



Philadelphia Section Newsletter

Society of Women Engineers

June 2001

Vol FY01.8

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Proposed Officers for FY 02
- President
Lisa Colosimo
- Vice President
Heather Bernardin
- Section Representatives
(we will have two for FY 02
because the Section now has
more than 100 voting members)
Maggie Schwartz
Susan Hougendobler
- Treasurer
Barbara Faust
- Secretary
Carole Stowell

Sub-Section Meetings

• Montco Sub-Section

Date: Tuesday, June 19, 2001
Time: 6:00 pm
Place: Bertucci's, Plymouth Meeting Mall
RSVP: Heather Bernardin by Monday, June 18
hbernardin@fcg.com or 610-989-3212

• South-Central PA Sub-Section

June or July social event at a Harrisburg Senators minor league baseball game (see page 4 for information on dates). Families are invited. Contact Catharine Miller, millercl@erdmananthony.com for more details.

Certificate of Merit Awards - 2001

At the time this newsletter was finalized, we had awarded 247 Certificates of Merit to high school students from 84 schools within the Philadelphia Section boundaries. Several schools requested a SWE Member to present the Certificates at a school awards assembly. Many thanks are extended to Marjon Parham, Marsha Bischel, Brenda Rian, Susan Best, Megan Kline, Jennifer Coriale, Mary Ann Skehan, Lisa Hutchings, and Barbara Faust for participating in the award presentations.

Golf Outing Postponed

The golf outing originally anticipated to be held in June at Woody's has been postponed until September. For more information, contact Megan Kline at 610-650-8101 or mkline@gfnet.com.

Philadelphia Section Elections

Ballots to elect Philadelphia Section Officers for the SWE Fiscal Year that begins on July 1st are enclosed in copies of the newsletters mailed to Section Members. Please take the time to vote and return your ballot. Efforts are in progress to draft and get approval of by-laws changes that will permit electronic voting in the future.

SWE National Conference

The **2001 SWE National Conference** will be held in Denver, CO on June 26-30. For updated program and hotel information, visit the conference web site, www.swe.org/SWE/Convention/den01/2001M.htm.

Note that there will be no National Conference in FY 02 (July 2001 - June 2002) because of changes in conference scheduling. However, there will be a Council of Section Representatives (CSR) meeting held, with a tentative date of March 9, 2002.

June Events

SWE Philadelphia FY 01 Calendar of Events

Date	Event	Location
June	Certificate of Merit Presentations	Various
June 12	Lehigh Valley Scholarship Banquet	Shephard Hills Country Club Wescosville
June 19	Montco Sub-Section Meeting	Bertucci's Plymouth Meeting Mall
June 21	DelMar Peninsula Section Meeting	Blue Rocks game
June	Election of New Officers	
June 26-30	National Conference	Denver, CO

Announcements

Lehigh Valley Scholarship Banquet

Shepherd Hills Country Club
 1160 South Krocks Road, Wescosville, PA

Date: Tuesday, June 12, 2001
 Speaker: Ms. Dina Manoway, Plant Manager
 Alburdis Facility & Municipal Division, Victaulic Co.
 Topic: Improving Your Chances for Promotion
 RSVP: Kathy Kinsey by June 7, 2001
 570-467-4482 or kinseyko@apci.com

Victaulic, a privately-owned manufacturer of mechanical piping products, was recently recognized as one of the 100 Best Places to Work in Pennsylvania. The company originated the grooved piping method in 1925 and the system is known worldwide as the fastest method for mechanically joining pipe.

DelMar Peninsula Section Meeting

Social at the Blue Rocks game
 Date: Thursday, June 21, 2001
 Cost: approx. \$8/ticket
 RSVP: Nora Lober
 nlober@duffnet.com

Women Pilots

Ken Libbey has written a new historical novel, *Vantage Points*, about a woman pilot who ferries planes for the Army in World War II. This novel was carefully researched for authenticity. Reviews are available on Amazon.com, Borders.com, or at <http://kenlibbey.home.mindspring.com>, the author's web site.

