



IN THIS ISSUE



Board of Directors	Page 2
President's Report	Page 3
Legislative Report	Page 6
VP Technical Report	Page 9
Tech Corner	Page 10
AYP Education Report	Page 15
Membership Report	Page 16

MEETING FORMAT

6:00 – 6:30	Social
6:30 – 6:45	Announcements & Table Tops
6:45	Dinner Served
7:00 – 8:00	Presentation

DATE:	February 22, 2023
TIME:	6:00pm to 8:00pm
PLACE:	Olive Grove Restaurant
TOPIC:	Sprinkler Design
SPEAKER:	Prof. Ken Isman Univ. of MD

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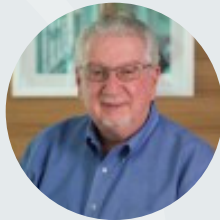
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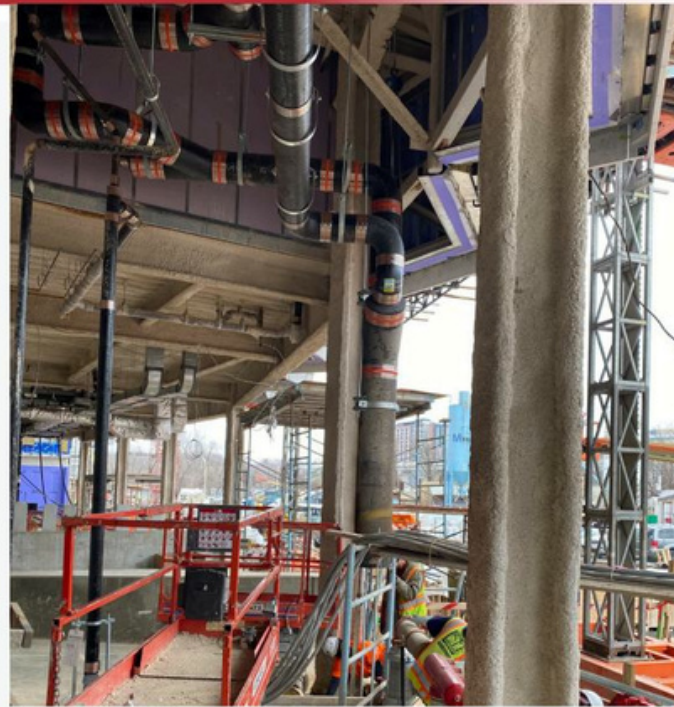
Chuck Swope, PE, CPD, LEED AP BD+C
Chapter President

The President's Report

February is the Baltimore Chapter's Fire protection month! We like to dedicate our hottest topic to the coldest month in the year for good reasons. Look for Julian's VPT article to tell us all about Professor Isman's presentation for our regular meeting. It's always a great chance to learn more about a new topic as he pulls from decades of experience. Speaking of new topics, we're adding new events to the remaining calendar as we speak. Our Summer Party has been scheduled for July 29th! We'll be holding it at the Oregon Ridge Park and all of our chapter members and their families will be invited! More info to come for sure, but there will be plenty of food for sure. Similarly, we're also finalizing our annual spring event with the Local 486 Plumbers and Steamfitters Union. We have even more planned for our event this year, including hands on cast iron pipe fitting, product demonstrations, and classroom time with the Union training staff and apprentices. This event is a great opportunity to learn about how our drawings get brought to life.

Last but not least, February is host to the National Engineer's Week. As you may know, Baltimore ASPE has been part of this program since 2018 and is presented at The Engineering Society of Baltimore's Garret-Jacobs Mansion in Mt Vernon. It is a great venue where we bring local high school students together for a short presentation and a mini-Engineering fair. The main idea behind this event is to expose students to different aspects of engineering, such as Architectural, Mechanical, and Plumbing Engineering. The presentation is a short description of the different branches of Engineering, a short history on ASPE and Plumbing Engineering, as well as what is expected of an Engineer. Believe me, you can see the difference between having their attention and having their interest when we talk about salaries! The Engineering Fair is where we have booths setup to display interesting products and give the students a chance to interact on a smaller scale to learn what we do for a living. For example, I work the Consultant Engineer's booth and describe my day-to-day tasks, what projects I work on, and what makes my job interesting. I hope that you'll cheer us on this year as we bring more students into the Engineering fold.

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Chris Imhof, PE, CPD
Vice President- Legislative

Legislative Report

New legislation in Maryland regarding on-site wastewater services

During the 2022 Legislative Session, the Maryland General Assembly passed legislation establishing the State Board of On-Site Wastewater Professionals (Board) under Title 9, Subtitle 11A of the Environment Article. The law requires an individual who provides an on-site wastewater service to be licensed by the Board. An on-site wastewater service is any activity associated with the design, installation, operation and maintenance, pumping, repair or property transfer inspection of an on-site wastewater system.

Until the Board is created, §9-11A-15 requires any individual who provides on-site wastewater services in the State to pay a \$150 registration fee by December 31, 2022, in order to continue providing these services. This \$150 registration fee must be paid every 2 years thereafter until the Board is seated and sets its own licensing requirements and fees.

