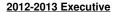


# The Herring Choker

## ASHRAE NB PEI CHAPTER



#### President:

Dwight Scott (506) 204-2820

#### **President Elect:**

Camille Chevarie (506) 857-8708

#### Vice-President:

Kevin Clannon (506) 382-8625

#### Treasurer:

Fréderick Bernard (506) 857-8880

#### Secretary:

Sharlene Innes (506) 857-8788

#### Membership:

Dan Boudreau (506) 857-8880

#### **Research Promotion:**

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#### Newsletter/Website:

Jennifer Chapman (506) 857-8788

#### **YEA Coordinator:**

Kevin Leger (506) 859-7616

#### **Board of Governors:**

Mike Boudreau
Mathieu Breau
Luc Dugas
Devin Harinarine
Eric Leblanc
Ken Martin
Robert McEwen
Christopher Sanderson

The next Chapter meeting is scheduled for **June 11th** at Dumont Hospital Energy Centre.

This month's meeting is a Technical Tour of the new facility.

Time:

4:00 pm

**Location:** 

Meet in the lunch room at the Energy Centre

Parking:

Park at the bottom of Thanet Street. Walk a half block east of

Highfield Street. Enter the plant door facing the hospital.

Dinner:

Optional – we can call ahead for reservations at the Pumphouse,

5 Orange Lane (Dinner and beverages are on your own)

Tour Guides: David McAlister and Frédérik Bernard, MCW Maricor

## **Executive Meeting Notice**

A reminder to the Executive, Board of Governors, and the Committee Chairpersons that the Executive meeting will start at 2:30 PM at MCW Maricor. The meeting will be held in the Conference Room.



Representing:
Baltimore Aircoil of Canada
Division of Baltimore Aircoil Interamerican Corporation

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PRESIDENT

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### MCW Maricor Wins Award for Engineering Excellence

Dr. Georges-L.-Dumont University Hospital Centre Energy Centre

The 2013 Award for Recognition of Engineering Excellence in the Buildings category was presented to MCW Maricor by the Association of Consulting Engineering Companies, New Brunswick Branch.

The award was presented at the annual ACEC-NB Awards Gala. The buildings category includes all engineering related to buildings such as electrical, mechanical, structural, foundations and related engineering systems including systems to control heating, lighting, and energy management.

The Province of New Brunswick Department of Transportation and Infrastructure and the Dr. Georges-L.-Dumont University Hospital Centre are proud to be opening a new power plant to replace the aging existing plant, while simultaneously relocating the facilities power generating systems. This project is called the Energy Centre as it houses the hot and cold energy generating systems for the entire Health Care campus, as well as a new Emergency Power Generating system for electrical energy.

The new heating system includes three new 700 BHP steam boilers, while new centrifugal chillers will provide chilled water for cooling. The new chilled system consists of a 400 ton heat recovery chiller, with 500 and 1000 ton chillers to round out the design load. Diesel Engines will provide electrical energy to the facility for essential systems in case of an emergency.

The Energy Centre is located at the extreme end of the Campus to facilitate future clinical growth, and is connected via a 1300 linear foot tunnel to the main Hospital.

#### **SUMMARY OF MAY 2013 MEETING:**

May meeting was a presentation by Daniel Lauzon, President of NAD Clima of Montreal on High Induction Diffusers. The presentation was attended by 18 participants.

The presentation highlighted the various factors that contribute to the increasing acceptance of the concept of High Induction Diffusers in the North American market place. This concept has been very well accepted and implemented all over Germany and other European markets. The basic difference between the Standard Diffuser and a High Induction diffuser is a helical movement of air which produces a rotation at the output of the diffuser that allows an aspiration (upward movement of air) from the centre of the room to the diffuser. Thus the air moves from bottom to top while the standard diffuser air moves from top to bottom.













**Comfort Factors:** Because of the construction of the diffuser the air from the diffuser:

- Reaches the occupied zone with very low velocity (about 1/3<sup>rd</sup> of standard diffusers)
- The TD in the occupied zone reduces to 0.6 deg C compared to 2.5 deg C with standard diffusers due to high induction rate
- The noise level is reduced in the occupied zone by about 12 to 15 dBA because of the plenum and perforated plate design and with eccentric cylinders.
- Low humidity levels are achieved
- Improvement in IAQ as per ASHRAE Standard 62.1

**Physical Factors:** The plenum, about 13.5" deep with stabilizing plate as well as the eccentric drum design results in:

- Stability of the air as per ASHRAE recommendation
- Improves air flow trajectory so that it does diffuse to the occupants at low velocity
- Does not stagnate on high level or along the walls affecting thermostat readings.

**Construction Cost Economy:** Selecting High Induction Diffusers for a project results in Construction cost savings in many ways:

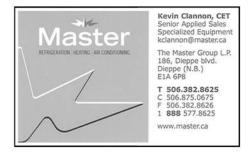
- Total number of High Induction Diffusers required is less than the total number of Standard Diffusers. Even though the total cost of the diffusers is more than the total cost of Standard diffusers the saving is achieved as the labour costs, hardware costs and balancing cost is less resulting in overall reduction.
- Complaints Management Costs are much less as there are less discomfort and therefore less absenteeism, less loss of tenants, less Production Loss.
- Due to reduction potential for about 50% of air volume we can save on Fan Power costs, and duct costs.
- Due to more uniform air movement and non-stagnation there is a potential to save or eliminate baseboard heating which becomes necessary with standard diffusers.