EIT Refresher Course

An EIT Refresher Course will begin on June 14, 2001 at Drexel. For more information, call Pat Gremmel at 215-895-2154.

Adjunct Faculty Openings at Drexel

The **College of Evening & Professional Studies at Drexel University** is currently accepting applications for part-time faculty in all engineering disciplines. Master's degree required, PhD preferred. Please send letter of application and resume, along with names, addresses, and phone numbers of three professional references to:

Dr. Raymond W. Campbell
 Senior Associate Dean
 College of Evening & Professional Studies
 3001 Market Street
 Philadelphia, PA 19104

National SWE Officers for FY 02

Congratulations to the newly-elected SWE Officers.

President-Elect: Rachel McQuillan
 Vice Presidents: Alma Martinez-Fallon,
 Ronna Robertson Frazier,
 Mabel Esteves
 Secretary: Violette Brown

Treasurer: Katherine Kent

May Meeting Review

Joint Meeting with AIChE - Glaxo-Smith Kline Pilot Plant Tour

by Maggie Schwartz

Members of the SWE-Philadelphia Section and the Delaware Valley Section of the American Institute of Chemical Engineers (AIChE) held a joint meeting on May 15th. The meeting consisted of a tour of the Glaxo-SmithKline Upper Providence Pilot Plant followed by dinner at the Gypsy Rose Restaurant in Collegeville and a lecture by Stephen Hall, PE, Director of Engineering and Technology for Burns&Roe, concerning a web-based project information system he developed to support construction of a 7000 sq ft chemical plant for the cosmetics industry.

The pilot-plant site, which was originally the property of Sterling Pharmaceutical, was purchased by SmithKline in 1996. Sterling had started to build a chemical plant but did not finish. It was the challenge of the new owners to use the existing structures (and add more as required) to create a pilot production plant. Tried-and-true production methods and design were to be used to the greatest extent possible while simultaneously controlling costs. The plant needed to meet good manufacturing standards, safety requirements, and environmental standards.

The resulting plant achieved these goals. This pilot production plant now produces clinical and pre-clinical compound supplies used in the search for new pharmaceuticals. An independent computer system monitors the plant and reports problems to identified personnel via personal pagers. Respondees can remotely log in via lap top computers to assess the problem and contact other employees, if needed, prior to returning to work.

Our tour group was a mixture of experts and novices in plant design and implementation. There were many questions and the responses helped to educate the entire group. The Upper Providence operation consists of: small-scale pilot plant (30 - 200 gallon reactors); two new-process modules (50 to 500 gallon reactors); a

new special reaction laboratory (30 - 200 gallon reactors); and a separate building for solvent storage. The plant produced 20 metric tons in 2000. The modular design of the original plant has a two-story processing wing with reactor charging and product control on the second floor and product isolation on the first floor. Eighteen reactors are located in five reactor modules: 12 glass-lined multi-purpose reactors (30 to 200 gallons) and six stainless steel reactors (50 and 100 gallons). All reactors are arranged in pairs, with each pair sharing a condenser. This design calls for one of the reactors to act as a receiver for the other. The overhead piping for the glass-lined reactors is teflon-lined steel; the condensers have tantalum tubes and shells. Each process module has control panels dedicated to a reactor system. Product drying, milling and final material storage is located in a separate wing attached to the first floor processing wing.

The lecture by Stephen Hall was quite interesting. The construction web site for the chemical plant design provided up-to-date documentation for each of the many contractors. Drawings could be updated and configuration-controlled on line. Drawings and parts lists were linked; catalog items were linked to supplier web sites. Job photos were posted each week to show progress. Schedules could be updated and coordinated in real time. Drawings could be down-loaded and printed, which reduced costs for mailing and printing. Data bases were maintained for responsibilities and contact information. The updated data bases facilitated greatly expedited and improved communication.

Many thanks to AIChE for arranging this interesting and educational experience. For more information about AIChE and the activities of the Delaware Valley Section, visit web site aiche-philadelphia.org/.