More information can be found [here](#).

New proposed legislation in Virginia regarding trade licenses

There is new legislation being proposed in Virginia that would reduce regulations regarding trade licenses for plumbers, gasfitters, and backflow prevention technicians.

Examples of some of the regulations being discussed,

1. Exemption for journeyman exam if they complete training program
2. Reduce hours for backflow training program (from 40 to 32)
3. Removal of CEU requirements for tradesmen
4. General reductions in regulatory language
5. Reduce experience requirement for licenses

More information can be found [here](#).

Chris Imhof, PE, CPD
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Julian Chiveral, LEED AP BD+C
Vice President- Technical

Technical Report

As we enter February, we are treated to slightly longer days – the sun may even still be out when you arrive at our next meeting! Speaking of meetings, our January meeting was a blast. Thank you to everyone who came out, and especially to Lisa Reiheld, our esteemed presenter from the International Code Council. Her presentation on the code changes in the 2018 IPC Chapters 6, 7, and 9 was jam-packed with information, as well as some light-hearted humor. If you have any questions for Lisa, she can be reached at LReiheld@iccsafe.org.

As some of you well know, February has been designated as our chapter's Fire Protection month and we are happy that Professor Ken Isman from the Fire Protection Engineering department of the University of Maryland has accepted our invitation to present again. If you have any interest or experience with fire protection system design, this meeting is sure to excite you!

For those of you that don't know, Ken Isman is a Clinical Professor in the Fire Protection Engineering department of the University of Maryland. Ken holds a Bachelor of Science degree in Fire Protection Engineering and a Master of Science degree in Business Management, both from the University of Maryland. After graduation, Ken worked for 28 years in the fire sprinkler industry helping to design water-based fire suppression systems, performing research in developing new products and design techniques for the fire sprinkler industry, and representing the industry in the national and international development of codes and standards that affect the industry. In 2014, Ken returned to the University of Maryland as a professor to teach classes in fire protection systems design, life safety analysis and entrepreneurship. He is a Professional Engineer (licensed in Connecticut) and has been elected to the level of Fellow in the Society of Fire Protection Engineers. He has received both the NFPA Standards Medal, for lifetime service to the NFPA Codes and Standards process and the SFPE Harold Nelson award for lifetime service to the SFPE.

I look forward to seeing you at the meeting on February 22nd!

Julian Chiveral, LEED AP BD+C
Vice President - Technical

Temperature Control for Hot Water Distribution Systems

Complex hot water return systems are problematic due to a misapplication of plumbing science to solve a problem.

November 4, 2022

By: Christoph Lohr

Over the past several years, I often have spoken about second-order thinking. Farnam Street Media addressed first- and second-order thinking in a recent blog post (www.fs.blog/second-order-thinking); the first paragraph is quoted from The Most Important Thing by Howard Marks:

“First-level thinking is simplistic and superficial, and just about everyone can do it (a bad sign for anything involving an attempt at superiority). All the first-level thinker needs is an opinion about the future, as in, ‘The outlook for the company is favorable, meaning the stock will go up.’ Second-level thinking is deep, complex and convoluted.”

“Second-order thinking is more deliberate. It is thinking in terms of interactions and time, understanding that despite our intentions, our interventions often cause harm. Second-order thinkers ask themselves the question, ‘And then what?’ This means thinking about the consequences of repeatedly eating a chocolate bar when you are hungry and using that to inform your decision. If you do this, you’re more likely to eat something healthy.”

As we evaluate plumbing systems today, we can discover many second-order issues. One of the largest and most misunderstood second-order issues is hot water recirculation systems.

These systems suffer from several issues as a result of first-order thinking. To clarify, hot water recirculation systems entail both a hot water supply and a hot water return. Complex hot water return systems have two or more parallel branches; the pattern was to provide a solution for a problem. Problem, solution. Problem, solution. Problem, solution.

However, each solution had consequences that were not originally considered. And where issues really begin to manifest themselves is in these complex hot water return systems due to a misapplication of plumbing science. This includes unbalanced or imbalanced hot water systems, gross oversizing of hot water return systems, or shutting off the recirculation pump, among others. And the consequences manifest themselves in the form of reduced water safety and sustainability.

This article will review the root causes of these issues, what the industry is doing to help fix them, and what the future might hold.

Past State

Over the past several decades, our industry has witnessed several hot water return systems problems. The biggest issues among hot water return systems are:

Lack of hot water balancing.

Many hot water return systems are not balanced correctly (or at all) post-construction. As a result, numerous parallel branches in complex hot water return systems have little to no flow. Those branches with stagnant-velocity conditions (or even full stagnancy) amplify the proliferation of *Legionella pneumophila* and lead to increased water use and energy waste as plumbing fixtures have to remain open longer in order to get hot water delivered.

Oversized hot water systems.

