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
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 if 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)

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 quantitively 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](https://www.ashrae.org/technical-resources/building-readiness#epidemic)
2020-2021 Meetings and Events

Meeting - Tuesday, March 9th, 2021

Time – 12:00 – 12:50 presentation
   12:40 – 1:00 Regina Chapter

Presenter – Chuck Gulledge (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; Canada - +1 (647) 497-9391

AGENDA - TBD

Next Meeting in April 2021
   Topic: TBD
   Date & Time TBD

Other Chapter Meetings will be announced in future newsletter
2020-2021 ASHRAE Regina Chapter Board of Governors

President
Cailin MacPherson
MacPherson Engineering Inc.
c.noll@mac-eng.ca

Past President & Research Promotion
Pierre-André Ranger
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Vice President & Programs Chair
Carla Drager
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Historian / Webpage

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YEA (Young Engineers in ASHRAE) Chair
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## 2020-2021 ASHRAE Society Executive

### Executive Committee

**President**
Charles E. Gulledge III  
Greensboro, North Carolina

**Vice President**
Donald L Brandt  
Phoenix, Arizona

**President-Elect**
Michael C.A. Schwedler  
La Crosse, Wisconsin

**Vice President**
Tim McGinn  
Calgary, Alberta

**Treasurer**
Farooq Mehboob  
Karachi, Pakistan

**Vice President**
Bill McQuade  
New Cumberland, Pennsylvania

**Vice President**
Bill Dean  
Saskatoon, Saskatchewan

### Directors – at – large

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<thead>
<tr>
<th>Name</th>
<th>City, Country</th>
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<tbody>
<tr>
<td>Wade Conlan</td>
<td>Maitland, FL</td>
</tr>
<tr>
<td>Jaap Hogeling</td>
<td>Leiden, Netherlands</td>
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<tr>
<td>Kenneth Fulk</td>
<td>Allen, TX</td>
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<tr>
<td>Sarah Maston</td>
<td>Hudson, Massachusetts</td>
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<td>Katherine Hammack</td>
<td>Alexandria, Virginia</td>
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<td>Adrienne Thomle</td>
<td>Reno, NV</td>
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<tr>
<td>Kelly Cramm</td>
<td>Lenexa, Kansas</td>
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<tr>
<td>Chandra Sekhar</td>
<td>Singapore</td>
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<tr>
<td>Ashish Rakheja</td>
<td>Noida Uttar Pradesh, India</td>
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# 2020-2021 ASHRAE Regional Executive

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<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>Director and Regional Chair</td>
<td>Russell Lavitt</td>
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<tr>
<td>Regional Members Council Representative</td>
<td>Eileen Jensen</td>
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<tr>
<td>Chapter Technology Transfer RVC</td>
<td>Janice Peterson</td>
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<tr>
<td>Student Activities RVC</td>
<td>Tracy McKeon</td>
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<tr>
<td>Nominating Committee Member</td>
<td>Jeff Hurd</td>
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<tr>
<td>Nominating Committee Alternate</td>
<td>Greg Fluter</td>
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<tr>
<td>RP RVC</td>
<td>Les Pereira</td>
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<tr>
<td>GAC RVC</td>
<td>Daryl Collerman</td>
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<tr>
<td>Regional Historian</td>
<td>Doug LeCren</td>
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<tr>
<td>YEA RVC</td>
<td>Baki Cvijetinovic</td>
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<tr>
<td>Membership Promotion RVC</td>
<td>Louise McKenzie</td>
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<tr>
<td>Regional Treasurer</td>
<td>Norm Grusnick</td>
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