



March 2021

Pile of Bones

Published by the Regina Chapter of ASHRAE

President's Message

By Cailin Noll

Spring is (hopefully) here! I hope the Regina ASHRAE Chapter members are getting outside and enjoying the weather.

The ASHRAE BOG will be gathering in the next month or so to determine what next year might look like. At this point, things are still fairly uncertain so if you have any opinions or suggestions on how best we move forward, please reach out. Specifically, we will be discussing the ASHRAE Golf Tournament, membership fees, and in-person meetings.

Any member feedback is greatly appreciated.

Thank you.

ASHRAE Regina Chapter

Meeting Date – Tuesday March 9th, 2021

Time – 12:00pm – 12:50pm
Presentation,

12:50pm – 1:00pm Chapter Meeting

Presentation – Chuck Gulledge - ASHRAE Society President

Discussion about ASHRAE Society 2020 Presidential Address

Login Information:

<https://global.gotomeeting.com/join/208612085>

Call in option:

Canada: +1 (647)497-9391

Access Code: 208-612-085



Regina
Chapter

Vice President's Message

By Carla Drager

This is a very exciting month for our Regina Chapter as we have the honor of virtually hosting the President of ASHRAE, Charles Gulledge. Please join us on Tuesday March 9th for a noon hour presentation and discussion. Please see biography and presentation information below:

Charles “Chuck” E. Gulledge III, P.E., HBDP, LEED AP 2020-21 ASHRAE President

Charles E. Gulledge III, P.E., HBDP, LEED AP, Fellow ASHRAE, is ASHRAE’s President for the 2020-21 term. Gulledge previously served on the ASHRAE Board of Directors as president-elect, treasurer, vice president and director-at-large.



For his time and dedication to ASHRAE and the industry, he is the recipient of numerous awards including the Exceptional Service Award, Distinguished Service Award, Chapter Service Award, Regional Award of Merit, two ASHRAE Technology Awards and the Dan Mills Technology Award.

His theme for the 2020-21 ASHRAE Society Year is “*The ASHRAE Digital Lighthouse and Industry 4.0.*”

“Why should we engage in digital transformation? To gain a competitive advantage amongst our peers, position ourselves as the go-to resource for clients, improve margins, provide greater value, and attract and retain a digitally skilled workforce.”

In addition to his time served on the Board of Directors, Gulledge has served as chair of the Members Council and the President-Elect Advisory Committee, chair of the Finance Committee, chair of the Standards Membership Ad Hoc Committee, chair of the Development Committee for Fundraising, and as an ASHRAE Distinguished Lecturer. He has held ASHRAE Society-level leadership roles on many standing committees, technical committees, and presidential ad hoc committees.

Gulledge’s theme focuses on reimagining the building industry and ASHRAE’s

place in it by integrating not only industry segments, but also technology.

“Digital transformation is not simply associated with adopting new technical solutions. Knowledge needs to be captured and linked in such a way that ALL relevant stakeholders’ benefit. Doing so requires understanding of how to collect, store, and analyze data; so that it is insightful and actionable.”

In addition to his contributions to ASHRAE, Gulledge’s career in HVAC spans over 36 years. He entered the industry as an engineer-in-training with Parsons Brinckerhoff Quade & Douglas, working on transit system infrastructure, vehicular tunnels, and moveable swing-span bridges. Over his career, he has served the built world in the roles of a consulting engineer, municipal owner and design-build contractor. Gulledge is currently a Senior Mechanical Engineer with Environmental Air Systems, LLC. He is registered as a professional engineer in the states of North Carolina, Georgia, Kentucky, South Carolina, Alabama and Virginia.

Gulledge’s comprehensive design, construction and operational portfolio covers a variety of market sectors; including transportation, commercial, educational, institutional, lodging, sports, mission critical, life sciences, healthcare, pharmaceutical, manufacturing, industrial, archival, historical, and hospitality.