Hot water return system design often uses unnecessarily large safety factors, making systems grossly oversized. These engineering practices led to higher energy costs than required to maintain temperature. These higher energy costs became a target for energy engineers who, in turn, looked to limit the operation of the recirculation pump to minimize energy usage.

However, this decision increased the likelihood of stagnant-velocity conditions in the most hydraulically remote portions of the hot water return system. By oversizing the hot water return system, the basic purpose of the hot water return system, which is to maintain a set temperature, is diluted.

On the other hand, other plumbing professional designers select hot water recirculation pumps that can't meet the system's flow and pressure requirements. These systems become health and safety concerns, as design flow rates are never met and temperatures stagnate.

Hot water system technology limitations.

Until the last decade, hot water system equipment had several limitations. An example is hot water master mixing valves were not designed for recirculated systems, meaning temperature "creep" occurred, as noted in Working Pressure magazine (<https://bit.ly/3SsdkfO>). This, along with energy conservation measures, means shutting off the hot water return pipe was mandated in energy codes.

A potential problem with starting/stopping the recirculation pump is the short-circuiting of parallel branches of hot water return systems. A hydraulically remote branch doesn't hit the design temperature, but because a hydraulically proximate (i.e., closed) loop does meet the temperature and, due to imbalanced systems, the temperature at the pump increases to the high-limit temperature and shuts off.

The hydraulically remote branch possibly never meets the design temperature and remains in a temperature range leading to waterborne pathogen amplification (e.g., Legionella). See Figures 1a, 1b, 1c and 1d, in which blue piping indicates cold water, red piping indicates hot water, and purple piping indicates hot water, but on the lower end temperature-wise. Notice that in Figures 1a through 1d, pipe C never reaches the design temperature (an imbalanced system may be a contributing factor).

Present State

Over the past 10 years, the plumbing industry evolved to address hot water system control. These solutions ranged from new technologies to design techniques to codes and standards development. These advances in plumbing science have been observed by the industry in the following ways:

Digital mixing valves.

Over the past decade, these valves have made larger roads into the hot water system market. More engineers are specifying digital master mixing valves over mechanical master mixing valves, with the improved performance to control hot water systems and the ability for data logging to comply with ASHRAE 188. From a systems-level impact, by electronically controlling adiabatic mixing, more control can be exerted on the water temperature delivered throughout the building.

Automatic balancing valves.

Another trend to keep an eye on is more engineers are moving away from manual balancing valves and toward two automatic balancing valves. To define, manual balancing valves require a test and balance contractor to come in after they are installed to ensure each parallel loop is receiving its designed flow rate. Automatic balancing valves are self-regulating, which, in this case, means no balancing is needed as the valves determine the needed flow rate to maintain the performance of the system.

There are three types of automatic balancing valves: thermostatic, pressure-independent and electronically actuated. Many engineers gravitate toward this solution as it gives them more confidence that their design will be implemented, especially after decades of not receiving test and balancing reports during construction.

- Hot water recirculation pumps with electronically commutated motors. Variable-frequency drive pumps have been on the market for years; however, their adaptation to recirculation pumps is especially noteworthy in the past five years. Electronically commutated motor recirculation pumps are often designed with automatic balancing valves to maximize energy efficiency.

By modulating flow or pressure to meet the performance needs of the pump, the horsepower also can modulate up or down, allowing for potential energy savings without sacrificing performance.

ASPE Legionella Design Guide.

Officially titled “Engineering Methodologies to Reduce the Risk of Legionella in Premise Plumbing Systems,” this design guide from the American Society of Plumbing Engineers (ASPE) has been in progress since 2019; it was released in mid-August for a 45-day public review. This guidance document includes many engineering principles that should be followed to minimize Legionella’s proliferation in plumbing premise systems.

Two sections especially of note are the hot water return design and pressure zone design appendices. The hot water return design section specifically covers the Hardy-Cross methodology for determining flow, head and temperature values in parallel branches of a complex hot water return system.

The pressure zone design section offers helpful insights to further reduce the risk of waterborne pathogen proliferation by walking design professionals through good practices to prevent pressure imbalances in domestic water systems, especially in multilevel buildings.

IAPMO Water Demand Calculator (WDC).

Worth noting is the International Association of Plumbing and Mechanical Officials (IAPMO) WDC and its potential to reduce potable water system sizes by more accurately estimating peak flow rates. The calculator only applies to residential occupancies, but IAPMO’s WDC task group is gathering the data necessary to apply this tool to commercial buildings.

By reducing the size of the pipe, hot water return systems can operate more efficiently, especially when paired with the Hardy-Cross sizing methodology for hot water return systems.

IAPMO 2024 UPC Hot Water Return Provision.

The 2024 Universal Plumbing Code (UPC) includes a new provision giving design professionals the needed language to prioritize public health and safety over energy efficiency when necessary. Since 2015, the International Energy Conservation Code (IECC) has included provisions to turn off hot water return pumps when the design temperature is met. Unfortunately, this can lead to hydraulically remote sections of piping not reaching design temperature (especially if the system is imbalanced).

