Did you Know....

The word “plumber” comes from the Latin word “plumbum,” which means “lead.”

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Local Chapters are not authorized to speak for the Society.
President’s Report

Welcome chapter members to a new ASPE monthly meeting season. I hope everyone has had a great summer and enjoyed vacation time with family and friends.

This is my very first president’s report as the new chapter president. I’m nervous and excited at the same time with the anticipation for a successful tenure as the chapter president and the new changes that have been made for our chapter.

The chapter board has been working very hard starting this summer to meet and discuss all proposed changes, etc. along with helping to create a new website and newsletter for our chapter and I want to thank them for their effort, with special thanks to Jason Eagles and Kathy Dwyer for their hard work.

There is also a new meeting location for our chapter meetings so thanks go out to Olive Grove Restaurant for wanting our chapter. Please note in the newsletter that meeting start times as well as times for table-top presentations, dinner and technical sessions have been revised to help prevent those long evenings after a hard day at work. Hopefully everyone will enjoy getting home earlier while still enjoying a good meal and learning something.

I also want to especially thank all our great chapter sponsors and advertisers who have come onboard this year to help support our chapter. Please refer to all their ad’s in our new newsletter for our sponsors as well as access to their sites via our website.

I’m sure there may be some bugs to work out with all the changes being made for our chapter but I’m confident our great board will resolve any issue that may occur. I want everyone one to know I take this new position and responsibility very serious. I’ve been a member of ASPE over 40 years and member of the Baltimore chapter for over 30 years. I know there are new changes being made and hopefully there will be more positives than negatives. I only want what’s best for our great chapter. Please feel free to contact me with any suggestions, comments or whatever else you need to discuss.

Best regards,
Jeff Edwards, CPD, GPD
President-ASPE Baltimore Chapter
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Jessica Lavin Reid 410.646.4500
Edward St. John
Learning and Teaching Center
University of Maryland, College Park

Construction completion: 2017
Construction cost: $112 Million

The first new building on campus dedicated to classroom space, the 187,000 gsf Edward St. John Center incorporates the renovation of nearby Holzapfel Hall and an addition to replace the existing Shriver Lab. This center features lecture halls, state-of-the-art classrooms of varying sizes and capabilities, offices and a tremendous amount of student study, collaboration and break out space. The new East Wing includes instructional labs designed for general chemistry with supporting lab support spaces. The project requires LEED certification and is tracking LEED Gold.

The project includes central utility generation and distribution systems as well as related site and utility improvements, stormwater management, pedestrian circulation, landscaping, and service access.

The Edward St. John Teaching and Learning Center will be a showcase for energy-efficiency strategies and technology including:

- Air-to-air energy recovery for all central air handling systems and dedicated outside air systems
- Demand-controlled ventilation
- High-efficiency, variable speed chillers and controls
- Premium efficient, variable speed distribution systems, including domestic water, heating hot water and chilled water
- Water-conserving, high-efficiency plumbing fixtures
- Recovery of air conditioning condensate for cooling tower make-up water
- Flash steam heat recovery
- High-efficiency light fixtures with occupancy and daylighting controls
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- A full-day workshop on designing commercial kitchen systems
- Three sessions in French
- Interactive, hands-on education

2017tech.aspe.org
I would like to thank our chapter members for electing myself and Jeff Edwards to our respective positions for the upcoming season. I hope that I will be able to contribute and provide meaningful technical presentations as well as help our new president with his duties.

For our first technical presentation of the year, we have Davis Trexler from Rinnai America Corp. Davis graduated from Mercer University with a BSE in Mechanical Engineering in 2015 and is currently the commercial technical sales manager for the Mid-Atlantic territories—MD, VA, DC, WV. He has held several positions within Rinnai including application engineering and technical sales. Davis has been the commercial sales manager for a year and trains engineers, plumbers, and wholesalers in addition to providing consultation to clients through all stages of construction, supervising equipment start-ups, and of course selling product.

Please contact me at cswope@muellerassoc.com or (410) 646-4500 if you have any interests in providing a table top display, becoming a Meeting Sponsor, or have a meeting topic idea.
Welcome to 2017-2018 ASPE kickoff newsletter. We are moving into a more automated and easy to use website and reservation system for your convenience. You can pay when you make your online reservation at our new website. Our policy is 1 meeting miss before we will be charging you for the cost of a reservation without showing up. The reason for this policy is merely because the restaurant requires us to give them a solid number 24 hour prior to the meetings so the chapter, non-profit, must pay for your meal whether you show up or not. So please make a note of this. I have noticed the past few meetings folks have not been RSVP’ing and that is an issue also as we might not have enough food to have you stay for dinner.

