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## THE HERRING CHOKER ASHRAE NB/PEI CHAPTER

November 2023

#### **Table of Contents**

- Chapter Announcements
- Monthly Presentation
- Recap of Past Events
- Upcoming Events
- Awards & Scholarships
- · ASHRAE Job Board
- Volunteering
- 2022-2023 Chapter Schedule
- 2022-2023 Board of Governors

## **Chapter Announcements**

#### 1. CORRECTION TO NOVEMBER NEWSLETTER

In the recent version of the newsletter that went out there is a note saying that registration for November's presentation is closed. Please disregard this note as it is a typo. Registration is open until 4pm on Friday, November 10th.

There is still time to register! See you there!

#### 2. Lucy's Engineering Adventure (Fundraiser)

As first announced in the May newsletter, the ASHRAE NB/PEI Chapter is proposing to provide a copy of *Lucy's Engineering Adventure* to every Anglophone K-5 school in New Brunswick and Prince Edward Island; the territories that we serve.

Our goal is to raise \$2,500 to be able to purchase the books. Donations can be

sent by e-transfer to <a href="mailto:treasurerashraenbpei@gmail.com">treasurerashraenbpei@gmail.com</a>, or by mail to the following address:

#### **ASHRAE NB/PEI CHAPTER**

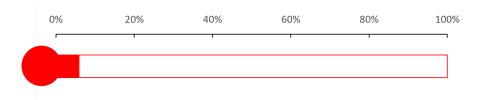
P.O. Box 1629 Moncton New Brunswick E1C9X4

\*Please note on the envelope "Lucy's Engineering Adventure" somewhere on the mailed donation.

Any donation large or small will help to get us to this goal. We appreciate your support!

\*November 6th, 2023 Update: We have raised \$150 / \$2,500

Let's work together to fill up the progress bar below!!



## 3. Request for Assistance: Heat Pump Technology (HPT) Research Study through Annex 60

National Resources Canada are involved with Annex 60, a collaborative program with the IEA, which studies retrofit heat pump systems in non-residential buildings. The outcome of Annex 60 will be to provide high-level guidance for building owners and decision makers to implement heat pump technologies in their own buildings based on the successes and feedback of the industry.

This phase of research is titled "Task 2 - Case Studies of Existing Projects" and is looking for volunteers to simply fill out a high-level case study log on any buildings that meet the criteria. The submissions will be reviewed and those that are identified by Annex 60 as suitable projects will be contacted for more details.

More information can be found at the following links:

Annex 60 website

Research Summary (pdf)

Case Study Log (excel sheet)

If you are interested in participating or have other questions please reach out to <a href="mailto:frederic.genest@NRCan-RNCan.gc.ca">frederic.genest@NRCan-RNCan.gc.ca</a>

#### 4. Did you know we're on social media?!

Follow us on LinkedIn and Facebook to find out about events when they're announced (click the icons below or at the bottom of the newsletter).







## **Monthly Presentation**

November 14th, 5:00PM - 8:00PM AST

\*\*IMPORTANT NOTICE: Our Venue Has Changed This Year. See Below for Details\*\*

## TOPIC: Reducing Carbon Emissions and Achieving Enhanced Indoor Environments in a Portfolio of Buildings

The presentation will provide a roadmap to evaluate the opportunities to reduce the Energy use and Carbon emissions in existing buildings while improving the indoor environment. The presentation will demonstrate several evaluation tools that can be used to prioritize the in initiatives to be implemented in each facility.

Recommended audience: Engineers, contractors, facility managers, building owners, educators, students, sustainability coordinators

## About the Presenter: Darryl Boyce, P.Eng (ASHRAE Distringuished Lecturer)

Darryl K. Boyce, P.Eng., Fellow/Life Member ASHRAE, was the ASHRAE President for the 2019-2020 term. Boyce has previously served on the board of directors as treasurer, vice president, Director and Regional Chair Region 2 and director-at-large.

Boyce is retired and was previously special advisor to the vice-president (Finance and Administration) – and the assistant vice president of facilities management and planning – at Carleton University in Ottawa, Ontario

Throughout his time spent with ASHRAE and in the HVAC industry, Boyce has worked on various projects to increase energy efficiency. His most recent projects include the SNOLAB project in Sudbury, Ontario, where he is responsible for the design and construction of a world class research facility for underground science.

Boyce is a 1982 graduate of the University of Alberta with a Bachelor of Science in Engineering and earned his Engineering Diploma from the British

Columbia Institute of Technology in 1973.