The 2024 UPC includes language exempting health-care and hospitality facilities from shutting off the return pump. During the technical committee meetings, these two occupancy types were targeted because they had the highest number of Legionnaires Disease cases. While the technical committee commented on this potential correlation between codes, ultimately, the provision was added to show leadership in the realm of public health and safety.

Future State

While there have been many innovations within the past decade, there is a high likelihood that further innovations are yet to come, especially in the realm of standards and codes.

ASPE Commissioning Standard.

This standard will detail the methods for verifying that plumbing systems in new and renovated commercial, industrial and multifamily residential buildings are installed and perform as designed by the engineer and intended by the owner.

ASPE Thermal Disinfection Standard.

This proposed standard will provide guidelines to the health-care and mechanical/electrical/plumbing engineering communities on approaches to optimally implement and manage the thermal disinfection process. Thermal disinfection is one of the primary Legionella mitigation methods used in health care today.

Several plumbing manufacturers developed products to facilitate implementing a thermal disinfection process, including balancing valves, master and point-of-use mixing valves, water heaters, fixtures, etc. This standard will provide direction on how to effectively implement and manage the thermal disinfection process using these components.

Inspection of hot water recirculation systems.

One of the subjects that came up continuously in the uniform codes technical committee meetings was the inclusion of an American Society of Sanitary Engineering (ASSE) 12080 Legionella risk mitigation specialist qualification. Many commenters indicated displeasure with any mandated credential being included in the code. The most common reason cited for this was that codes do not require credentialing.

However, this is not true. National Fire Protection Association 99, Health-Care Facilities Code, in Chapter 5, Medical Gas Piping Systems, includes requirements for the contractor, third-party inspector and third-party verifier all to be credentialed toward the ASSE 6000 series. Thus, the precedent for credentialed professionals in code already exists.

Therefore, as was argued during the technical committee meetings, it is not too far of a stretch to require plumbing installers working in health-care facilities to gain ASSE 12080 credentialing.

Additionally, with several cases of waterborne pathogens in health-care and hospitality facilities due to hot water systems issues, it could be argued that there is a need for credentialed third-party inspectors to verify that the plumbing engineer's design was implemented during construction. These types of hot water system inspections could similarly save lives just as they have done in medical gas.

Hot water systems have been suffering from a lack of second-order thinking for decades. In the past decade, however, we have seen massive strides in improving second-order thinking. As a result, hot water system control has improved drastically. From new technologies to new techniques, and innovative standards to leading codes, the entire plumbing industry is quickly adapting to address this concern. What an exciting time to be part of this plumbing renaissance and revolution!