Certificate of Merit Winner - a Real Winner

background from *Lancaster Sunday News*, May 20, 2001

One of the SWE Certificates of Merit awarded at McCaskey High School in Lancaster on May 15th went to Marita Zguri, who graduated first in her class. Marita's parents gave up their home and their careers (her mother is an Albanian dentist of 23 years and her father is a mechanical engineer of 23 years) to move their family to Lancaster, PA in search of a better life. Although Marita had studied English as a second language with her aunt in Albania, she "didn't have practice enough to get through school (here)." When she arrived in Lancaster and started school as a junior, she "had to translate a lot of things from English to Albanian to understand them." The language got a bit easier in about three months with the help of her teachers and long hours of study. Marita has worked very

hard to achieve the many honors bestowed on her at graduation. She is truly a winner.

South Central PA Sub-Section News

by Marsha Bischel

Sub-Section Meeting

Six members of the **South Central PA Sub-Section** (Lancaster-Harrisburg-York area) met for dinner at Symposium's Restaurant in Lancaster on Thursday, May 10. Jennifer Gronwaldt, Director of the Thaddeus Stevens College of Technology Women's Center, described the college's Women's Center and outreach programs. Stevens Tech is a 2-year technical college in Lancaster; the school's mission is to serve underprivileged students from PA. Areas of study include architectural technology, automotive technologies, cabinetry, computer and network administration, electronics, HVAC, mechanical engineering technology, plumbing, and others (15 total degrees). While many graduates get jobs as technicians in a specific trade, a significant number choose to continue their education in a 4-year program.

Many of the women at Steven's are non-traditional students. Jen has established a mentoring program for these women, matching them with women professionals in their fields of study. Jen has also developed a program for middle-school girls to expose them to technical fields such as electronics, plumbing, etc. She is working to expand this program and is now working with local Girl Scout troops as well.

Since Stevens Tech is only a 2-year program granting AAS (Associate of Applied Science) degrees, the women enrolled there do not meet SWE's criteria for membership. However, the consensus among the members in our area is that we should support this program.

Anyone interested in learning more about these programs or becoming a mentor should contact Jen Gronwaldt at: gronwaldt@stevenstech.org or (717) 391-3599.

Future Activities:

The group is still trying to set a time for attending a **Harrisburg**

Container Design Project

For the past several years, seniors in the calculus class at Archbishop Ryan High School in Philadelphia have participated in a national award-winning project developed by their teacher, Sr. Alice Hess, IHM, to teach the students methods of problem-solving through an industrial engineering environment. In particular, the students apply derivatives to real-life applications in min-max situations. The team projects also introduce the students to the importance of sharing responsibility, group dynamics, effective use of resources, meeting deadlines, and articulating mathematics in oral and written form.

In this five-week project, students are to design a new type of practical container to be used for a specific product (e.g., popcorn, hot coffee, soda, cereal, transporting something, etc.). Each student team has to identify a need for the container, research and evaluate design options that include considerations of: at least three different container shapes; container surface area; and at least three additional design criteria such as cost, usability, aesthetics, liability, environmental impact, etc. Each student team presents the results of their design efforts, including summaries of their research and reasons for specific design choices, to an outside Review Board of about 30 professionals (engineers, vocational counselors, mathematics, science, and public-speaking teachers).

Senators game at City Island. Possible dates are:

Mon, June 25 vs Akron Aeros
(baseball cap night)
Tues, June 26 vs Reading Phillies
Wed, June 27 vs Reading Phillies
Thurs, June 28 vs Reading Phillies
Fri, June 29 vs Reading Phillies
Thurs, July 5 vs Erie Sea Wolves
Fri, July 6 vs Erie Sea Wolves

All Games start at 6:35 pm.

Forward your preferred date to Catharine Miller, millercl@erdmananthony.com.

