

The Anthracite Chapter

NEWS

January 2021

ASHRAE - Shaping Tomorrow's Built Environment Today

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President's Message

Hello ASHRAE members and friends!

I hope that everyone was able to enjoy the holidays, even though very different this year for most us – I'm sure. I was eager to welcome a new year and say goodbye to 2020. I think we can look forward to better days ahead soon! Our January chapter meeting will again be virtual. I expect that the meetings will remain virtual for the next couple of months.

Our speaker this month is Hank Adams. Hank will be presenting a new hot water piping design manual – Pipe Up!. Please see meeting information on the next page. Don't hesitate to contact me if there are any questions, or issues, accessing the meeting.

Soon it will be time to form our nominating committee for next year's chapter officers and committees. If you would like to help with nominations and be part of the committee, please reach out to any of our chapter officers or chairs. Also, if you would like to get more involved in the chapter, don't hesitate to reach out to me, or any of our chapter officers or chairs.

Best regards,

Michael Mecchi

Anthracite ASHRAE President 2020-2021

New! ashrae anthracite



Chapter Website: http://anthracite.ashraechapters.org

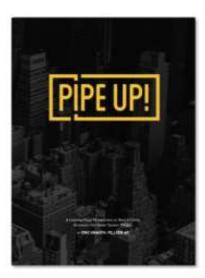
ASHRAE ANTHRACITE CHAPTER MEETING

Tuesday January 19, 2021 At Noon, ET

(Virtual Presentation)

PIPE UP! - HOT WATER PIPING DESIGN MANUAL

- Provides industry proven recommendations for hot water design methodologies including velocities, system temperatures, and pipe routing considerations
- Details the process of calculating system heat loss
- Discusses sizing of system components (e.g. pipe, pumps)
- Provides information on supply and recirculation for multi-pressure zoned systems
- Details for the need for mixing valves and the codes and standards associated to them



 $BTU/h = 500 \cdot gpm \cdot \Delta t$

$$\mathbf{q} = \frac{\mathbf{t}_1 - \mathbf{t}_0}{\left(\frac{\ln\left(\frac{\Gamma_2}{\Gamma_1}\right)}{2 \cdot \pi \cdot \mathbf{k}_1}\right)_{\text{pripe}} + \left(\frac{\ln\left(\frac{\Gamma_2}{\Gamma_2}\right)}{2 \cdot \pi \cdot \mathbf{k}_2}\right)_{\text{insulation}} + \text{SFR}} \cdot \mathbf{L}$$

Presented by

Hank Adams

Hank Adams is the North American Director of Hospitality for Armstrong International. Hank graduated from Bluefield State College with a degree in engineering. Prior to his current role of NA Director of Hospitality, Hank was a Regional Manager for Armstrong since 2017 and a Manufacturer's Representative since 2001 being involved with steam, humidification and domestic hot water systems in the New York City Metro area as well as in the MD/DC/VA area. Throughout his entire career with Armstrong, his primary focus has been in the Institutional markets, mainly Healthcare, Hospitality and Government.

There is no charge for this event, but you must RSVP to c134@ashrae.net with "Anthracite Chapter January 19th Meeting" in the subject line to receive the Go to Meeting invitation

A Certificate of Attendance will be sent to all attendees

NEWS and Notes

Membership News

Welcome to our new members: Brian Flynn, Mericle Commercial Real Estate Services, and Steve Doggett, J.F. O'Hora.

If your ASHRAE membership has expired, we would like to encourage you to renew your membership. Renewing is easy:

- Login to ashrae.org
- Click Join or Login
- Renew your membership (remember to select our chapter for local dues)

If you are currently experiencing hardship, especially with the currently COVID-19 pandemic, please contact our Member Services Department at members@ashrae.org . One of our Member Services Representatives will assist you in determining your hardship case and provide guidance with respect to an adequate adjustment to your dues and other member benefits for the 2020-2021 Society Year. We want to encourage you to take full advantage of the benefits ASHRAE has to offer. Membership benefits include discounts and online access to ASHRAE publications, an annual copy of the ASHRAE Handbook, the monthly ASHRAE Journal and HPB Magazine, discounts on continuing education opportunities, conferences and much more.

Sponsor the NEWS

Thank you to those who have provided sponsorship for the 'NEWS'. If you haven't yet paid, please contact our treasurer, Linda Montville. If you are not currently a sponsor and would like to have your business card added to our sponsors page, please contact newsletter editor Michael Mecchi c134@ashrae.net Sponsors will be recognized in each issue of the NEWS. The suggested donation is \$50 for the entire year.

CRC 2022 Volunteers

Thank you to those members who have volunteered to help the chapter host the Chapters Regional Conference (CRC) in 2022! We will be looking to have a kickoff meeting in next couple of weeks. **WE STILL NEED MORE HELP!** If you are willing and able to serve on the CRC Planning Committee, please reach out to any chapter officer, or board of governors member, to be part of the team to help make the CRC a success.

NEWS and Notes

Technology Corner

Do I Need Fire or Smoke Dampers?!......

