

The American Society of Plumbing Engineers

NONPROFIT ORGANIZATION

CENTRAL OHIO CHAPTER www.central-ohio.aspe.org

P. O. Box 2571 Columbus, OH 43216-2571 Chapters are not authorized to speak for the Society

May 2020

President's Report

Hello to all ASPE Members and friends,

Wow, what a crazy time

Hope you can join us for remote webinar session next Monday.

The CPD test has been rescheduled for June.

The 2020 Central Ohio ASPE Golf Outing has been postponed to July 29.

Working Remotely

After weeks and weeks of just working remotely my office is returning to normal. Most people are within the building. We are wearing masks, at least anytime you leave your desk and walk around.

So far, The 2020 ASPE Convention & Expo is still being planned for September 11-16

ASPE's Convention & Expo is the only event designed to enhance the professional development, technical education, and career growth of plumbing engineering professionals, and next year it is being held in New Orleans on September 11-16. At the 2020 ASPE Convention & Expo you will discover game-changing innovations, profitable solutions, and new ideas to maintain your competitive edge. Combining professional development sessions designed exclusively for plumbing industry professionals with the largest plumbing tradeshow in the country, the 2020 ASPE Convention & Expo will be the must-attend event of the year.

Stay safe!

Keep your "Social Distance",

Bill Deardurff

President

May WebEx Technical Presentation May 11, 2020

11:30 PM—12:30 PM

Free— members; \$Free— non-members

SUBJECT: Venting Fundamentals

SPEAKER: Jim Richardson

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Are you looking for ways to earn CEUs and learn new skills while working from home? ASPE Education has you covered! At education.aspe.org you will be able to access our ondemand webinars, as well as our popular Read, Learn, Earn program, and earn continuing education units after successful completion of the accompanying quiz. You can take part in any of our offerings 24/7 from your home office, kitchen, patio, garage, bathroom — or anywhere else you have an Internet connection.

Our 90+ one-hour on-demand webinars offer a convenient way to learn a new skill or brush up on some design techniques. Presented by experts instructors, the webinars cover a wide range of plumbing system design specialties, including fire protection, Legionella mitigation, domestic water systems, rainwater and stormwater harvesting, piping, valves, and fittings, roof drainage, natural gas systems, LEED, solar thermal technology, and more, as well as leadership and communications skills. Each webinar offers 0.1 CEU after completion of the postwebinar quiz, and many of the webinars are free for members of ASPE.

Read, Learn, Earn is a popular program that provides up to 1.2 CEUs per year. Each month a new RLE article is presented, accompanied by a 12-question quiz. If you score 90 percent or higher on the quiz, you are immediately awarded 0.1 CEU. Read, Learn, Earn is free for ASPE members and \$35 per quiz for nonmembers.

Also at ASPE Education, you can find recorded technical sessions from the 2019 ASPE Tech Symposium and the 2018 ASPE Convention & Expo. ASPE members also can access PDF downloads of all four volumes of the *Plumbing Engineering Design Handbook*.

You can start learning and earning CEUs right now at education.aspe.org.



VP Technical—Mike Nickoson

Aside from being a virtual meeting, we are finishing the ASPE year the same way that we started it with Jim Richardson with the City of Columbus Building and Zoning Services speaking. Jim has 29 years of experience in the plumbing/construction industry. His experience includes working as a contractor, being a plumbing inspector and a plans examiner. He has certifications from the state of Ohio as both a Plumbing Inspector and a Plumbing Plans Examiner.

Mr Richardson's presentation this month will cover venting fundamentals.

As always, if there is a topic that you would like to see covered next year, please let me know.

Mike Nickasan

Vice President Technical



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VP Legislative—Mike Spengler

FGI to Establish Committee and Develop Guidelines for Emergency Conditions

The Facility Guidelines Institute (FGI) has received numerous requests for guidance on setting up temporary facilities and adapting existing facilities in response to the COVID-19 pandemic. While not adding to the "noise" of information currently circulating, FGI has a responsibility to respond to this need by doing what it does best: establishing baseline planning and design standards for health and long-term care facilities. Therefore, FGI is convening a special committee to assemble design guidance for facilities during emergency situations caused by weather, pandemics, wildfires, and other emergency situations.

The committee will be responsible for creating a white paper with draft *Guidelines* requirements and lessons learned from past local and national emergencies such as COVID-19. This white

paper will become the basis for a new *Guidelines* standard on design of facilities that can readily be adapted during emergency conditions. The goal is to have the peerreviewed white paper available by the end of this summer and to release the supplemental *Guidelines* standard with the 2022 *Guidelines* edition in early 2022.

In the midst of the pandemic, everyone is looking for answers on how to adapt the built environment to respond to the crisis. It will take time to evaluate the efficacy of the interventions being deployed in facilities across the nation, but FGI—working with partner organizations—is committed to taking the lessons from this pandemic and applying them to a new *Guidelines* standard that will help health care organizations safely and efficiently navigate emergency or epidemic conditions that may arise in the future.

