Lehigh Valley Chapter
Pennsylvania Society of Professional Engineers
Lehigh, Northampton, Monroe and Carbon Counties
(Organized 1935)

Valley Engineer Newsletter
November, 2013

UPCOMING PROGRAMS

- December 12 – Holiday dinner, Allentown Brew Works
- January – Just Born?
- February – Engineer’s Week
- March – Dorney Park
- April – Lehigh Valley Health Network, joint event with GBC
- May – Banquet
- June – IronPigs tour followed by game

Lehigh Valley Chapter, Pennsylvania Society of Professional Engineers
Kevin T. Campbell, PE, LEED AP

Dear Members:

The rules and regulations governing Professional Engineering in Pennsylvania experienced a radical change a few years ago when the requirement for continual education for license renewal was enacted. Our Lehigh Valley Chapter views this change as an opportunity and has made the education of our members (PDHs) a primary focus of the organization.

The Lehigh Valley Chapter of the Pennsylvania Society of Professional Engineers has a proud history of commitment to the engineering profession and the community, and we continue to do so. We sponsor monthly tours of organizations in the Lehigh Valley that are of interest to members of our profession. The subject matter of these tours are varied; from manufacturing facilities (including a chocolate manufacturer) to an explanation of engineering contracts. Recent tours have been quite popular. We have had to limit enrollment in a couple of instances, attesting to their popularity. We even had a number of people outside of our organization attending! Besides highlighting the myriad of enterprises that comprise the Lehigh Valley this, is an effortless way to earn PDHs. As a plus, the Chapter earns a very modest $10.00 per PDH.

Cont’d on Page 2
Our Holiday Dinner this year will be on December 12 at the Allentown Brew Works. This is a great opportunity for you and your significant other to socialize with members of the Lehigh Valley engineering community. The ambiance of the Brew Works is reminiscent of an Allentown of another age, a definite plus for those of us who are nostalgia buffs and remember those times. The setting is virtually across the street from the massive downtown Allentown renewal project, which has an ice hockey arena at its core. The Phantoms professional ice hockey team are scheduled to start play in the 2014-2015 season. Also part of the renewal is a hotel, restaurants, and shops. Members of the Alvin H. Butz team that are constructing the arena will be giving a presentation on the construction progress to date and challenges encountered. We look forward to what should be a very interesting evening. Please go to our website to register. Attendees are eligible for 1.0 PDH.

Please remember our Scholarship Fund, and MATHCOUNTS. Neither would exist without your support. We all receive benefits from the communities in which we work or live. I beseech all of you to contribute or convince your company to contribute. This is your opportunity to give back. It is money well spent, I assure you. We have been able to increase our scholarship funding to $1,750.00 per student this year and hope to increase this amount.

This has been a good year. I see nothing but continual success for us in the future.

Thank you.

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I'll try anything once, twice if I like it, three times to make sure.
- Mae West
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If you can't convince them, confuse them.
-Harry S. Truman

Victaulic Company Tour
Alfred Gruenke, PE

Nestled in the farmland north of Easton is the world headquarters of Victaulic Company, a world-wide and world-class company built on engineering expertise and quality manufacturing. Its trademark product, mechanically bolted pipe couplings and fittings, usually painted orange, are visible throughout the world in a myriad of applications. Victaulic has couplings for pipe sizes up to 144 inches. Its products are installed in locations as diverse as Hoover Dam, the Freedom Towers, and the Library in Alexandria.

Thirty-two members of the LVPSPE and ASHRAE who toured the facility on October 23rd came away impressed with the level of commitment Victaulic has to their product, their customers, and to their community. Victaulic opened its present location in 1977, and has been continually expanding its presence since then. The latest “expansion” was in October of last year when it moved the 1700s era Uhler’s Hotel, a local landmark owned by Victaulic and used as a guest house, 300 feet back from the road in order to improve traffic at an intersection. Victaulic plans to add 17 rooms to the existing structure for meeting space and gatherings.

The name Victaulic is a short for “Victory Hydraulic.” The company is an outgrowth of a World War I innovation to facilitate quick water and fuel pipeline installations. It received its first patent in 1919. In 1925, the company opened its first American office in New York.

Victaulic is the world leader for mechanical pipe joining systems, from a mechanical bolted coupling that engages into grooves and uses a gasket seal, to a product line that now includes valves, hydraulic pipe systems, plus other products related to the piping.
industry. The company is truly global, with 15 major manufacturing facilities, 28 branches worldwide, and over 3,600 employees, 1,100 in the Easton area. Victaulic products are installed in 120 countries across diverse business lines including oil, gas and chemical, mining, power generation, water and wastewater treatment, military and marine systems, commercial buildings and fire protection.

ISO 9001 certified, Victaulic continues its spirit of innovation, tackling the industry’s most unique challenges through the development of new products and services. With “cradle to grave” support, the company can support all stages of a project. One of its offered services is loading pipe and other equipment on a truck in a given sequence, enabling “just in time” delivery to installation contractors. All components are tested to rated capacity. We witnessed a graphic demonstration of the testing process by subjecting a 300 psi butterfly valve to 2,800 psi before it failed. A pipe coupling similarly withstood four times the pressure rating.

We were welcomed by the Manager of Corporate Communications Megan Longenderfer. Training Coordinators Kaylynn Morris and Meggie McNamara guided the tours. The orderliness and cleanliness of the facilities was apparent from the foyer to the foundry. The phrase “you can eat off the factory floor” applies. The machinery is state-of-the-art, with an emphasis on environmental impact and lean manufacturing. All components are painted by dipping, not spraying. 90% of its steel comes from scrap metal, 20-30 tons of which is delivered to the plant daily. The steel is melted in induction furnaces and cast into the fittings, couplings, and myriad of other components Victaulic produces.