Gulledge is a 1983 graduate of North Carolina State University with a Bachelor of Science in Mechanical Engineering.

Look forward to seeing everyone.

Student Activities Chair

By Marla Torwalt

Just a reminder that the deadline for the Don Bell Scholarship is March 31 so if you are or know anyone in high school, trade school, technology or engineering looking to go into a career in HVAC please encourage them to apply.

Thanks!

Research Promotion Chair

By Pierre-André Ranger

Hi everyone,

I hope we are all staying safe while waiting for the weather to improve. Sunny days are coming! For those of you who are wondering what your ASHRAE Research donations go to, I'd like you to look at the current ASHRAE covid page. All of the research ASHRAE has funded that is related to infection control, was funded by donations like yours. Please take a look, the information is updated regularly as more knowledge is ascertained. This is a good example of the value of our organization.

COVID-19: Resources Available to Address Concerns ([ashrae.org](https://www.ashrae.org))

Thanks again for supporting ASHRAE.

ASHRAE Issues Statements on Relationship Between COVID-19 and HVAC in Buildings

UVGI Systems

There is a lot of ASHRAE (and others) guidance on ultraviolet (UV) technology for the built environment.

Please refer to some of the documentation to determine the best application for your building or systems:

Filtration and Disinfection Guidance on the ASHRAE COVID-19 site
Chapters in ASHRAE Handbook

2019 Applications - Chapter 62:
ULTRAVIOLET AIR AND SURFACE TREATMENT ([I-P](#) or [SI](#))

2016 Systems and Equipment - Chapter 17:
ULTRAVIOLET LAMP SYSTEMS ([I-P](#) or [SI](#))

ASHRAE Journal article: [Ultraviolet Germicidal Irradiation - Current Best Practices \(2008, Martin et al\)](#)

For upper room systems –[NIOSH guidelines \(2009\)](#).

For more information, see the UVGI Systems Guide:
<https://www.ashrae.org/file%20library/technical%20resources/covid-19/martin.pdf>

Bipolar Ionization and other Emerging Technologies

ASHRAE consulted with CDC regarding the use of Bipolar Ionization and other emerging technologies and received the following guidance:

"CDC does not provide recommendations for, or against, any manufacturer or manufacturer's product.

While bi-polar ionization has been around for decades, the technology has matured and many of the earlier potential safety concerns are reportedly now resolved. If you are considering the acquisition of bi-polar ionization equipment, you will want to be sure that the equipment meets UL 2998 standard certification (Environmental Claim Validation Procedure (ECVP) for Zero Ozone Emissions from Air Cleaners) which is intended to validate that no harmful levels of ozone are produced.

Relative to many other air cleaning or disinfection technologies, needlepoint bi-polar ionization has a less-documented track record in regards to cleaning/disinfecting large and fast volumes of moving air within heating, ventilation, and air conditioning (HVAC) systems. This is not to imply that the technology doesn't work as advertised, only that in the absence of an established body of evidence reflecting proven efficacy under as-used conditions, the technology is still considered by many to be an "emerging technology".

As with all emerging technologies, consumers are encouraged to exercise caution and to do their homework. Consumers should research the technology, attempting to match any specific claims against the consumer's intended use. Consumers should request efficacy performance data that quantitatively demonstrates a clear protective benefit under conditions consistent with those for which the consumer is intending to apply the technology. Preferably, the documented performance data under as-used conditions should be available from multiple sources, some of which should be independent, third party sources."

Heating, Ventilating & Air-Conditioning

Where semi-annual / annual scheduled maintenance on the equipment can be performed safely, do not defer this maintenance cycle. Where worker safety could be at risk, consider deferment of semi-annual / annual maintenance on the equipment up to 60 days.

The following are recommended as minimum verification/checks to be performed:

Boilers (Monthly):

For systems with Steam Boilers, develop a schedule that provides minimum supervision on-site.

Perform chemical testing of system water. Verify water treatment target levels are being maintained.

