



October 2024 Volume 44 Issue 2

Chapters are not authorized to speak for the Society

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AMERICAN SOCIETY OF
PLUMBING ENGINEERS
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OPEN

Chapter WOA Liaison
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September CHAPTER MEETING

Date: TUESDAY, October 15, 2024

NEW Location: Countryside YMCA
1699 Deerfield Rd
Lebanon, OH 45036
Tel 513.932.1424

Cost: \$20 online

Schedule: 11:30PM-1:30PM

Thermostatic Hot Water Balancing W/ Circuit Solver

Reservations: Make a reservation and pay for the meeting
through the Chapter Website or email Bill Berger
at bill.berger@kohler.com or John Fox at
jfox@mwspec.com before noon on MONDAY,
October 14th, so that a head count can be
established. As always, guests are welcome.

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LOOKING AHEAD

Chapter Meetings to be held at Countryside YMCA,
Lebanon, OH unless noted otherwise.

October 18-23, 2024

ASPE Convention & Expo

Presidential prose...



Welcome back!

This is your FINAL reminder to register for the 2024 ASPE Convention & Expo! In just a few short weeks engineers, designers, and manufacturers from across the country will gather in Columbus, Ohio. The product show floor will feature hundreds of companies displaying the latest plumbing products, technologies and services. There are opportunities to join National ASPE committees and participate as a voting member of the national ASPE body. I continue to maintain relationships with industry professionals I have met at the ASPE Convention back in 2016. We share design information for our particular region and demographics to better the industry as a whole. Please consider being part of the Convention even just for a walk around the show floor.

Our next Chapter meeting will cover Thermostatic Hot Water Balancing, as presented by Circuit Solver. New plumbing codes are increasingly shortening the allowable lengths of non-recirculated hot water, thereby generally increasing the number of balancing valves on the system. Learn about one possible design solution and discuss other strategies with your fellow Chapter members.

As always we are open to programming requests, please reach out to a Board member or submit on the website YOUR ideas for a technical presentation.

The Board is exploring a golf outing of our own. Potentially to be hosted in September 2025, let Andrew know at andrew.hemmelgarn@kzf.com if that piques your interest. Andrew is not a golfer and is trying to learn what it takes to host a successful outing.

Upcoming Events:

Next Chapter meeting – October 15, 2024
ASPE Convention & Expo 2024 – October 18-23, 2024 - Columbus, OH

Thanks for being here, we like having you.

– **Andrew Hemmelgarn**
President

A promotional graphic for ASPE Young Professionals. It features the ASPE logo (American Society of Plumbing Engineers) in the top left. The main text reads "ASPE YOUNG PROFESSIONALS" in large, bold, blue letters. Below this, it says "Learn more about our group!" in bold black text. A paragraph follows: "AYP is dedicated to the needs of plumbing designers 35 years old and younger. Your local ASPE Chapters have been busy organizing exciting opportunities to help you excel in your career:". This is followed by a bulleted list of benefits: "» Partnerships with other industry groups", "» Social and networking events", "» Professional development opportunities", "» Mentoring programs", and "» And more!". At the bottom, it says "For more info visit: aspe.org/ayp" and features the ZURN logo with the text "Exclusive AYP Sponsor" above it.

ASPE
American Society of
Plumbing Engineers

**ASPE
YOUNG
PROFESSIONALS**

**Learn more
about our group!**

AYP is dedicated to the needs of plumbing designers 35 years old and younger. Your local ASPE Chapters have been busy organizing exciting opportunities to help you excel in your career:

- » Partnerships with other industry groups
- » Social and networking events
- » Professional development opportunities
- » Mentoring programs
- » And more!

For more info visit: aspe.org/ayp

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Technically Speaking...