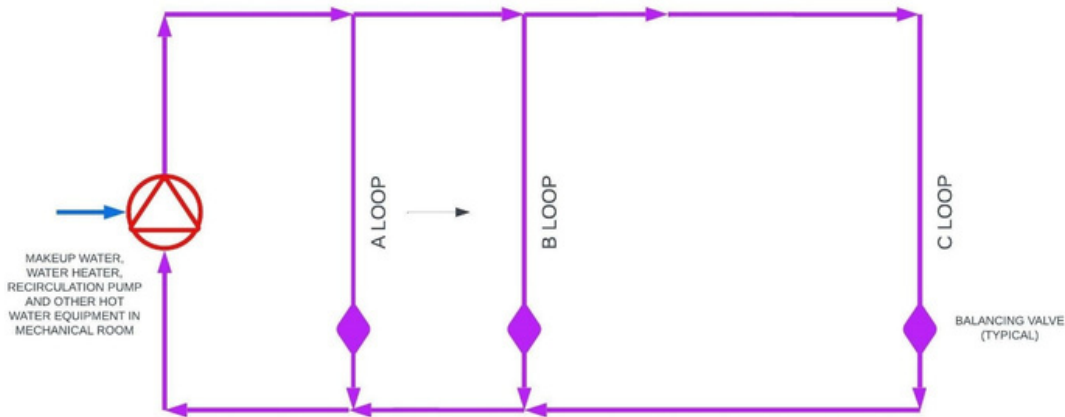


Fig. 1a: Recirculation Pump Turns On - Low Temperature Set Point

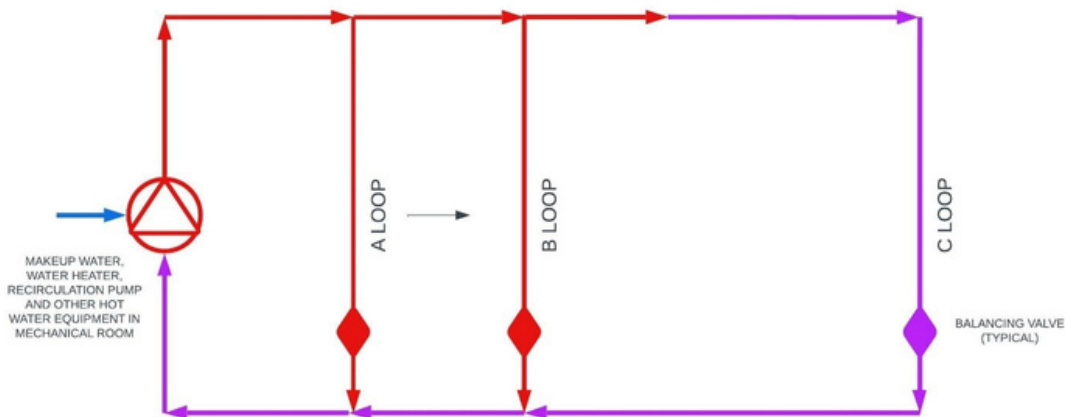


Fig. 1b: Recirculation Pump Remains On - Low Temperature Set Point

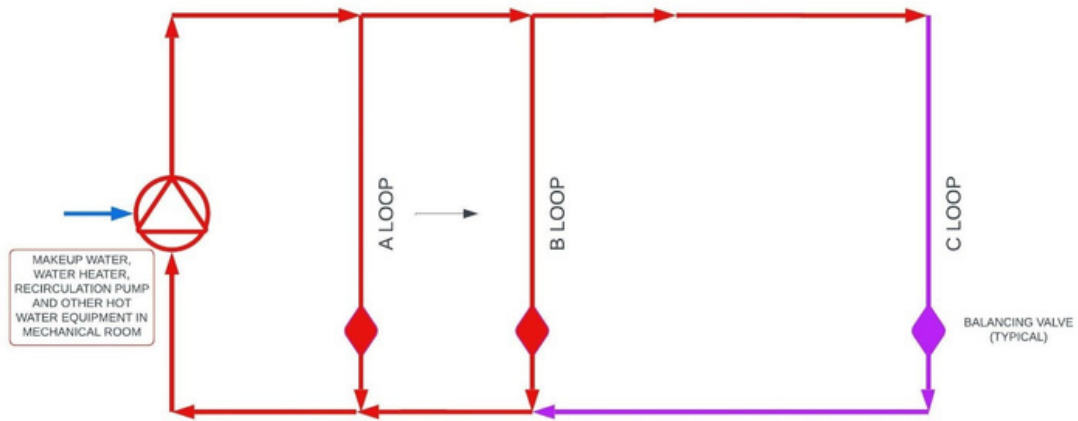


Fig. 1c: Recirculation Pump Turns Off - At High Temperature Set Point

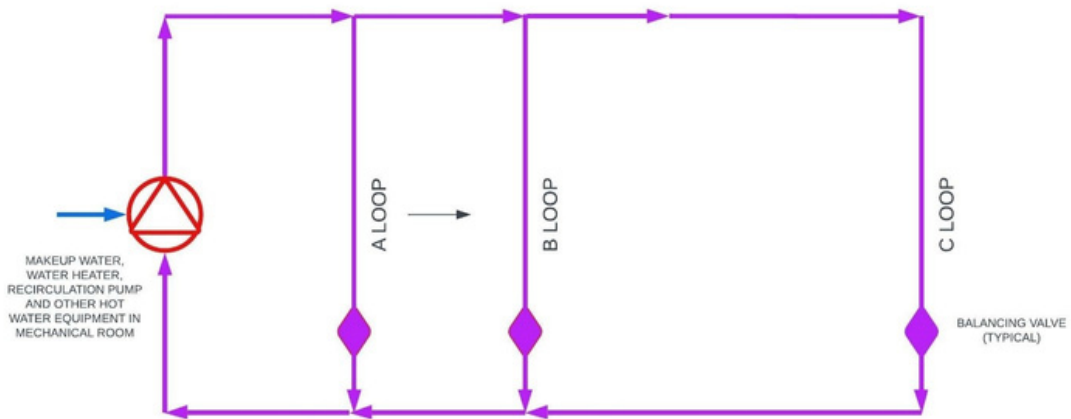
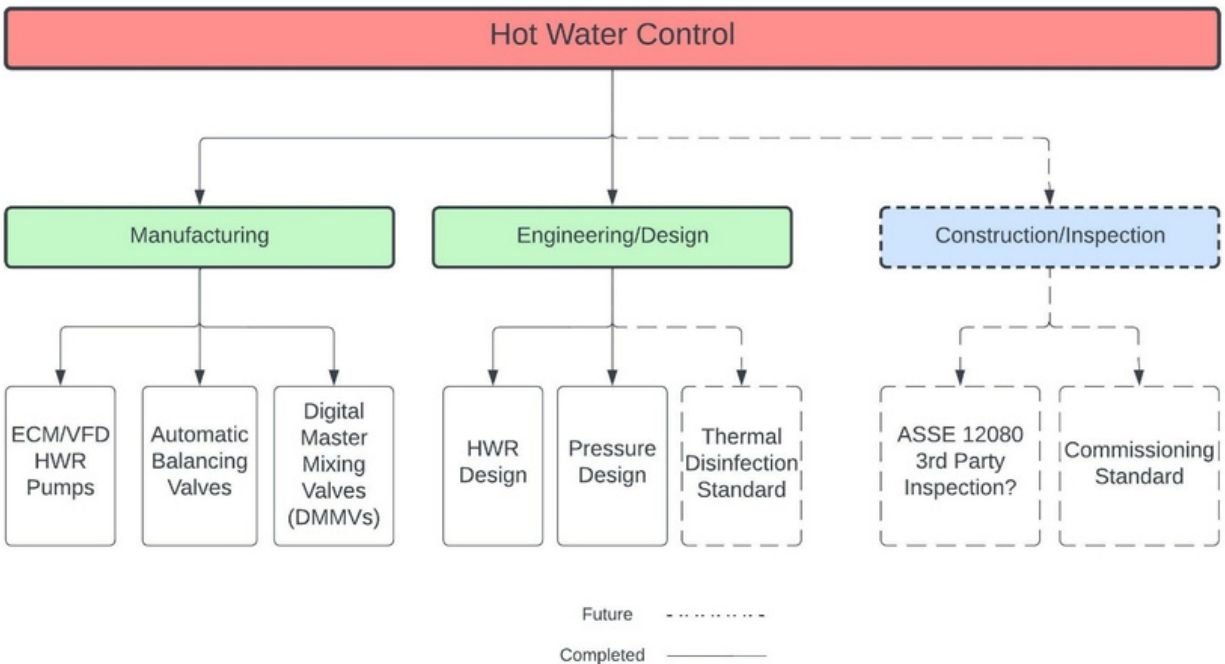


