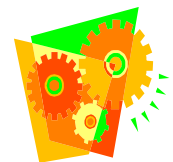
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Valerie Beth Fine	Dayna Lynn Roth
Catherine M. Geiger	Reena V. Shah
Shelly Havlovick	Constance Slaboch
Marla L. Hudson	Samantha Stovall
Sarah Kim	Michelle K. Walsh
Athena Kotsanis	Gretchen L. Wendt



All members are encouraged to submit articles or announcements that may be of interest to our membership. The next article deadline is

February 27th

Send articles to:
Kamelio@ctlgroup.com
SWE CRS Newsletter Editor





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Printing and mailing of this newsletter are generously supported by:

NORTHROP GRUMMAN