A **plant tour** is planned for the **September meeting**. Suggestions include the Harley Davidson Plant in York and the Armstrong Floor Plant in Lancaster. A volunteer is needed to coordinate this tour. If you are interested, please contact Marsha Bishel, msbischel@armstrong.com, Catherine Miller, millercl@erdmananthony.com, or Jean Panos, rjimpanos@sprintmail.com.

SWE Philadelphia Section Newsletter
May 2001

Philadelphia SWE Members Vicki Brown and Barbara Faust served on the Review Board held on May 29th to evaluate this year's projects and provide direct interaction with the students concerning their projects.

SWE Philadelphia Section
c/o The Engineers' Club of Philadelphia
215 South 16th Street Suite 36
Philadelphia, PA 19102

ADDRESS CORRECTION REQUESTED

Visit our Web Site: <http://www.libertynet.org/sweps>
Contact us by E-mail: phila_info@swe.org

SWE Philadelphia Section
June 2001 Newsletter

Montco Sub-Section Meeting
Tuesday, June 19, 2001
Bertucci's in the Plymouth Meeting Mall
RSVP to Heather Bernardin by June 18, 2001

SWE National Conference
June 26-30, 2001
Denver, CO

Newsletter copying and distribution is underwritten by a grant from
Lockheed Martin Management and Data Systems.

Thank you!

**SWE Philadelphia Section Newsletter
May 2001**

School	Location	Date	Time	Presenter
Pottstown Sr. HS	Pottstown	Mon, May 7	6:30 pm	Marjon Parham
McCaskey HS	Lancaster	Tues, May 15	7:00 pm	Marsha Bischel
Avon Grove HS	West Grove	Thurs, May 17		
Pennsbury HS	Fairless Hills	Wed, May 23	7:00 pm	
Strath Haven HS	Wallingford	Wed, May 23	7:00 pm	
Abington HS	Abington	Wed, May 23	7:00 pm	Brenda Rian
Garden Spot HS	New Holland	Thurs, May 24	7:00 pm	Susan Best
Upper Darby HS	Drexel Hill	Thurs, May 29	7:00 pm	
Downingtown Sr HS	Exton	Wed, May 30	7:00 pm	Marjon
Nazareth Academy HS	NE Phila	Thurs, May 31	7:00 pm	
Great Valley HS	Malvern	May 31	7:30 am	Brenda Rian
Villa Joseph Marie HS	Holland	Thurs, May 31	9:30 am	
Pottsgrove HS	Pottstown	Tues, June 5	8:45 am	Megan Kline
Wissahickon HS	Ambler	Tues, June 5	7:00 pm	Jennifer Coriale
Abraham Lincoln HS	Philadelphia	Wed, June 6	7:00 pm	
William Tennent HS	Warminster	Wed, June 6	7:00 pm	Barb
Springfield Twnshp HS	Erdenheim	Mon, June 11	10:00 am	Barb
Sun Valley HS	Aston	Mon, June 11	6:30 pm	Mary Ann Skehan
William Bodine HS	Philadelphia	Mon, June 11	9:00 am	
Conestoga HS	Berwyn	Tues, June 12	7:00 pm	
Souderton Area HS	Souderton	Tues, June 12	7:00 pm	Barb
CB West HS	Doylestown	Thurs, June 14	6:45 pm	Lisa Hutchings

Philadelphia Section Election Ballot

Slate of Candidates for FY 02

President

Lisa Colosimo _____ Write-In _____

Vice President

Heather Bernardin _____ Write-In _____

Section Representatives (vote for 2)

Margaret Schwartz _____ Write-In _____

Susan Hougendobler _____ Write-In _____

Treasurer

Barbara Faust _____ Write-In _____

Secretary

Carole Stowell _____ Write-In _____

Unfortunately, we don't have any contested positions this year. As SWE by-laws require that the Section Officers be elected by the general membership, it is important that you vote.

Please mark your ballot, fold it, place in an envelope, and seal the envelope.

Sign the envelope on the back or above the return address (for member validation purposes).

Mail the signed envelope with the enclosed ballot to:

Jennifer Wetzel, Ballot Teller
501 North Easton Road
Willow Grove, PA 19090