Fig. 1d: Recirculation Pump Remains On - Low Temperature Set Point





Nikita Patel, PE
(Region 1) AYP Liaison | Education Chair



AYP Report

I'm sitting here in sunny Tampa at the ASPE Board of Directors' Meeting for this year's kick-off, quarterly meeting. I can't even complain about working through the weekend because we'll be experiencing high 70's this weekend while everyone is seeing single digits back home. We've got a full plate this weekend, including the AYP Report.

The Region's AYP liaisons have prepared a great list of educational webinars that will take place quarterly throughout 2023.

- February 15, 2023 Revit Workshop*
- March 15, 2023 Fundamentals of Centrifugal Pumps
- June 21, 202 Valves 101: Materials and Applications
- September 20, 2023 Engineering, Sizing and Selection of Water Heating Solutions
- December 13, 2023 General Code Information (Code Topic not determined yet)

Register for the first two seminars with the links in the following flyers. .Please note, this webinar is only for our 35 and younger crowd as the topics have been specifically curated for '101 Basics' content.

* The Revit Workshop will serve as our kick-off meeting to promote ASPE Membership. It will be free to all YP's regardless of membership status. All subsequent webinars will be free for ASPE members only, and require a fee from non-members.

Education Report

ASPE Baltimore is scheduled to speak to a group of 60(!!!) High School Students & Advisors on Friday, February 17th in celebration of Engineers' Week. This will be hosted at the Engineers' Club of Baltimore. We'll be showcasing 7-8 of our ASPE members in a variety of roles- Engineer, Manufacturer, Sales Reps, and Union reps!

Additionally, I am working with the Local UA486 to prepare another training event for our Engineering Community. This is planned for Thursday, April 6th from 5-7PM. I'm also proud to share our friends down in D.C. are following our example and will be directly duplicating our schedule on Wednesday, April 5th.

Previously, we have only focused on hands-on training for different types of pipe joining methods, including cast iron and copper. This year, we are opening the doors to all who want to join. Each attendee can choose 1 of 2 tracks to see. Hands-on demonstrations will still be held for those who haven't seen it- we'll add plastic pipe to the list this year! For those who have already seen this, we will be holding three different case study evaluations on improving communication between Engineers, Vendors, and Installers. We will open up registration for this in the next few weeks, so please watch your inbox! This will be a FREE event to attend, and dinner will be included.

Call or email me with questions!

Thanks,
Nikita Patel, PE
npatel@shermanengineering.com
570-899-9090



Brian Crisp, CPD
Vice President- Membership

Membership Report

Hello again everyone! February is a busy month this year. We've got the three CPD Review sessions hosted both online and in person; can't recommend those enough to those planning to take the exam. We also have Professor Ken Isman from UMD speaking again on sprinkler design. It's always a good meeting with Professor Isman, hope to see you all there.

Baltimore is up to 131 members thanks in part to the folks below! This is the largest group we've had since I can remember, but certainly since I've been VP of Membership. I said the same thing in November so it's extra awesome to see we're growing as a Chapter.

With that in mind, we try to survey those who have chosen to move on from our illustrious chapter, but if you have feedback for the Chapter to make us better or to better serve you, PLEASE LET US KNOW. Any and all feedback is honestly very appreciated.

Please join me in welcoming these folks to our chapter, perhaps "buying" them a beverage at our upcoming meetings.

Santiago Wong-Valera
David Moskowitz
Gene DiGennaro
Scott Haythorn
James Hampson
Daniel Riggins-Hartlaub
Yan Li
Brock Weaver
Brady Orem



If you or anyone you know is interested in joining like the cool people above, or at least hearing about the benefits of membership, please don't hesitate to reach out to me. You can also join directly at <https://www.aspe.org/join>.

