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ASHRAE LONDON CANADA CHAPTER #116

TOPIC:

The Future of Refrigerants

Presenter:

Stephan Kujak, ASHRAE Distinguished Lecturer Trane Technologies Brownsville, MN

Monday June 20th 2022 – 5:00 pm

5:00-6:30 PM — Hosted virtually on 'GoToMeeting'

Cost = \$30.00*

Registration link

*One-time fee for full year of meetings – if you have registered for a previous meeting no action required!

Hosted by ASHRAE London in joint online meeting with ASHRAE Windsor

SAVE THE DATE – ASHRAE London Golf Tournament – Monday September 26th

We have organized the date for this year's annual golf tournament to be on Monday September 26th where we will return to FireRock Golf Club after last years great success. We will of course monitor all covid regulations, but we are looking forward to possibly returning to a "normal" style tournament while adopting some of the items that made the 2021 tournament so enjoyable!

We are currently organizing the day and if any person or company is interested in helping with the day or sponsoring an activity or item, please reach out to any board member!





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June Topic

The Future of Refrigerants

New societal environmental demands to control climate change are driving the development of new regulatory policies to restrict and lower the direct GWP (global warming potential) impact of F-gases. The HVAC&R industry is currently being challenged to invest significant resources to understand the best refrigerants that meet the above requirements. However, there are many uncertainties and challenges given the ever-changing global regulatory environment, within regions, country, state, and sometimes locally by city.

Safe non-flammable low toxicity F-gases allowed for an exponential increase in the standard of living of society through increased food productivity, reduction in heat related deaths, increased worker productivity and migration of people to cities and to hotter climates. The orderly transition from CFCs to HCFCs and HFCs achieved a balance between the societal environmental demands for reduced ozone depletion while continuing to improve the standard of living in developing countries and minimize the societal safety (nonflammable refrigerants) impacts for everyone.

Today designers are being asked to consider new lower direct GWP unsaturated hydrofluorocarbons (HFOs) refrigerants, some of which are slightly flammable under certain conditions, as well as revisiting the application of natural refrigerants, like carbon dioxide, ammonia, hydrocarbons, and water.

This presentation will provide an update on new lower GWP alternatives introduced into the marketplace and will highlight some important considerations, particularly flammability, that engineers, designers, and building owners should keep in mind regarding next-generation refrigerants.

June Presenter

Steve Kujak is the director of Next Generation Refrigerants Research for Trane Technologies (divisions include Trane and ThermoKing). Over the past 29 years, he has been involved in technology development of new refrigerants, absorption chillers and IAQ cleaning technologies Steve has been an author or co-author on 50+ publications related to refrigerants and has 22 patents related to HVAC products.

Steve is a distinguish service member of ASHRAE and is involved in numerous refrigerant safety and use standards used globally by the HVACR industry. He chair of ASHRAE Standard 34 "Designation & Safety Classification of Refrigerants". He is also a member of many ASHRAE Section 3 technical committees related to refrigerants and lubricants and is also a voting member of Refrigeration Committee Technology Committee for Comfort, Process and the Cold Chain (REF-CPCC).



He was awarded the ASHRAE Crosby Field award for highest rated presentation of a technical paper in 2016 and was also awarded the George Briley Refrigeration Committee award twice for best ASHRAE journal article on refrigeration in 2017 and 2018. He is also involved with AHRI and is participating in the Alternate Refrigerant Evaluation Program (AREP) and the ARTI Flammability Research Subcommittee. Steve is the vice-chair for AHRI-700 standard "Specification for Refrigerants" for the past 10 years He has a BS in chemistry from the University of Wisconsin-La Crosse.

His hobbies include outdoors activities, like gardening, fishing, hunting and camping with his family and also tends to his 13.5 kw solar photovoltaic system. Steve participates with local organizations working on environmental sustainability minded projects, like US Fish and Wildlife, community government sustainability initiatives and his local energy cooperative. Steve is a past president for the Friends of the Refuge-Mississippi River Pools 7 & 8 group which supports the US Fish and Wildlife conservation efforts for local Mississippi River wildlife refuges.



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Chapter President's Message

To ASHRAE London Chapter Members,

I am Kate Mayberry, your ASHRAE London Chapter President for 2021/2022. I am a Mechanical Engineer for Strik Baldinelli Moniz Ltd. located in London ON.

These past couple of years has been challenging for all of us and hope that you and your family are in good health and spirits. Thank you to everybody that attended our virtual meetings in 2020/2021! Similar to last year, our typical way of conducting ASHRAE business will be a bit different than previous years, and we will continue with Chapter meetings virtually on Go to Meeting until at least January but most likely will be all year. London and Windsor Chapters will alternate hosting meetings, combining members from both chapters. There are currently 7 meetings being planned for the 2021/2022 year. There will be a one-time fee of \$30 to attend any or all the virtual meetings this year and a sign up form will be sent out shortly. Again this year, we will be taking advantage of the virtual meetings and booking many ASHRAE Distinguished Lecturer speakers.

We have an enthusiastic board of governors/committee chairs with lots of ideas for the year and we always have space for members wanting to join.

If you have any questions, please reach out to the ASHRAE London Chapter Board of Governors. You can also contact me directly at: Kate Mayberry c116@ashrae.net

We are looking forward to a successful year!