## **Event Details:**

#### When:

November 14th, 2023

### Location:

**Meeting Room D** (Moncton Coliseum Arena Complex) - 377 Killam Dr, Moncton, NB

### Agenda:

5:00pm - 6:00pm: Social Hour

6:00pm - 7:00pm: Presentation

7:00pm: Dinner is Served

### Pricing:

ASHRAE Members - \$30 Non-Members - \$55 Students & Retirees - \$20 Presentation Only (No Meal) - \$0

### Meal:

The meal will be Chef's Choice Buffet.

\*Please indicate any dietary restrictions when registering

\*\*Please RSVP through EventBrite by 4pm on Friday, November 10th\*\*

## **Click Here to Register**



## **Recap of Past Events**

In Case You Missed It...

## October Meeting (VRF and A2L Refrigerants)

On Tuesday, October 17th, we were visited by Shawn Slaunwhite of Daikin Applied to update us on the ongoing refrigerant transition. More specifically the transition of high pressure refrigerants used in VRF (Variable Refrigerant Flow) systems.

As we're all aware of by now, we are midway through an industry-wide transition to newer and environmentally friendlier refrigerants. This is the second major refrigerant transition coming a few decades after the first initiative to phase out refrigerants that were depleting the Earth's ozone layer. The focus of the current transition is on reducing the global warming effect of refrigerants (a characteristic quantified in terms of GWP; Global Warming Potential).

Shawn explained to us how this transition to low-GWP refrigerants for use in high pressure applications (such as VRF) has not been an easy one. In order to achieve the required GWP some trade offs had to be made. That is to say the new refrigerant alternatives to R-410A will be slightly flammable at the benefit of having a lower GWP while also maintaining low toxicity and relatively close capacity and efficiencies compared to the R-410A baseline.

Flammable refrigerants can evoke concern and for this reason it's worth drilling into what this really means. First, there are varying degrees to which something can be flammable. ASHRAE has 3 flammability classes ranging from A1 being non-flammable to A3 being highly flammable. Based on the required input energy to ignite this refrigerant and the burn velocity once ignited, ASHRAE has placed these new refrigerants in the A2 class on the lower end. In fact, a new category was created to differentiate it from the typical A2's and this class is termed A2L which means low flammability.

Secondly, and maybe most importantly to designers and installers in the industry, there will be new code updates to the current ASHRAE 15, ASHRAE 34 and local standards which will mandate the use of refrigerant detection and mitigation devices when using A2L refrigerant. Until now most stanards defined a Refrigerant Concentration Limit (RCL) which is how much volume of refrigerant is acceptable to leak into a room wiithout becoming a hazard to the occupants. Typically the RCL was set with regards to toxicity and asphyxiation potential. However, with A2L refrigerants the RCL is set based on its flammability limits. The result is a smaller RCL allowance than our current refrigerant options. What this means is extra refrigeration detection and mitigation measures will need to be considered in new designs involving A2L refrigerants.

At this time low GWP restrictions on VRF systems may be taking effect as soon as January 1st, 2025. This gives us a little over a year to plan for the future. But while this may seem like a daunting challenge that lies ahead, it may be a relief to know that we are not the pioneers of this new transition; our counter parts in Europe have been already been a step ahead of us and have made the leap to low GWP refrigerants years ago. It may benefit us to look at what they're doing while our conversations about the refrigerant transition ramp up these next 14 months.

Brandon Cosman, Communications Chair, 2023-2024 Brandon.Cosman@PMCEnergy.ca



Shawn Slaunwhite educating a room of 30 curious minds



M. 506-378-3722

David Simpson, PTech Team Leader, Senior Project Manager Mechanical Engineering David.Simpson@englobecorp.com T. 506-857-2777, 178077

**englobe** 







## Upcoming Events

The Future is Bright

## NB Power Sponsored Training Opportunities

Webinar: Opportunities for Heating Systems, Boilers and Heat Recovery November 21st, 2023: 10:00am-11:30am

Heating for processes and space heating is the largest energy end-use for most facilities, and almost always the largest GHG emitter. This webinar will look at savings opportunities in a logical order, beginning with methods for quantifying this end-use followed by the main characteristics of these systems, along with their limitations and some of their constraints. Next, opportunities to maximize the efficiency of boilers, both operationally and with retrofits will be examined. Finally, the opportunity to recover heat from the many waste heat streams will be explored.

## Click Here to Register

Existing Building Commissioning (EBCx) Essentials Course French Session: November 8th, 2023: 9:00am - 4:30pm English Session: November 15th, 2023: 9:00am - 4:30pm

Discover the untapped potential of your building's assets with this EBCx Essentials course, originally priced at \$625. Now exclusively available to New Brunswick residents for FREE!

This course focuses on practical EBCx methods, real-life success stories, and optimizing efficiency in HVAC and control systems.