Thanks and see you at the meetings!

Brian Crisp, CPD, GPD
Vice President, Membership
bcrisp@jmt.com

Hey Young Professionals!



REGION 1 AYP PRESENTS:

REVIT BIMrx

presented by

EDWARD LARIVIERE

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1. SMART SCHEDULING
2. MODIFY TOOLS PRACTICE
3. NAVIATE MEP
4. AND MUCH MORE!

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12-1PM EST

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THOSE WITH AN INTEREST IN JOINING ASPE

Edward LaRiviere is the Naviate MEP and Fabrication Product Owner.

He's been heavily involved with automation and BIM adoption over the years, and he is now working to bring these efficiencies to teams all over the world.

While at Microdesk, Ed worked as an MEP Consultant, as well as a Strategic Implementation Manager specializing in helping firms with the successful transition to Revit, Automation, and Cloud based workflows.

Hey Young Professionals!



REGION 1 AYP PRESENTS:

Fundamentals of Centrifugal Pumps

presented by

RICHARD L. MEDAIROS, PE

WHO

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ASPE YOUNG PROFESSIONALS

WHAT

1. TYPES OF CENTRIFUGAL PUMPS
2. GENERATING PUMP CURVES
3. READING PUMP CURVES
4. SELECTING A CENTRIFUGAL PUMP

WHEN

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MARCH 15, 2023
12-1PM EST

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Mr. Medairos is a Sr. Systems Engineer and Director of Commercial Training at Taco Comfort Solutions. He has over forty-five years of experience with demonstrated expertise in Engineering, Project Management, and planning.

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Nikita Patel, PE
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01

Growing Healthcare Industry

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02

Code Requirements

Although it's not a current code requirement for medical gas designers to have this credential, it will be something we foresee being written into many specifications, and possibly even AHJ requirements.

03

Engaging the Facility AHJ

As Designers and Engineers, I'm sure you've been asked to make decisions for a project that are the responsibility of the owner. This course helps you navigate those conversations to avoid bearing that responsibility as the designer.

04

Professional Growth

With this credential, you can seamlessly transition into medical gas design with minimal support from supervisors, helping you become a true medical gas design expert

05

Class + Credential

Unlike other companies hosting this course, this class hosted by Sherman Engineering will include both the course led by Mark Allen, as well as the course exam, proctored by MGTC.

REGISTER

A Thinner Shield is Better!

TRANSPERANCE OF TORQUE

Thicker gauge shield material blocks the torque from getting to the gasket. A thinner shield protects the gasket while allowing a more efficient transfer of torque therefore providing a better seal.

DEFLECTION

A thinner shield is more forgiving, flexible, and malleable. It bends with the joint allowing the seal to remain strong. A thick shield is rigid and does not form itself over the joint.

STEPPED JOINTS

The thinner shield allows the shield to conform over the stepped joint providing a more effective seal.



Interested in learning more? Contact Glenn Spilling, National Sales Manager
gspilling@idealtridon.com | 615-686-7826

Or visit us online at IdealTridon.com!



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CELEBRATING THE WAY THE WORLD WASHES

NEW! Digital Mixing Valve Recirculation Stations



Key features

- Pre-assembled and tested recirculation system
- Navigator digital mixing valve
- Shutoff valves on inlets and outlets
- Temperature/pressure gauges on inlets
- Outlet setup and air purge connections
- Return line with circulating pump and check valves
- Easy installation and serviceability
- Electrical outlet
- Mounted to enamel-coated strut
- See technical data for available configurations



The Need: DHWR systems need to be balanced to ensure that hot water is available throughout a building on every floor, at every fixture, at all times.

The Problem: A building typically requires multiple branches off the hot water supply line, and water flows in the path of least resistance which constantly changes in dynamic, open systems. Manual balancing valves and fixed flow devices rely on flow and pressure calculations and cannot respond dynamically to changing needs.

The Solution: Install a CircuitSolver® at the end of each branch, downstream of the last fixture, and the system balances itself.

How it Works: The thermal actuator at the heart of the CircuitSolver® modulates the valve between open and closed in response to changing water temperature. This continuous response to temperature variation enables each hot water branch to quickly and consistently direct hot water flow to where it is needed – No manual balancing required.

Note: The valve never fully closes, allowing a small amount of bypass flow to the return to avoid deadheading the recirculation pump.