The Victaulic staff was hospitable, friendly and knowledgeable. It’s always a pleasure to learn that a local company has worldwide impact.

1.5 PDHs were awarded for the event.

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Blommer Chocolate
Alfred Gruenke, PE

Tucked away only a stone’s throw from Route 29 in East Greenville, Blommer Chocolate Company was toured by thirty members of the Lehigh Valley Chapter, Pennsylvania Society of Professional Engineers and guests on a pleasant fall evening on November 12th. A company and an industry not well known to the Lehigh Valley, it employs 200 people at its 220,000 square foot facility. The privately held company was started in 1939, and now has plants in Chicago, San Francisco, and Toronto. It is the largest roaster of cocoa beans in the North American market.

Our tour guides were Eric Bliss, Jim O’Brien, Joel Swartz and Marlene Stauffer. Eric also

Cont’d Page 14
SCHOLARSHIP SPONSORS

Please Contact the Valley Engineer Editor to sponsor scholarships for the remainder of the calendar year.

SCHOLARSHIP – THE GIFT THAT LASTS A LIFETIME

A great way to be involved in the LVPSPE Chapter is to contribute to the

SCHOLARSHIP ENDOWMENT FUND

The Scholarship Committee is continually seeking contributions to the Fund. If you would like to contribute in any amount – please see the PSPE website at Lehigh Valley Chapter link – http://www.pspe.org/scholarships

Please write your TAX DEDUCTIBLE donation to “Pennsylvania Engineering Foundation” or “PEF”.

Donations should be mailed to:

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Please note “LVPSPE Scholarship Fund” on the comment line.

SCHOLARSHIP OPPORTUNITIES

The Pennsylvania Engineering Foundation currently administers the following scholarships for engineering students:

Undergraduate
- $2,000 PEF Grant
- $1,000 Harrisburg Chapter PSPE Grant
- $1,000 Professional Engineers in Private Practice Grant

Upperclassman
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Applications and guidelines are on-line now at http://www.pspe.org/scholarships

Any questions regarding scholarships can be directed to

Alex Dezubay, PE
609-577-0714
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Board of Direction Meetings

The monthly Board of Direction meetings are 6:00 PM on the second (2nd) Monday of each month. Open to all members; they are held at the office of Barry Isett & Associates, 85 S Route 100, Allentown, PA.

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gave a presentation that preceded the plant tour. They adeptly guided us through the complex process and explained the myriads of machinery that converts the cocoa beans to a saleable product.

Blommer Chocolate does not make chocolate for the consumer market. Instead, it receives cocoa beans from various countries around the world and processes them into chocolate liquor, cocoa butter, milk chocolate, dark chocolate, semi-sweet chocolate drops, cocoa powder, and sugar free coatings that are sold to other companies that manufacture the final products that sell on the retail market. Their customer list includes Hershey, Mars, and Nestlé. Smaller customers such as Just Born and Gertrude Hawk are also served.

Chocolate starts out as cocoa beans, inside a pod shaped like a football approximately six inches long. Cocoa trees are very delicate. All cocoa trees grow within 15 degrees from the equator. Blommer imports the beans primarily from the Ivory Coast, Africa, but also from South America and Indonesia. The cocoa “plantations” are usually quite small, usually only four to five acres. Blommer has an active program to assist growers with cocoa tree and plantation management. There are hundreds of suppliers, and each growing area has a slightly different taste. One of the challenges is to blend the various beans into a consistent product. There are 400 to 500 tons of cocoa beans delivered to the plant each day. The beans are roasted, shells removed, ground up, cooked, and blended. Other additives such as sugar, milk, and lecithin (emulsifier) are also delivered in bulk. They are blended with the cocoa and converted to chocolate.

Blommer ships the chocolate material to customers in 7,000 gallon stainless steel tankers. These are heated so that the chocolate remains a liquid so it can be pumped. Other products are shipped in climate controlled containers and rail cars.

The machinery that converts the cocoa beans to the various forms of chocolate such as conveyors, grinding mills, air separators, pneumatic conveying, and the like is known to many of us. However, this is a unique application. Chocolate is a food, hence must adhere to strict FDA sanitary standards. Lubrication is of particular concern. Wherever the machinery comes in contact with the chocolate, ordinary lubricating oil cannot be used. Instead, vegetable oil is the lubricant!

A very pleasant smell of chocolate permeated the plant, which added to the general ambience. We thank Blommer Chocolate and the fine staff for giving us an opportunity to become more cognizant of the fine companies that make up the Lehigh Valley.

2.0 PDHs were awarded for the event

I like pigs. Dogs look up to us, cats look down on us. Pigs treat us as equals.
-Sir Winston Churchill

Only a man who knows what it is like to be defeated can reach down to the bottom of his soul and come up with the extra ounce of power it takes to win when the match is even.
-Muhammad Ali

You want the truth? You can’t handle the truth.
-Jack Nicholson in the movie “A Few Good Men”

A decision postponed is better than no decision at all.
-August Polinske, PE, LLD, PhD

As we express our gratitude, we must never forget that the highest appreciation is not to utter words, but to live by them.
-John Fitzgerald Kennedy

We wish you and your families a bountiful and blessed Thanksgiving Day.