I am happy to report our chapter is in solid financial position. We have had many supportive companies step up and advertise which is much appreciated. I hope you will support those who support ASPE. If you have any questions or issues with putting your credit card information onto the website please let me know.

Credit cards that we now accept:

Kathy Dwyer
Treasurer

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**Newsletter Advertising:**

- As a paid advertiser you will have your advertisement in the newsletter for either a full year (11 editions) or on a monthly bases.
- Manufacturer’s Reps may run a full page advertisement for an upcoming seminars at the full page monthly cost.
- Ads for the year will begin in the September issue and run through the June issue
- Advertisements starting mid-year will be billed on a monthly basis.
- All ads must be paid in full prior to the advertisement being included in the newsletter.
- Advertiser must provide ads in high resolution, and must one of the following formats: PDF, TIFF, PNG, Bitmap, Windows Metafile.

**Cost per advertisement size is as follows:**

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<th>per Month</th>
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<tr>
<td>Full page</td>
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**Help Wanted Advertisements are $50 per month and must be either a 1/4 or a 1/2 page advertisement.**

Please Contact [Jason Eagles](mailto:jeandelvers@ejdwyer.com) or [Jeff Edwards](mailto:jeandelvers@ejdwyer.com)

Make checks payable to Baltimore Chapter of ASPE. Please contact the chapter Treasurer with any questions.

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Circuit Solver / circuitsolver.com
Thermostatic balancing valve automatically & continuously maintains recirc temperature. By ThermOmegaTech, inline valve eliminates time consuming balancing procedures.

Comfort Designs / comfortdesignsbathware.com
ADA compliant, tile finish and tub replacement fixtures. Shower pans, ADA pans, multi piece with solid surface, acrylic, and fiberglass finishes. Asura trench drain. New integral trench drain with zero threshold shower systems.

Just Sinks / justmfg.com
Market specific applications. Just Sinks includes light commercial scrub stations, institutional, drop in, single ledge and specialty markets. Featuring Integra Drain for clean look with no flange.

Powers Mixing Valves / powerscontrols.com

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Sizing for Commercial Tankless Systems

Summary by Davis Trexler, Commercial Technical Sales Manager for Rinnai, Mid-Atlantic

Tankless water heaters are often an attractive candidate when designing a commercial hot water system. Compared to tank heaters, tankless heaters tend to have an advantage when it comes to efficiency, redundancy, amount of replaceable components, and mechanical space required. Compared to boilers, they tend to have an advantage in upfront cost, mechanical space required, efficiency, and redundancy. However, one of the biggest obstacles, when designing a tankless system, stems from a perceived difficulty in sizing the system. It’s true that there is a stark contrast between sizing hot water systems with tanks and without tanks; however, both sizing methods should be understood so that the optimal product is chosen as the basis for design.

**Sizing for Tankless-Only Systems.**

When sizing a tankless system, it is crucial to understand the system’s strengths and weaknesses. A tankless heater is capable of producing a steady flow of water at the set-point temperature, indefinitely. It should be emphasized that this type of heater will guarantee the set-point temperature, but it will vary flow rate in order to do this. This makes it a great option for steady continuous usage at moderate flow rates. When the demand exceeds what the tankless unit can produce at the specified set-point temperature, then its internal servo-valve will restrict flow. Furthermore, this restriction will reduce the hot water flow rate until the tankless system can meet the aforementioned outlet temperature. When considering this type of system, size for the maximum expected instantaneous demand. The expected maximum demand should be conservative since any extra demand will be restricted due to the heater’s servo valves. However, grossly oversizing the system is not desirable either due to gas/space/financial constraints.

Approximating the “expected maximum demand” can be difficult since usage will heavily vary. To handle this problem, the Hunter Curve was derived. This empirically derived curve charts a graph based on typically heavy usage across several differing application types. This graph provides design flow rate in terms of Water Supply Fixture Units. Water Supply Fixture Units (or WSFU) are an arbitrary unit assigned to different types of plumbing fixtures by America Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE). When sizing a hot water heater, the WSFU of a given fixture will be roughly the same as the hot water demand of that fixture.

In some given application, the total WSFU will need to be calculated and then evaluated on the Hunter Curve. The corresponding design flow rate will be an estimation of the maximum expected instantaneous demand of that system having considered size and application. The slopes and curves will be different based on application type (See figure 1).