The Southwestern Ohio Chapter would like to wish a

Happy Birthday

to the following members celebrating their birthday this month:

David Dexter, Sean Duffy, Michael Heaton and Daniel Ross

And the Chapter would like to wish a

Happy Anniversary

to the following members commemorating their ASPE anniversary this month:

Regina Condy, Jon Hall and Paul Rice



Technically Speaking

Thank you to all who attended our September meeting, what a great feeling to start up our sessions seeing so many familiar faces—and a couple new ones as well! Willoughby provided a great overview of the mental health industry, and their resources are available to those who wish to dive deeper on topics such as the criteria to levels of care. Just let me know and I will connect you. This month, Circuit Solver will be covering one of the staples of the domestic hot water world: thermostatic hot water balancing. I hope you join us as they elaborate on best practice design and emerging techniques to stay on par with code updates.

Kind Regards,

– **Samuel Church**
VP, Technical

Looking to stay in touch
with the Chapter



www.southwestern-ohio.aspe.org

Legislative lingo...



I hope everyone had an enjoyable summer. Not much happening in the legislative realm. Looking forward to the ASPE Expo in Columbus next month!

ANSI/AAMI ST108:2023 Water for the Sterile Processing of Medical Devices

One standard that is getting a lot more attention recently is this ST108:2023. This “new” standard revises and replaces TIR 34 that was more of a “best practice” guide but not yet a standard. To oversimplify the requirements, it basically requires pure water to the final rinse and makeup water to steam generation. You won’t find anything in the standard about pure water but it references “critical water” and the quality requirements that have to be met among other things. Best advice is to engage a specialist familiar with the standard to help guide you through case-by-case situations when asked.

– **Jeremy M. Williams PE, LEED AP BD+C**
VP, Technical

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Membership musings...



Folks we have a real treat this month as we've gotten back to lining up the Membership Spotlights again. This month we have our current chapter President Andrew Hemmelgarn. Andrew has been a member since January 2015. Enjoy.

1. Can you tell us a little about yourself?



I am the current Southwest Ohio ASPE Chapter President and Plumbing Engineer at KZF Design. I currently reside in East Price Hill with my partner, Darion, and 3

cats. Owning a 100+ year old home is a full time job and I still have a leaded water line to my house!

2. Where could we find you on a Saturday morning?
A great Saturday starts on the Little Miami Bike Trail for a long run or inline skate. And then a stop at 50 West for a post workout drink. In the afternoon I will often be working on my house or visiting the newest brewery.

3. Favorite sport or sport's team and how did that come to be?
I fell hard for FC Cincinnati soccer after watching a match in person. The atmosphere with the march to the stadium, smoke, flags, and chants was something I had not really experienced at a sporting event.
4. What's the simplest thing you never learned to do?
I don't know how to drive a stick shift vehicle, and I worry this will impact my future Ferrari ownership.
5. What's your best piece of advice for someone who is just getting started in their career?
I tell all my co-ops to carry a pad of paper and pen with them every they go. Write down every word you hear that you don't understand and search it upon return to your desk. You will quickly pick up the jargon of the industry and understand the conversations happening all around you. Writing and note taking also drastically aids in my memory retention.

Thanks for sharing with us Andrew, and your continued support and leadership of our chapter.

Our next chapter event is Tuesday, October 15th on Thermostatic Hot Water Balancing w/ Circuit Solver. Looking forward to seeing everyone again before we get together at the ASPE convention the following week in Columbus!

Lots of renewals have happened since our last article and we'd like to acknowledge these folks for their continued support to our local chapter: Thomas Deberson, Crissy Elliot, Mike Felton, Kyle Gordon, Megan O'Brien, Matt Sciarretti, Darrin Thompson and Matthew Wyles. Thank you all!

Our total membership is up slightly after a few more renewals have come in over the summer break. We're holding strong at 108 members. We have 57 Full members, 18 Associate members, 29 Affiliate members, 1 student, 2 Life members, and 1 Retired member.