Source: Facility Guidelines Institute

(Continued on page 7)



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VP Education—Brad Fitzsimmons

ASPE Book of the Month

Through May 31, 2020, you can purchase the PDF version of *Advanced Plumbing Technology II* for 35% off the regular member price. Just enter coupon code **MayFlowers** when you check out.

The fine print:

- Discount is only available for ASPE members.
- Discount can only be used on the PDF version of publications.
- If purchasing multiple items, the discount will be applied only to the assigned publication.
- The coupon code can only be used once. The coupon code cannot be used on top of the Chapter Officer discount.

Check ASPE Pipeline, social media, and your inbox for news of upcoming Book of the Month discounts.

Upcoming Webinar – CPVC for Commercial Plumbing and Hydronic HVAC Applications Webinar

May 14, 2020 2:00 PM (EDT)

This program will focus on the most common applications for CPVC in modern commercial construction; hot and cold water distribution and hydronic heating and cooling. Topics will include the history of CPVC usage and development, material properties, flame resistance, code approvals, expansion and contraction, system supports, joining options, dimensional types, insulation requirements, and more.

Not only will the features and benefits of installing a CPVC system be addressed, but also the most common mis-steps and errors regarding the design and installation of these systems, with the intent being the prevention of failure and maximizing longevity. Emphasis will be placed on practical, real-world examples.

Upon successful completion of the course learners will be able to:

- •Articulate the chemistry of why CPVC is unaffected by common disinfection techniques
- •Correctly design to account for expansion and contraction of CPVC
- Specify CPVC for its most suitable applications
- Determine under what circumstances CPVC would and would not require insolation

Fees: FREE for ASPE Members, \$130 for nonmembers

ASPE Read Learn Earn

Every month ASPE publishes a new 12-question quiz with an accompanying chapter or article from one of our publications. Each quiz is available for twelve months. Each quiz is free for ASPE Members and \$35 for nonmembers. Through this special series, ASPE can help you accumulate the CEUs required for maintaining your Certified in Plumbing Design (CPD) or Certified Plumbing Design Technician (CPDT) status or numerous regulatory-agency CE programs.

May - Hangers and Supports

Visit https://education.aspe.org/RLE to register

Brad Fitzsimmons

Vice President Education



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NSF International publishes new criteria for UV technology and test methods as part of NSF/ANSI 55: the American National Standard for ultraviolet microbiological water treatment systems

The joint committee of experts that maintains an NSF International drinking water treatment standard has recently updated it to allow a more efficient method of treating microorganisms in drinking water. The revision to NSF/ANSI 55: Ultraviolet Microbiological Water Treatment Systems establishes new criteria for use of UV-LED technology for microbial reduction and provides a new test method to certify manufacturer claims.

Treatment systems covered by the standard use ultraviolet light to inactivate or kill bacteria, viruses and cysts in microbiologically unsafe water (Class A systems) or to reduce the amount of non-disease-causing bacteria in dis-

infected drinking water (Class B systems).

To schedule an interview with an NSF International expert on standards development or drinking water filtration, contact Fran LeFort at media@nsf.org or +1.734.773.4253.

IAPMO Codes Mobile App Now Available for Download

The International Association of Plumbing and Mechanical Officials (IAPMO) Codes app is now available for download, giving users constant access to their purchased code books on their mobile devices even when they are offline. The free IAPMO Codes app also serves as a vehicle to contact the technical staff about any code questions, apply for technical committees or request information about the code development process.

Those who have already purchased an electronic version of the 2015 or 2018 codes will automatically be able to view their purchased codes

(Continued on page 9)



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on the app by with their login information. Create a free account to receive automatic notifications on the codes development process, committee meetings, and to be engaged in the development process.

The IAPMO Codes app is available in both the iOS and Google Play app stores. Users are able to make annotations and recordings, view the current code development timeline and stay informed by receiving automatic notifications for breaking news, upcoming committee meetings, proposal submission deadlines, and much more.