- After attending this virtual, 1-day course, you'll be able to:
- · Describe the benefits of EBCx
- · Define the need for EBCx process

- Create a plan for EBCx implementation
- Ensure post-implementation success
- · Ready to enhance your building's efficiency?

Hurry, we only have 20 free access codes available per session. Limited to one code per company.

#### Click here for full course details

To request your exclusive free access code and registration instructions, please email us at <a href="mailto:CEES-SEEC@nbpower.com">CEES-SEEC@nbpower.com</a>.

Advanced Course on Existing Building Commissioning (EBCx)
French Course: December 5-8th, 2023: 9:00am - 4:30pm (Virtual)
English Course: January 22-25th, 2024: 9:00am - 4:30pm (In-Person, Location TBD)

Ready to take a deeper dive in existing building commissioning? The Advanced EBCx course, originally priced at \$1,835, is exclusively available to New Brunswick residents for \$200!

As a process, existing building commissioning (EBCx) is often referred to as taking what you already have and making it better! Interest in Existing Building Commissioning projects has been growing steadily over the years, and it is now recognized as a formidable means to determine which low-cost/no-cost operational improvements may be made to a currently operated building to improve occupant comfort and achieve energy savings. Another facet of Existing Building Commissioning is, it can be conducted as a standalone activity or as part of a renovation/modernisation project.

#### During this 4-day course participants will learn:

- Apply the four-step Existing Building Commissioning process.
- Establish effective methods for detecting problems.
- · Calculate energy and system-based savings calculations.
- · Implement EBCx measures.
- Integrate best practices for ongoing commissioning.

### Click here for full course details

There is limited space to enter this course. To request your seat and registration instructions, please email us at <a href="CEES-SEEC@nbpower.com">CEES-SEEC@nbpower.com</a>.

#### Other Offerings by NB Power:

For a full list of NB Power offerings and to keep current on their upcoming events please visit the following link:

### **NB Power Events and Training**

### The Moncton MEET Show 2024

May 1st and 2nd, 2024 - Moncton Coliseum

The Moncton MEET show is returning in May of 2024. Save the date in your calendar and and stay tuned for more updates as we near the date!

We will have distringuished lecturer, Don Colliver, joining us at the MEET show who will be presenting both days of the show. The topics will be:

Topic 1 – Building Decarbonization Basics

Topic 2 – The Science Behind Climate Change and Decarbonization

The time and date for these topics will be announced closer to the date. For more information on the event please see the <u>Moncton MEET Show website for more details</u>.





## Awards & Scholarships

Step Right Up, Win a Prize!

#### 1. ASHRAE Technology Awards - Chapter Competition

This year, the ASHRAE NB/PEI Chapter will host a Technology Awards Program to recognize innovative projects by Chapter Members.

The ASHRAE Technology Awards recognize members at the Chapter, Regional and Society levels for outstanding design and innovations for effective energy utilization.

The format of competition, deadlines, and judging are determined by the Chapter and will be announced shortly. The short application form (Link: Chapter/Regional Application -- Short Form) may be used for the Chapter competition and the regional competition for projects that move on to the Regional Competition.

Entries can be submitted for each of the following 7 categories:

- Commercial Buildings New, Existing and Existing Building Commissioning (EBCx)
- Institutional Buildings
  - Educational Facilities New, Existing and EBCx
  - Other Institutional New, Existing and EBCx
- Health Care Facilities New, Existing and EBCx
- Industrial Facilities or Processes New, Existing and EBCx
- Public Assembly Facilities New, Existing and EBCx
- Residential Buildings New, Existing and EBCx

The ASHRAE NB/PEI Chapter's first and only Technology Award was awarded to Stephen Tweedie in 1999 for outstanding achievement in energy-efficient building design for the Nova Institution, a Federal women's correctional facility located in Truro, Nova Scotia in the Institutional Buildings category.

ASHRAE Region II, of which the ASHRAE NB/PEI Chapter is a member has a history of winning many Society level awards, and we hope to submit winning projects of our own.

The ASHRAE NB/PEI Chapter will submit one entry for each of the 7 categories listed above to the Regional Competition. See <u>Technology Awards Program (ashrae.org)</u> for more information, or reach out to your Chapter Technology Transfer Committee (CTTC) Chair, <a href="yves.savoie@englobecorp.com">yves.savoie@englobecorp.com</a>.



# ASHRAE Job Board Jobs, jobs, jobs!

The ASHRAE Job Board offers the following benefits for job-seekers:

- Search and apply for relevant jobs quickly and effectively.
- Set up job alerts for immediate notification of job postings matching skills and interests.
- · Anonymous profiles and resume uploads.
- Useful tips and tools for improving job searching effectiveness.
- Single sign-in for ASHRAE members.

#### Employers can:

- Put their positions in front of ASHRAE's unique audience of engineering experts.
- · Manage jobs and applicant activity on the Job Board site.