Total Membership		
	Oct 23'	Oct 24'
Buffalo-Niagara	40	44
Central Indiana	122	133
Central Ohio	105	113
Cleveland	94	98
Eastern Michigan	107	111
Johnstown	33	30

Kentucky Bluegrass	28	33
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Pittsburgh	29	99
Rochester	98	85
Southwest Indiana	74	40
Southwestern Ohio	104	108
Toronto	109	103
Western Michigan	91	90
Region 2 Total:	1034	1088

Thanks,

**- Brian Selander
VP, Membership**

Through the pipes...



- [Need CEUs?](#)

Did you know that you can earn up to 1.7 CEUs by signing up for a Full registration at the 2024 ASPE Convention & Expo? You'll get access to the entire Technical Education Program, two-day Expo, the Sunday Night Party presented by NIBCO Inc., numerous other networking events and more exciting features that will help enhance your career opportunities. But hurry...the event is fast approaching. [Sign up now>>](#)



- [Convention & Expo App Is Available](#)

The official mobile app for the 2024 ASPE Convention & Expo contains all of the info you need to navigate your experience in Columbus. [Download it now](#) to locate your favorite manufacturers on the show floor, learn about our speakers and their sessions, schedule your own Technical Education Program, and more.



- [You Still Have Time to Sign Up](#)

The deadline to register for the 2024 Certified Plumbing Design Technician exam is October 20. Don't miss your chance to become a CPDT this year! [Learn more>>](#)



- [Free Webinar!](#)

During this webinar, you will learn all about tank sizing requirements for thermal and hydronic expansion conditions in HVAC and domestic water applications. [Register now>>](#)



- [Registration Is Open for the Next Workshop](#)

The next MedGas Workshop will be held at the OmegaFlex-MediTrac headquarters in Exton, PA this November. You will receive 32 hours of interactive training from your expert instructor, Mathis Carlson, that will prepare you to take the ASSE 6060 certification exam. Earn 1.2 ASPE CEUs and get a copy of NFPA 99-2024 as well! [Register now>>](#)



- [ASPE's Book of the Month](#) program continues [Engineering Methodologies to Reduce the Risk of](#)

[Legionella in Premise Plumbing Systems](#) (eBook version).

Through October 31, 2024, you can purchase the digital edition for 25% off the regular member price. Just enter the coupon code **spooky** when you check out.

The discount is only valid on the digital version of the publication, and the coupon code can only be used once. If you are purchasing multiple items, the discount will be applied only to the assigned publication.

Don't forget to enter the coupon code when you check out to receive the discount.

Around the water cooler...

Summer had shown a certain reluctance to release its grip on us. But cooler temperatures and some much needed rainfall has finally arrived. And we offer no tricks, only treats with this month's collection of Water Cooler discussions. In a discussion last month, we considered the interpretation and application of **storm water primary and secondary drainage as found in the Uniform Plumbing Code**. Out of curiosity, we posed the following question to the UPC Answers & Analysis Committee (you may want to refresh your recollection of this discussion in the September newsletter):

Please provide an interpretation of the following section: "Last horizontal offset located below the roof." What is the controlling factor, the last horizontal offset or below the roof?

We ask because of the following layout. If you consider "below the roof," it would be the last horizontal offset that ties into the vertical area. However, if you look at it from the "last horizontal offset" before it connects to the building, storm water connects to an underground public storm sewer.

We understand that the code is trying to prevent a blockage within the primary storm drainage conductor by making the secondary tie-in in the vertical. But should that tie-in be at the roof zone elevation or on the lowest floor with a horizontal offset? Making the tie-in on the last vertical section before changing to the building storm water drain would seem to involve a lot of extra piping and the need for additional chase space. This could potentially imply extra piping and chase space. Making the tie-in in the vertical primary storm conductor as it leaves the roof elevation area would meet the code requirement.

So, what does the commentary say, and what supports the idea of extending the secondary through the building to the last horizontal offset, which might be floors below the roof elevation? See the attached for additional details, and feel free to reach out if needed.

The UPC Answers & Analysis Committee answered as follows:

This means that you tie the primary and secondary together directly below the roof line below the last horizontal offset, not the building storm sewer drain.