For systems using fuel oil

Check fuel pump for proper operation.

Inspect fuel filter; clean and verify proper operation.

For systems using natural gas

Check gas pressure, gas valve operation, and combustion fan operation.

Check for evidence of leakage of fuel supply, heat transfer fluid, and flue gas.

Verify proper operation of safety devices per manufacturer's recommendations.

Chillers (Monthly):

Perform chemical testing of system water. Verify water treatment target levels are being maintained.

Check control system and devices for evidence of improper operation.

Check variable-frequency drives for proper operation.

Air Cooled Chillers:

Check refrigerant system for evidence of leaks

Check/clean fan blades and fan housing

Check/clean for fin damage

Check for proper fluid flow and for fluid leaks

Water Cooled Chillers:

Check refrigerant system for evidence of leaks

Check for proper fluid flow and for fluid leaks

Check compressor oil level and/or pressure on refrigerant systems having oil level and/or pressure measurement means

Cooling Towers and Evaporative-Cooled Devices (Monthly):

Perform chemical testing of system water. Verify water treatment target levels are being maintained.

Check chemical injector device for proper operation

Check conductivity and other sensors for proper readings

Check water system ultraviolet lamp, replace bulbs as needed (if applicable)

Check control system and devices for evidence of improper operation

Check variable-frequency drive for proper operation

Check for proper fluid flow and for fluid leaks

Check for proper damper operation

Inspect pumps and associated electrical components for leaks and normal operation

Steam Distribution Systems (Monthly):

Perform chemical testing of system condensate and feed water

Check piping for leaks

Check steam traps and condensate return units for proper operation

Check safety devices per manufacturer's recommendations

HVAC Water Distribution Systems (Monthly):

Perform chemical testing of system water. Verify water treatment target levels are being maintained.

Check for proper fluid flow and for fluid leaks. If necessary, vent air from system high points and verify backflow preventers and pressure regulating valves on makeup water lines are functioning properly.

Check expansion tanks and bladder type compression tanks have not become waterlogged

Pumps:

Inspect pumps and associated electrical components for proper operation

Check variable-frequency drive for proper operation

Check control system and devices for evidence of improper operation

Air Handling Units (Monthly):

Check for particulate accumulation on filters, replace filter as needed

Check ultraviolet lamp, replace bulbs as needed (If applicable)

Check P-trap

Check control system and devices for evidence of improper operation

Check variable-frequency drive for proper operation

Roof Top Units (Monthly):

Check for particulate accumulation on outside air intake screens and filters,

replace filter as needed

Check ultraviolet lamp, replace bulbs as needed (if applicable)

Check P-trap

Check control system and devices for evidence of improper operation

Check variable-frequency drive for proper operation

Check refrigerant system for leaks

Check for evidence of leaks on gas heat section heat-exchanger surfaces

Check variable-frequency drives. For fans with belt drives, inspect belts and adjust, as necessary

Water-Source Heat Pumps (Monthly):

Check for particulate accumulation on filters, replace filter as needed

Check P-trap

Check control system and devices for evidence of improper operation

FOR MORE INFORMATION VISIT: <https://www.ashrae.org/technical-resources/building-readiness#epidemic>

Meeting - Tuesday, March 9th , 2021

Time – 12:00 – 12:50 presentation

12:40 – 1:00 Regina Chapter

Presenter – Chuck Gullede (ASHRAE Society President)

Topic – ASHRAE Society 2020 Presidential Address

Location: GoTo Meeting - Online

<https://global.gotomeeting.com/join/208612085>

Access Code: 208-612-085

Dial In Using your Phone: US - [+1 \(571\) 317-3129](tel:+15713173129) ; Canada - [+1 \(647\) 497-9391](tel:+16474979391)

AGENDA - TBD

Next Meeting in April 2021

Topic: TBD

Date & Time TBD

Other Chapter Meetings will be announced in future newsletter

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ASHRAE Regina Chapter – Pile of Bones – 2021-03-03

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