The codes now available for purchase and use in the app include:

- 2015 and 2018 Uniform Plumbing Code (UPC)
- 2015 and 2018 Uniform Mechanical Code (UMC)
- 2018 National Standards Illustrated Plumbing Code (NSPC)

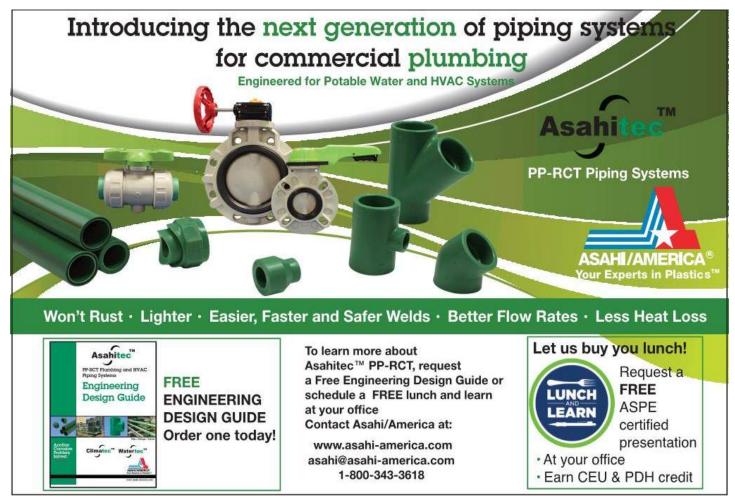
- 2015 Uniform Solar Energy and Hydronics Code (USEHC)
- 2018 Uniform Solar, Hydronics and Geothermal Code (USHGC)
- 2017 Water Efficiency and Sanitation Standard (WE-Stand)
- 2015 and 2018 Uniform Swimming Pool, Spa and Hot Tub Code (USPSHTC)

The 2021 UPC and UMC will become available on the app once they are published early next year.

IAPMO Mobile App

Mike Spengler

Vice President Legislative







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Region 2 Affiliate Report

Returning to Work After CoVID-19? Beware!

The Chinese Wuhan virus (aka CoVID-19) has disrupted our lives more than anyone could have dreamt. Most of us feel like we've been sleeping through a nightmare while awake. As we gain reliable data and insight into this virus, we're beginning to look forward to getting our lives back to normal; let's call it "our new normal". Those of us that enjoy working or need to work to support our loved ones will be returning to our place of employment soon. We'll catch up with our coworkers, exchange happy and sad stories on what we had to do during our stay-home mandate.

What about the water that has been sitting in the pipes in our building and those of our clients while we've been confined to our homes? Over the past years we've done our best to install low flow fixtures wherever and whenever we could. This was noble, it seemed to be the right thing to do. We were "saving water". But whom could have imagined a pandemic like the Wuhan virus and the unintended consequences related to our building water systems? Has anyone addressed this in the emergency response section of their water management plan? I'm guessing not.

A building that has been closed for an extended period or has had limited access is most at risk to the people returning to that facility. Reduction in building water usage creates hazardous conditions ripe for bacteria growth, other pathogens and corrosion concerns.

Plumbing systems and associated equipment like cooling towers, pools, decorative fountains, hot tubs, ice machines, drinking fountains, bottle fillers, and kitchen equipment are just a few of the locations you must pay attention to. Going around the building and flushing a few fixtures will not minimize problems that lurk in these pipes. There is a sequence to flushing that should be executed correctly and it starts with a full understanding of the building water system and the risks associated at every change of di-

rection and usage.

If there hasn't been a continuous call for water at a level that the building was designed for, then there is an increased risk that the floor drains and trench drains may have dried out. This could lead to sewer gases entering the built environment.

Water sitting in pipes also gives way to leaching of chemicals like lead. LEAD? We haven't added lead to building plumbing systems since 2014! Maybe so, but how many buildings do you know of in your local area that were designed and built before 2014? Unless you're in a brandnew city, then the answer is most all of them.

Here is more to think about. If your building is near a residential community, then chances are the municipal water lines feeding that area have seen higher than normal demand. Not bad. But what if your facility is in a commercial/industrial park and the entire area has been vacant for 1-2 months. That entire area has not had a call for water. When the demand ramps up, then the biofilm and sediment that has accumulated in those lines will be stirred up and make their way into your building too. You should consider coordinating with your municipality to flush the fire hydrants before you begin to bring your building back online!

The industry is gathering plenty of data on the dilemmas poised by this pandemic and guidelines are being written to address these problems. The CDC and the Washington State Department of Health have created good reference material. I know AWWA, ASPE and NSF are working together to push out more information. ASHRAE is putting a task force together to develop an HVAC response to buildings with low occupancy or buildings that are unoccupied.

Lessons learned during CoVID-19 will be referenced by plumbing and mechanical engineers forever. In the meantime, contact me and I can send you a nice 1-page printable PDF to post for quick reference on this topic.

Dann Holmes – ASPE Region 2 Affiliate Liaison NSF International – r2al@aspe.org

COVID-19 AND ITS EFFECT ON YOUR **BUILDING WATER HEALTH**



Preventing the Amplification of Waterborne Pathogens in Low Occupancy Buildings in Times of National Crises

The critical actions taken to slow and prevent the spread of COVID-19 worldwide, such as physical distancing and temporary shutdowns of businesses, have resulted in an unprecedented decline in the utilization of water in commercial, education, hospitality and manufacturing facilities. While we manage the risks from COVID-19, it is critical that we also control the physical, microbiological and chemical risks associated with low- or non-operating building water systems.