Answers provided by the Answers and Analysis Committee are informal interpretations of the Codes and do not represent the official position of the Technical Committee or IAPMO. Official code interpretations can be obtained only by submission of a written request for a formal Interpretation to the Technical Committee.

Note that the Authority Having Jurisdiction is the ultimate authority in interpreting the code in the jurisdiction in question.

And this strikes us as yet another example of the intent and the wording of a code section not necessarily being on the same page.

• **Ethics and due diligence.** These are two subjects that often exist hand-in-hand. And they can pose a quandary in terms of how a design professional should approach them in the workplace. Consider the following discussion (as always, edited for confidentiality)

I have been reading "The Informant" by Kurt Eichenwald, about all the shenanigans at a major industrial concern. And many think we ARE having increasing problems. All of which raises the important issue of how to do due diligence on a potential employer, to avoid getting mixed up in something like that. A related issue is how employers do due diligence on US! Are there standard things people do to check out a company or an individual PE before signing on as an employee?

You have hit on what may be the toughest problem of all: How to determine if someone is presently morally correct and will they be so in future situations. Even you cannot guarantee you will always make the right decision when you are between the proverbial rock and the hard place. You certainly cannot predict the behavior of others. We all make mistakes at one time or another.

How you handle the mistake will tell the difference. Will you hide it or quickly get it out in the open so it can be corrected? Are you willing to

learn your limitations and work within them? You need to understand your limitations. You must know what you know and what you do not know and still need to learn. In other words, you do the best you can do all the time, and pray you can continue to do so. At least that was the goal of our engineering career. Good luck in your career and keep on learning.

- The tasks of the Society's Professional Engineering Working Group continue on. And we have a question concerning the number of **states that have informed the National Council of Examiners for Engineers and Surveyors (NCEES) versus the number of states that may potentially offer the exam.** Take a look at one Cooler's inquiry:

I have a question regarding the states that have letters of approval. There are 10 listed on the ASPE website. Are these the only states that would recognize the plumbing test option when it becomes available and others would approve later as time goes on, or will the plumbing option be available in all 50 once it is ready?

We wish we could give you that information. However, everything is driven by the NCEES at this point. The EPE (Examiners for Professional Engineers) has reviewed and approved the Society's proposal. The NCEES will move toward developing a test bank of question as developed by registered engineers. These engineers will be trained by Pearson-VUE and NCEES in the test development process. Once these test questions are ready, they will be tested in the field before finally establishing the exam module. We must project that we are still 2 to 3 years out before it enters the test cycles.

- And we have one Cooler that was curious about how **Professional Registration and Plumbing** our discipline co-exist in some jurisdictions. Give the following some thought:

I found some interesting Information from the Engineering Center Education Trust in Boston. They list Licensed Professional Engineers in 42 different categories, plumbing being one of them.

In 2022 there were 9. Sometime around 1987 they opened the door so I walked in. They closed the door not to long after. I am not sure why they opened the door and why they closed it.

I was amazed at the number of categories. I thought you might be interested. It's interesting to note that this info is from 2003 to 2022 and that the total of Licensed Engineers increased by 55.

It is an interesting list of engineering disciplines. The problem would be that the NCEES does not recognize the list from a single State Board.

For example, we are aware of an Engineer who gained their Bachelors of Science degree in Architectural Engineering and passed their state's Principles and Practices exam. But the State of Ohio does not recognize Architectural Engineering as a valid engineering degree program. So their PE is not valid and they cannot legally practice within the Buckeye State.

The NCEES is the collection of all the state boards, territories, etc. They control the examination process including the engineering titles and specifics of the exams. While some state boards' might work outside of NCEES, they are few and far between. And for those states that do recognize other titles, reciprocity between other states would be an issue for someone who desires registration in another jurisdiction.