One of the most common questions heard from engineers, contractors, and architects alike. I used to always find it interesting that such a simple product can strike fear and terror within so many people with diverse construction backgrounds. It wasn't until getting more involved in life-safety systems some ten years ago did I truly have an appreciation for the barbaric maze of code and standard references which dictate their use. The fact of the matter is, there is a large number of variables that need to be considered such as:

- 1. Building Size and Occupancy Group
- 2. Building Height
- 3. Construction Type
- 4. Sprinkler and Fire Alarm
- 5. Duct Routing
- 6. Air Terminal Placement
- 7. Floor Plans and Egress Paths

Oh right, then there's:

- 1. Fire Partitions
- 2. Fire Barriers
- 3. Fire Walls
- 4. All the same as above but replace the word "fire" with "smoke"

Now consider all the different combinations of the above and we can quickly see that the subject is a bit hairy. To be able to productively analyze an installation and make a determination, familiarity with the International Building Code "Chapter 7 - Fire and Smoke Protection Features" can go a long way and is a great place to start.

Think in terms of how the system can add to or reduce the difficulty of evacuation during a fire event as well as fire fighter access. You'll find most of the requirements and exceptions, while deeply buried in some cases, are surprisingly intuitive (which isn't that common with code and regulation as we all know). Here are some quick tips:

- 1. You run into fire/smoke barriers much more than fire/smoke walls. The requirements are vastly different so get familiar with their definitions within the Building Code. Also note where you can use 1-1/2 hour rated fire dampers vs. 3 hour rated dampers.
- 2. Fire dampers are much cheaper than smoke dampers and fairly inexpensive items.
- 3. If I had a dime every time an electrical engineer asked if we had fire dampers on the job.....they don't need power.
- 4. Smoke dampers and combination fire smoke dampers need power, fire alarm connection and control connections. They can also be specified with their own detectors. But make sure to ask the fire alarm folks if they want it specified with the damper. On addressable fire alarm systems (pretty much all of them) an addressable input module (by the alarm system provider is still required to be connected to the dry contact.

- 5. Use spring loaded dynamic fire dampers to assure proper closure
- 6. Note mounting position as well as access requirements. These vary by type, model and manufacturer.
- 7. Smoke dampers required test switches and indicator lights are a good idea for quick position verification. These are readily available accessories that can be specified.
- 8. Specify adjustable high-pressure switches to de-energize fans when systems have fire dampers in mains. Check your fan curve max static at zero flow (for a damper at or near the unit discharge and compare to your duct construction pressure class specification. Use a low-pressure switch for systems with dampers in the return mains.

In closing, the answer to the question "Do I Need Fire/Smoke Dampers" is almost always.....

"Lemme get back to you on that...."

AMCA has a collection of technical papers and articles which they've compiled to help navigate these sheet metal terror devices found at the link below.

https://www.amca.org/assets/resources/public/userfiles/file/FireSmokeDamperCompendiumRevised62215.pdf

Thanks, and Stay Safe!

If you have a technical article that you would like to see included in a future edition of the *NEWS*, *p*lease submit articles to CTTC Chair Ryan Wanko c134prg@ashrae.net for consideration.

Stranger Things, ASHRAE Edition

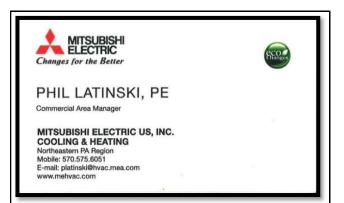
Not sure why they needed to direct the airflow from the condenser fan, but it's a beauty!



Stranger Things Corner

Please submit photos or stories to Newsletter Editor, Michael Mecchi (<u>c134@ashrae.net</u>) for consideration to be included in future editions.

Thank you to Our Sponsors!





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ANTHRACITE CHAPTER MEETINGS & EVENTS 2020-21

Date	Theme	Program	Speaker
Sept. 15		Golf Outing	
Oct. 20	Research Promotion/ Donor Recognition	Flow Measurement	Jon Zoppa
Nov. 17	Students/YEA	Pressure Booster Systems for Plumbing Applications	TBD
December	Family Night	No Meeting	
Jan. 19	Research Promotion	Pipe Up	TBD
Feb. 9-11	Winter Conference	2021 ASHRAE Virtual Winter Conference	
Feb. 16	Engineer's Week Joint Meeting w/ PSPE	TBD	TBD
Mar. 16	Nominating Night Joint Mtg. w/ SMACNA	TBD	TBD
April 20	Students/Membership	TBD	TBD
	ASHRAE Webcast	TBD	TBD
May 18	Past-Presidents	TBD	TBD
Jun. 15	Fun & Fellowship	Mark A. Hagan, PE Memorial Golf Outing	
	Fun & Research Promotion	TBD	
Aug.	Chapters Regional Conf.	2021 Region III CRC	

^{*}ASHRAE Distinguished Lecturer

ASHRAE MISSION

 To advance the arts and sciences of heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world.

ASHRAE VISION

• ASHRAE will be the global leader, the foremost source of technical and educational information, and the primary provider of opportunity for professional growth in the arts and sciences of heating, ventilating, air conditioning and refrigerating.

The Anthracite Chapter NEWS

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