The top risks we see in buildings with low or no utilization during this time are:



Amplification of Legionella

and other waterborne pathogens due to water age



Leaching of lead

and other metals into water distribution systems, causing drinking water quality issues



Expedited corrosion of plumbing components leading to premature pipe failure and unexpected costs for emergency repair



NOT ALL BUILDINGS ARE CREATED EQUAL

Since each building and the combination of water systems is unique, it is critical to follow site-specific procedures, so your water management strategies prevent additional public health hazards. If you have a water management plan, it should be updated to reflect risk management strategies during COVID-19 operating conditions. If a water management plan is not in place, one should be created.

Which building types are most likely at risk?











Commercial

Educational/Cultural

Hospitality

Manufacturing

Medical

PRACTICAL STEPS FOR RISK PREVENTION

There are several practical steps that can be taken to help prevent risks from amplifying in your building:

- (1) Keep water flowing to reduce water age
- 2 Strategically monitor disinfectant residuals
- (3) Maintain routine treatment of cooling towers and other aerosol-generating water systems
- (a) Control water temperature ranges to reduce amplification of Legionella and other waterborne pathogens
- Put in place water quality monitoring strategies (disinfectant residual, pH, temperature, microbiological analysis)
- 6 Keep your records updated and defensible (verification and validation)
- continuity plans. Prior to returning to normal service, a site-specific plan for evaluating and documenting the safety of water systems must be prepared.



Acting now will help control amplification of risks during COVID-19 operations and expedite your building returning to normal operations knowing waterborne disease and lead exposure risks have been properly managed.

For more information about how NSF's building water health experts can help you minimize the risks associated with all water systems in your buildings or facilities during these uncertain times, email us at buildingwaterhealth@nst.org.



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Officers

President
Bill Deardurff, CPD
Dynamix Engineering
855 Grandview Ave.
Columbus, Ohio 43215
614-443-1178 Fax: 614-443-1594
bdeardurff@dynamix-ltd.com

Vice President, Technical Mike Nickoson, PE AECOM 277 West Nationwide Blvd Columbus, Ohio 43215 614-484-4500 mike.nickoson@aecom.com

Vice President, Education Brad Fitzsimmons, CPD Bruner Corporation 3637 Lacon Road Hilliard, Ohio 43026 614-334-9000 Fax: 614-334-9001 jbfitzsimmons@brunercorp.com

Vice President, Legislative Michael Spengler, PE Dynamix Engineering 855 Grandview Ave. Columbus, Ohio 43215 614-443-1178 Fax: 614-443-1594 mspengler@dynamix-ltd.com

Vice President, Membership Jason Plageman Disney-McLane 627 Euclaire Avenue Bexley, Ohio 43209 614-989-7662 jasonp@disney-mclane.com

Treasurer Hanse Cromer Steffens-Shultz, Inc. 525 Industrial Mile Road Columbus, Ohio 43228 614-274-5515 Fax: 614-274-0126 hcromer@steffens-shultz.com

Administrative Secretary
Kevin McGovern
Kevin McGovern & Associates
4245 Dilomacy Drive
Columbus, Ohio 43228
614-481-8182 Fax: 614-481-0734
kevin@kmahvac.com

Corresponding Secretary
Greg Hochstetler, PE, LEED AP
Speer Mechanical
5255 Sinclair Road
Columbus, Ohio 43229
614-261-6331 Fax 614-261-6330
ghochstetler@speermechanical.com

Affiliate Liaison
Tim Gleich
BWA South Co. Inc
4501 Sutphen Ct
Hilliard, Ohio 43026
614-876-2477 Fax 614-876-0238
timg@bwasouth.com

AYP Liaison
Paul Coyne
Limbach Company
822 Cleveland Ave.
Columbus, Ohio 43201

ASPE CENTRAL OHIO CHAPTER 2019-2020 MEETING and EVENT SCHEDULE

September 9, 2019	Upcoming changes and Indirect
	Connections
October 8, 2019	Joint ASPE/MCACO/ASHRAE/
	SFPE Meeting
October 14, 2019	Legionella Control thru Water Flow and
	Temperature (Venturi Valves)
November 11, 2019	Domestic Water Heating Using Heat
	Pumps
December 9, 2019	Fuel Oil Systems
January 13, 2020	Professional Liability
February 10, 2020	Accessibility for All (ADA Guidelines for
	Plumbing Fixtures)
March 9, 2020	Basics of Safety Showers and Eyewashes
April 13, 2020	Canceled
May 11, 2020	Venting Fundamentals
July 29, 2020	ASPE Golf Outing

The Central Ohio chapter of ASPE newsletter is published as a forum for its members. Opinions expressed herein do not necessarily reflect those of the society, the Central Ohio chapter or its editors.

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