CircuitSolver® Placement Do's and Don'ts

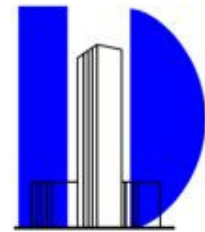
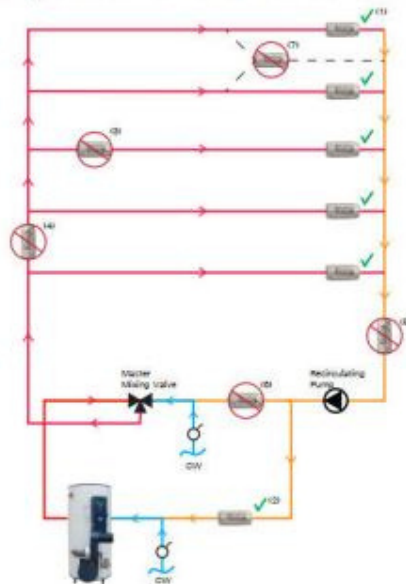
- (1) ✓ at the end of each branch/riser
- (2) ✓ in the return line back to the water heater
- (3) ✗ not in the middle of a branch/riser
- (4) ✗ not in a supply line
- (5) ✗ not in the return line
- (6) ✗ not after the recirculating pump
- (7) ✗ don't combine 2 branches/ risers

Valve Selection

Size: Select the size equivalent to the branch/riser feeding the return line.

Temperature: Select the set-point temperature equal to the desired return temperature.

Example: A standard CircuitSolver® installed on a 3/4" branch/riser with a 120°F return temperature would be CS-3/4-120.



E. J. Dwyer Co.
Since 1970

CircuitSolver® (CS)



CircuitSolver® Union Assembly (CSUA)



CircuitSolver® Union Strainer Assembly (CSUAS)



And many more!



POWERS INNOVATIONS

DIGITAL MIXING SOLUTIONS ENABLE THE SAFE, EFFICIENT DELIVERY OF HOT WATER IN COMMERCIAL AND INSTITUTIONAL FACILITIES. BOTH PRODUCTS HAVE THE SAME FUNCTIONALITY BUT AT DIFFERENT FLOW CAPACITIES AND HELP TO PREVENT SCALDING WHILE SAVING ENERGY.



INTELLISTATION®

The IntelliStation®, with its large-capacity valves, is designed for use in hospitals, universities, and large hotels. The digital water mixing and recirculation solution can be integrated into a building automation system (BAS) to allow facilities managers to remotely monitor and control water temperatures. Help mitigate Legionella and other waterborne pathogens with the high-temperature sanitization mode. Key capabilities include a digital temperature regulation within $\pm 2^{\circ}\text{F}$ to ASSE 1017, even during low and zero demand periods, and is field configurable without the need for a laptop or special software.

INTELLISTATION® JR

IntelliStation® Jr. provides safe hot water consistently and on-demand for smaller applications than IntelliStation. It is also ASSE 1017 compliant, available in 3/4" through 2" sizes, and has a programmable temperature set-back/scheduling program that lowers water temperature when the building is unoccupied. Register the Jr. with the Watts OnSite mobile or web app for remote temperature control, monitoring, and visibility across locations and sublocations.

Scan the QR Code below to access the Selexit Configuration Tool.





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DURAGUARD® PRODUCT LINE



Public health and safety are a common concern. Targeted for commercial applications, Bemis has a comprehensive offering of seats with DuraGuard® Antimicrobial Built-In Seat Protection™ and STAY·TITE™.

WHAT IS DURAGUARD?

DuraGuard is an antimicrobial property built into the toilet seat to inhibit the growth of bacteria. The active ingredient in DuraGuard is zinc pyrithione, a non-VOC (volatile organic compound), broad-spectrum, highly effective antimicrobial agent used to control mold, mildew, yeasts, fungi, algae, gram positive and negative bacteria. DuraGuard does not protect users or others against bacteria, viruses, germs, or other disease-causing organisms.

WHAT IS STAY·TITE?

STAY·TITE Seat Fastening System™ anchors the toilet seat to the bowl by using a patented bolt design with a finned bushing and glass-filled nylon nut, eliminating the need to retighten the seat to the bowl after installation.

**CONTACT YOUR REP FOR
ADDITIONAL INFORMATION**

OFFICE



HOSPITALITY



SCHOOLS



HEALTHCARE



Schedule of Events

<u>DATE</u>	<u>TOPIC</u>	<u>PRESENTER</u>
SEPTEMBER 9	Enhance Revit Design to Increase Design Efficiency	Microdesk - Boston Chapter
SEPTEMBER 15	Industry Night on the Terrace	MCA
SEPTEMBER 28	Lab Gas Design Using the NIH DRM	Sherman Engineering - Nikita Patel
OCTOBER 26	Commercial Water Softening & RO Systems	Canature Water Group
NOVEMBER 14*	Valve Material Applications	Jomar - Lauren Berenato
DECEMBER 14	Natural Gas Design	OmegaFlex
JANUARY 25	VPMIA Code Review	Amtron
FEBRUARY 19-25	Engineer's Week	-
FEBRUARY 22	Sprinkler Design	UMD - Ken Isman
MARCH 22	Fire Pumps	STH
APRIL 26	Booster Pumps	QuantumFlo
APRIL TBD	Annual Golf Outing	-
MAY 24	WSSC Code Update	WSSC - Chris Imhof
JULY 29	Summer Holiday Party	-

**Please note, this meeting will be held on a Monday*

**MONTHLY
SPONSORSHIP
OPPORTUNITIES**

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 Kathy Dwyer or Chuck Swope if interested