- Search the ASHRAE Job Board's candidate database.
- · Limit applicants to only those qualified.
- Quickly find the right professionals for their positions.

The Job Board can be found at <a href="www.ashrae.org/jobs">www.ashrae.org/jobs</a>. The Job Board is designed to assist members and other industry professionals along with ASHRAE's student program, Young Engineers in ASHRAE, education and certification programs.



## Volunteering Many Hands Make Light Work!

Are you looking for ways to get involved in your HVAC community? Well look no further! Reach out to any of our BOG members or our Membership Promotion chair and find out how you can get started today! Or better yet come sit in on one of our monthly meetings to get a feel for things and see if it's right for you.

Our Chapter is always looking for volunteers to take on Chair or Co-Chair positions, collaborate on committees, and share feedback and ideas on how we can strive to be better than we were yesterday. Whether you're a consulting engineer, contractor, equipment supplier, property manager, or student we welcome all. By volunteering with ASHRAE you'll get the satisfaction of contributing to a global organization by making local impacts, you'll get to network with a wide range of fellow members of the community, you'll gain the experience of working with a Board of Governors structured organization, and much more!

Reach out to any member from the BOG or to our Membership Promotion Chair: Matthew Peachman [mpeachman@cbcl.ca] to get started!



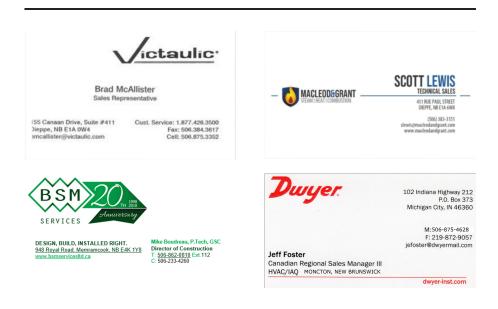


## 2022-2023 Chapter Schedule Can't make this one? Plan for the next meeting!

2023-2024 ASHRAE NB/PEI PROGRAM

Date	Topic	Presenter	Theme	Venue
September 12, 2023	Radon 101	Jeff Leblanc	Government Affairs/	Legends Moncton
			Student Night	Coliseum
October 17, 2023	VRF and the Transition to Slightly	Shawn Slaunwhite	Refrigeration Night	Legends Moncton
	Flammable Refrigerants			Coliseum
November 14, 2023	Reducing Carbon Emissions and Achieving Enhanced Indoor Environments	Darryl Boyce	ТВА	Legends Moncton
				Coliseum
December 12, 2023	Leadership Coaching	Gabriel Basque	Past-Presidents/ Student/	Legends Moncton
			YEA	Coliseum
January 9, 2024	Fire/Smoke Dampers	Phil Duncan	TBA	Legends Moncton
				Coliseum
February 13, 2024	Gas Detection Systems	Belimo	ТВА	Legends Moncton
				Coliseum
March 12, 2024	Acoustics and Barrier Walls	TBA	ТВА	Legends Moncton
Watch 12, 2024	Acoustics and barrier wans	IDA		Coliseum
April 9, 2024	Refrigerant Phase Out	York	ТВА	Legends Moncton
				Coliseum
May 1st and 2nd	Decarbonization	Don Colliver	Decarbonization	Moncton Coliseum
June 11, 2024	ТВА	ТВА	Membership/Tour	ТВА

\*On the scheduled dates above, the BOG meeting will typically begin at 4:00pm and the presentation at 6:00pm. Any changes to these times will be communicated in an email and on the website prior to the date.



## 2022-2023 Board of Governors The Knights of the Roundtable

Role	2023 - 2024 Executive/BOG	
President	Mike Boudreau	Executive
President Elect	TBD	Executive
Vice President	TBD	Executive
Research Promotion Chair	Kevin Clannon	Executive
Treasurer	Dan Boudreau	Executive
Secretary	Kelsey Edgecomb	Executive
Membership Promotion Chair	Matthew Peachman	BOG
Student Activities Chair	John Willden	BOG
Historian	Ryan Gosson	BOG
Chapter Technology Transfer Chair	Yves Savoie	BOG
Newsletter Editor	Brandon Cosman	BOG
Communications Chair	Brandon Cosman	BOG
Grassroots Government Affairs	Roch Couturier	BOG
YEA Chairs	Zach Thorne	BOG
Refrigeration	Vacant	BOG
Golf Tournament Chair	Ken Martin	BOG
Webmaster	Brandon Cosman	BOG
MEET Liason	Ken Martin, Devin Harinarine	BOG
BOG	Kristine Girard	BOG
BOG	Kevin Leger	BOG

## Questions, comments, good HVAC jokes?

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