For some given amount of WSFU, food service applications should be designed for a larger flow rate than hospitality applications, which in turn should be larger than the design flow rate of multifamily applications, which should likewise be larger than the design flow rate of office/educational facility applications. In other words, this means that the diversity (or percentage of fixtures running simultaneously) will be higher in Curve A than Curve B and so on (see figure 1).
Figure 1

Of course, there will be some scenarios where the Hunter Curve is not a good model. For example, it would not accurately approximate the necessary hot water for a brewery, a dairy, or a sports field house. For these applications, the system will often need to be sized either to meet the total demand of the industrial process (for brewery and dairy) or to approximate very high demand (60%--100% simultaneous usage for the locker rooms). Of course, these applications will vary greatly from job to job, so there will often be a flow rate requested by the client specific to his/her need.

**Sizing for Systems with Storage.**

When sizing for storage, the process is more straightforward. Water heater systems that incorporate storage guarantee that the produced flow will meet the demand; however, it will vary the outlet temperature in order to do so. Storage based designs should be sized to provide for the potential usage across the hour of peak demand. To calculate this, total hot water GPH should be evaluated. GPH (gallons per hour) is an estimated measure of the total gallons of water that an appliance or fixture will use in one hour. GPH is specified by the manufacturer or technical publications such as ASPE and ASHRAE. Finally, to know the hour of peak demand the GPH of all fixtures in a given application must be added together. We then compare this to the known recovery rate of the heating system (in GPH).

**Conclusion.**

Whether sizing for a system with storage or a system comprised only of tankless units, the theory behind meeting the application’s demand should be thoroughly understood. This way, multiple options, with varying pros and cons, can be presented to the client while avoiding over-sizing and under-sizing altogether.
"WITH OTHER MATERIALS, I WORRY ABOUT THEM LASTING, BUT NOT WITH CAST IRON."

Kelly Ireland, Journeywoman / Local 690

For newly minted journeywoman
Kelly Ireland, plumbing is a family affair

“My dad and my grandfather are both plumbers. I never thought I’d be one, but now that I am, I LOVE it. I used to be a commercial baker. I never thought of myself as Kelly the Baker, but I take pride in being Kelly the Plumber.”

As a plumber for the Local 690 in Philadelphia, Kelly has been a part of the Comcast II building, one of the biggest projects ever in the city.

As Kelly puts it, “How can you not be happy going to work a thousand feet in the air?”

Kelly also reports that cast iron is her favorite thing to do.

“Cast iron is quality, and it looks like quality. I especially like the challenge of working with large-diameter pipe. Not only am I a woman, but I’m also only 4’11,” so there were some doubts about me in this field — you have to be able to pull your own weight. I had to learn how to pick up and balance 10-foot lengths of cast iron pipe. My shoulder is basically 4’ off the ground, so no matter how I walk the pipe down, it’s difficult to catch it in the middle. It took some practice, but I figured it out.”

Kelly enjoys working on larger projects, and tries to avoid doing smaller jobs that use cheap materials.

“Cast iron is a quality material that looks nice when it’s installed. And I’ve never had a leak. With other materials, I worry about them lasting, but not with cast iron.”

Kelly is proud to follow in her family’s footsteps in the plumbing industry and is proud her family tree is made of cast iron. “People don’t think about it, because plumbing isn’t sexy, but without plumbing, you don’t have a city. You have a health disaster.”

For more case studies and features about cast iron go to charlottepipe.com
Scholarship Update

This is a difficult article for me to write as I recently received news of a passing colleague and friend. I have been operating our scholarship fund with CCBC since it began in 2009. I had the pleasure and privilege to work with Laura LeMire who was the Engineering Department Chair from 2007-2017. Laura was instrumental in the implementation of our scholarship and touched the lives of countless students. A woman who always had a smile and was just a wonderful human being.

Laura passed away on August 24, 2017 at the age of 57. She was a 1977 graduate of Towson High School where she excelled in both academics and sports. At Towson High, she was named Outstanding Female Athlete and made the National Junior Olympics team. She will join the Towson High Athletic Hall of Fame this fall. She graduated with an Engineering degree from University of Maryland College Park in 1981 and master's degree in 1983. While at UMD, she was named an All-American in field hockey and lacrosse. She was a member of Maryland’s lacrosse national championship team in 1981. Laura was the first Maryland athlete to be named to the U.S. national field hockey team. According to family members, she would have participated in the 1980 Olympics had the U.S. not boycotted the Summer Games in Moscow.