From your ASHRAE London Chapter BOG

A Word About Meeting Costs...

As there are no chapter meals that help contribute to the chapter operation and offset some meeting expenses, the chapter still needs some funds due to ongoing expenses such as bank charges, ASHRAE Region 2 dues on behalf of chapter members, and to contribute to ASHRAE Research. The low-cost fee of \$30 will help the ASHRAE London Chapter and board members continue to provide services to the chapter members.

If there are any comments/concerns please reach out to any of the board members, we are happy to receive all feedback.



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Professional Development

Need hours for your professional development requirements? Be sure to attend a chapter meeting. Professional Engineers Ontario requires members to have yearly professional development training recorded through the Practice Evaluation and Knowledge (PEAK) program. Other groups may also require continuing education.

Chapter Upcoming Meetings

Monday June 20th - Chapter Meeting

Hosted by ASHRAE London

*** be sure to check web site for latest information ***
http://LondonCanada.AshraeChapters.org

Society Upcoming Meeting June 25-29 – ASHRAE Annual Conference

- Hosted by ASHRAE Toronto
- For more information click <u>here:</u> <u>https://www.ashrae.org/conferences/2022-annual-conference-toronto</u>
- See below in this newsletter for more information.

Coronavirus COVID-19 Response Resources

ASHRAE has compiled a list of industry reviewed and recommended resources on COVID-19 guidelines and FAQ's. Please follow the below link to access to these resources:

www.ashrae.org/covid19





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Place your business card HERE
Just \$100 for one year
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contact:

Newsletter Editor

Tom Pollard tpollard@execulink.com

Treasurer

Jeff Armstrong jeff.armstrong@trane.com



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ASHRAE London Canada – Chapter Elections

Chapter chair positions are needed to be filled. If you can assist in any chapter operations and functions, please let a current Board Member know.

There are many volunteering opportunities within the London ASHRAE Chapter! The Chapter always welcomes new members who would like to get involved and assist the chapter in any way you are able. If this is of interest, please forward your name to any one of the board of governors. We are currently looking for someone who would be interested in helping organize the 2022 golf tournament as well as people for chair positions. Now is an excellent time to get involved to get a feel for how the organization works and to indicate interest for chair positions next year.

It is a great way to get involved in the industry and grow your professional network. We are a very enthusiastic group and like to keep things efficient and fun!

ASHRAE London Canada – 2023 London CRC

We are in the beginning stages of organizing the 2023 ASHRAE Region CRC. We are still looking for volunteers to help assist with the planning of the event, we need people with past experience of running CRC to help allocate tasks and volunteers effectively. If you are interested and able to help please reach out to any person on the board.

ASHRAE Society Engineering Job Board

The ASHRAE society Engineering job is a publicly accessible job board where all companies can create job postings for HVACR related jobs. The resource is available at https://jobs.ashrae.org/

ASHRAE Annual Meeting in Toronto

June 25-29/2022

Find answers, inspiration, and the latest industry trends through unmatched technical sessions and connecting with peers. Committee meetings, Professional Development Seminars, Technical Sessions, and other events are planned. https://www.ashrae.org/conferences/2022-annual-conference-toronto
Join ASHRAE in Toronto – Early Bird Rates End April 30!

If you are interested in becoming a **monitor** at the annual conference in June, you can sign up here: http://www.torontoashrae.com/event-4772171

ASHRAE Toronto Chapter's 100th Anniversary Celebration

2022 marks the Toronto Chapter's 100th anniversary! Toronto is excited to host the 2022 ASHRAE Annual Conference and the Toronto Host Committee is working hard to provide an experience ASHRAE attendees won't forget.

Celebration will take place at Hart House, a beloved historic structure in downtown Toronto. This expansive outdoor and indoor space combination has a spectacular castle-like feel and views of original stonework and leaded glass windows.

Venue: Hart House, 7 Hart House Cir, Toronto ON M5S 3H3

When: 6:30 PM onwards on Friday, June 24, 2022

Registration: \$80.00

https://torontoashrae.com/event-4726224

http://LondonCanada.AshraeChapters.org

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ASHRAE RESEARCH

Hello ASHRAE London Members,

My name is Raj Deenadayalan and I am your Chapter Research Promotion Chair for this year. Our Research Promotion goal for this year is \$12,500 and look forward to reaching this goal through your continued support.

This year we will be recognizing donors at a RP Donor Recognition meeting by displaying individual and company donors prior to one of the technical presentations. Donors will also be recognized in the monthly newsletter and on the London Chapter website. To donate online please visit: http://www.ashrae.com/donate

Current Donors:

Somers Environmental Products Inc Chorley & Bisset Consulting Engineers

Tom Pollard, Glenn Kernaghan, Jeff Armstrong, Rajarajan Deenadayalan, Richard Hammond, John Xiang, Ibrahim Semhat, Kathleen Mayberry, Christopher Zettler, Andrew Crowley



Contribution Levels	Individual	Company
ASHRAE Honor Roll	\$150 +	\$500 +
Major Donor (Bronze)	\$250 - \$999	\$500 - \$999
Major Donor (Silver)	\$1000 - \$2,499	\$1000 - \$2,499

If any questions, please contact:

Rajarajan Deenadayalan 519-453-9100

rdeenath@drennan.on.ca