NCEES does not have as many different categories. They have 16 exam specifications with sub-discipline exams under some of those categories. Upon completion of an exam, the examinee is awarded the title of "Professional Engineer," without a discipline designation. So states or territories may mandate a discipline such as mechanical, electrical, civil, etc. But they generally do not go further than that. We know of a mechanical engineer, who obtained registration by taking the HVAC&R exam. Their seal simply designates him as a Professional Engineer.

Once NCEES completes the new plumbing/piping exam, it will join the other sub-disciplines under the Mechanical Engineering Exam suite of exams. The examinee, upon passing the exam, will be designated a Professional Engineer. There will be no official designation of Plumbing Engineer. That does not prohibit the individual from using the title of Plumbing Engineer, if that is their focus.

- There are times when, in designing around a **unique piping system or equipment**, a design professional can find themselves in uncharted territory. Such is the quandary one Cooler found himself in:

We are interviewing for a project that includes the note to "include the replacement of the existing sprinkler system (manufacturer name withheld) in the affected fire zone area". It appears to be a sprinkler system that used a specific fitting ripe with lawsuits and not in use since the 90s. Are you familiar with this product and any replacement strategies? I wasn't sure if they make a transition fitting from this to a grooved or threaded system.

While we have heard about this system, we have not designed around it or actually seen one in the field. With that said, we can offer the following (from a real-world experience):

There was a condominium complex with two different fire suppression systems within six buildings. Four buildings have a system that uses steel pipe with a unique male/female slip/compression fitting. The pipes were unique as well, having non-standard outside diameters as compared to PVC or standard steel pipe. The remaining two buildings have standard CPVC fire suppression piping which does not have any unusual materials or components.

There were manufacturing and installation problems soon after it was developed and installed nationwide. Because of the unusual piping and couplings used and the propensity to fail after it was installed, a class action lawsuit was filed in the early 2000's. A settlement was agreed on, but was only available to buildings where the system or components had failed and did not allow for funds to be distributed to complexes with the systems that had not failed.

Whether an Owner has actually experienced leakage issues (which, depending on the circumstances, could be catastrophic) or not, taking a proactive stance is advisable to replace the system as a whole with a NFPA 13-compliant wet-pipe sprinkler system is advisable.

Naturally, this will involve costs for demolition, new system design and installation not to mention the inconvenience to existing occupants. Without knowing the size and logistics of the building involved, we are hesitant to hazard a guesstimate.

- Sizing a **combined water service** can seemingly be puzzling for some designers. Consider this question posed by a Cooler:

I gave a quick fire protection question. If I have a 6-inch combined fire/domestic water main, do I need to provide any allowance for domestic when sizing, or is that just for a line 4-inch or smaller?

The size of a combined water service is governed by the usage of greatest demand. This is typically the fire protection system. Especially once you factor in hose stream allowances and, when present, standpipes into the equation.

The only time you may need to include an allowance for either system is if you know in advance of a future and higher demand that needs to be accounted for.

Bear in mind that the water purveyor may also have minimum criteria that may also drive water service sizing.

Note that it is unlikely both systems will be used at the same time. After all, if there is no fire present, people will remain in the building and go about their business. And if there is a fire present, they are not going to hang around for long.

Parting thought...

Hello, October. I am ready for change.

I accept the changes ahead throughout all areas of my life.

I honor and embrace the essence of who I am and embrace myself.

As my light shines brightly, I embrace peace, joy and happiness into my heart and reflect inspiration into those around me.

I welcome the overflow of blessings into my life.

I trust in the guidance I am given.

I am blessed and grateful.

-Babz of Inspire Positive Soul Sensations

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Cold Water Recirculation



Last year, we implemented our thermal actuator technology into the CircuitSolver® Union Cold Water balancing valves. These valves are installed in domestic Cold Water recirculation systems to mitigate the risk of Legionella and other bacterial growth. Cold water recirculation is becoming more prominent in hospitals to reduce water stagnation and ensure residual chlorine is distributed but can be beneficial to any commercial building that could experience periods of low flow or non-use.