She joined CCBC in 2007 as the chair of its engineering department. This is where I would meet Laura in 2009. She immediately struck me as a woman with passion for engineering and helping students. You just know when someone truly cares and that radiated from her. “She was extraordinarily devoted to her students, and she was an excellent example of what a smart woman can do in a field that is mainly male-dominated,” said Dr. Kurtinitis, president of the community college of Baltimore County. She would carefully select students that met our criteria and meet with me to go over transcripts and applications. Laura will be missed by many.

The Chapter has donated $250 in her name to the Laura LeMire Women in STEM Scholarship Fund.
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The Baltimore Chapter of ASPE is excited to launch ASPE Young Professionals (AYP) to help our younger contingent of ASPE members grow as a professional and build their professional foundations. If you are 35 years old or younger keep your eyes and ears open for an announcement about our first networking event later this fall.

If you have questions or already know you’re interested in being kept appraised of upcoming events in the Baltimore Chapter, please feel free to contact Karen Schulte at kschulte@muellerassoc.com or Jeff Edwards at jedwards@muellerassoc.com

Karen Schulte, PE, CPD, LEED AP BD+C
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The changes for the 2018 edition of the National Standard Plumbing Code (NSPC) were approved at a public hearing in Atlantic City, NJ on March 9, 2017. Since then, on June 1, 2017, ownership of the NSPC has been transferred from the Plumbing Heating Cooling Contractors National Association (PHCC-NA) to the International Association of Plumbing & Mechanical Officials (IAPMO).

As present Chairman of the NSPC Committee, I am proofreading the final printing drafts for the 2018 NSPC. The 2018 edition is being changed to a 2-column format. The 2018 NSPC printing drafts will be completed by PHCC shortly and given to IAPMO for publishing the 2018 edition later this year. IAPMO will then manage the NSPC and publish its 2021 edition.

The 2018 International Plumbing Code (IPC) is presently available for purchase on-line from the International Code Council (ICC) and is scheduled for shipment by mid-September 2017.
Membership Report

Another ASPE year is upon us and we are looking forward to catching up with everyone following the summer break. The board has been hard at work with modifications to our website, meeting format and venue. As the changes take effect we encourage feedback to deliver the best possible arrangement.

Membership remained stable over the course of the summer. Region 1 standings as of August reflected 111 active memberships in the Baltimore chapter, ranking us 5th of 15 behind New York, Boston, Philadelphia and Washington DC. One new addition was reported in August following the report:

MacDonald Smith – Sam DeSanto Company, Inc.

Please join me in welcoming MacDonald to our chapter. If you know anyone interested in becoming a member of ASPE, have them email me at andrew.cahill@uponor.com or direct them to https://www.aspe.org/join.

See everyone in a couple of weeks.

TROPHY CASE

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Meeting Schedule

Date: September 27, 2017
Speaker: Davis Trexler - Rinnai
Topic: Tankless Water heaters

Date: October 25, 2017
Speaker: Wes Day - Guardian
Topic: Emergency Plumbing Fixtures

Date: November 15, 2017
Speaker: Mike Fullem - NIBCO
Topic: Valves

Date: December 15, 2017
Event: Christmas Party
Location: Mustang Alley’s

Date: January 24, 2018
Speaker: TBD
Topic: TBD

Date: February 28, 2018
Speaker: TBD
Topic: TBD

Date: March 28, 2018
Speaker: TBD
Topic: TBD

Date: April 27, 2018
Event: Golf Outing
Location: The Timbers at Troy

Date: May 23, 2018
Speaker: TBD
Topic: TBD

NEW MEETING LOCATION!

705 North Hammonds Ferry Road
Linthicum, Maryland 21090
Phone: 410.636.1385

Monthly Sponsorship Opportunities

The Baltimore Chapter of ASPE continues to have successful meetings and is looking to continue improving throughout the year.

The Chapter has the following sponsorship opportunities for each month:

**Meeting Sponsorships**: $200 to sponsor an open bar for the happy hour period of a monthly meeting. This includes announcement in the newsletter, multiple email notices of the meeting and signs at the monthly meeting sponsored.

**Tabletop Presentations**: $100 to provide a tabletop presentation of equipment or material relative to the plumbing profession. The tabletops will be set up from the beginning to the end of the monthly meeting and provides the opportunity to provide a brief (under 5 minutes) presentation.

Please make checks payable to the Baltimore Chapter of ASPE.

Contact Jeff Edwards if interested
jedwards@muellerassoc.com