**Energy Savings:** The following factors contribute to a lot of Energy savings:

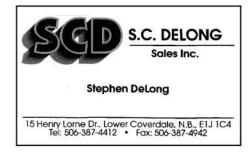
- Reduction of overheated ceiling spaces
- More efficient recovery of Ambient Heat by effective heat recovery from lighting source, space computers
- Low demand for heating as the air movement is homogeneous
- Almost 20% reduction in F A requirements
- Reduction of over ventilation, over cooling & heating

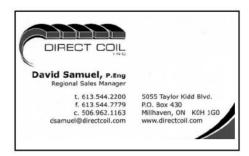
**Potential LEED Points:** Selecting High Induction Diffusers has the potential for scoring many LEED points:

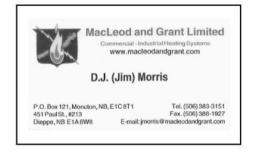
- Atmosphere & Energy Credits: For optimizing the energy performance points possible are 1 to 10
- Qualities of Environment Credits: Increase of effectiveness of ventilation..1 point and Thermal Comfort...1 point (Total 2 points)
- Innovation & Design Process Credit: Optimizing energy performance..1 point and Increasing the effectiveness of ventilation..1 Point (Total 2 points)













#### **Research Promotion Campaign Update**

We've reached the final month of our Research Promotion fundraising campaign, and are pleased to report we have now surpassed our \$9500 goal. A big *THANK YOU!* to all of our donors who have shown their support for ASHRAE research activities. For those wishing to provide donations to this year's campaign, time has not yet run out. The 2012-13 campaign runs through the month of June. We are coming within range of setting a new HIGH for our chapter, as well as exceeding ASHRAE's challenge goal of \$11,600.

Existing donors may wish to top up their donations to receive special ASHRAE recognition. Individuals who donate \$100, or corporations that donate \$150, are placed on the ASHRAE Honour Roll, and will receive a commemorative coin and holder. Those who donate \$250 and above will receive an antique style coin and plaque-style holder, and those who donate \$500 and over will receive a bronze coin and plaque-style holder. Our Chapter also provides special recognition to our Top Ten donors at one of our fall meetings. Anyone wishing to top up a donation to achieve a higher recognition level can either provide an additional cheque, or donate online at the link below.

Our chapter remains in second place in our region's Research Promotion PAOE Points race. PAOE points allow small chapters like NB/PEI, Windsor, and London to compete on an even basis with the larger Toronto and Montreal chapters. With an extra little push, we can push our chapter to the top, and be recognized as the top fundraising chapter in the Eastern Canada region.

#### **PAOE Points Standings**

Windsor	1309	Hamilton	465
NB/PEI	985	Quebec	460
Halifax	545	London	426
Toronto	510	Ottawa	370
Montreal	490		

Please provide all cheques to Rob Hoadley by June 15 to ensure your 2012-13 donation is counted towards this year's campaign. Cheques made out to "ASHRAE Research" can be sent to:

Rob Hoadley Argyll Associates Limited 919 Prospect St – Suite 101 Fredericton NB E3B 2T7

Donors can also submit online: <a href="https://xp20.ashrae.org/secure/researchpromotion/rp.html">https://xp20.ashrae.org/secure/researchpromotion/rp.html</a>. Be sure to indicate on the form that your assigned chapter is NB/PEI. Please send any questions you may have to Rob Hoadley at robert.hoadley@rogers.com.

## SCHOLARSHIPS



Cara Bostwick received a \$1000 ASHRAE Scholarship from the NB/PEI Chapter at a ceremony on May 23, 2013. She is a member of the first graduating class in Building Systems Technology at the New Brunswick Community College – Fredericton Campus. Cara holds a BA degree from the University of New Brunswick, and after working as an office administrator for a construction company, decided to return to school for something more challenging in construction. She will be working with King Construction after graduation. She has lived in Ireland and Australia, and enjoys mountain biking and hiking. She was part of the organizing team for a Cystic Fibrosis fundraiser at her local church. The NB/PEI Chapter salutes Cara Bostwick for her achievements and wishes her success in her new career.

Pictured in the photo (L-R) are:
Heather Hathaway, Regional Director NBCC
Cara Bostwick, Student
Dwight Scott, President, 2012-2013, NB/PEI Chapter
Susan Duff, Department Head, CET Program, NBCC-Fredericton
Tim Smith, BSET Instructor







## **NB/PEI ASHRAE Chapter Meeting Schedule 2012/2013**

#### **Social Events**

**Date:** Saturday, 22 June 2013

**Time:** 5:30 pm

**Location:** Captain Dan's Bar & Grill

Pointe-du-Chêne Wharf

Take Exit 37 from Rte 15 toward Shediac

Turn Left onto Main Street

Turn Right at lights onto Pointe-du-Chêne Road

Captain Dan's Bar & Grill is at the end of the road (2.3 km)

Menu: Seafood Chowder

Steamed Mussels Caesar Salad

1 lb lobster **or** New York Striploin steak

Potato Salad Coleslaw

NB Blueberry Cobbler ½ bottle of wine per person

Cost: \$30 per person

(Please make cheques payable to **ASHRAE NB/PEI Chapter**)

Cheques will be collected at the event

**RSVP:** Please reply to Dwight Scott <u>dwightgscott@gmail.com</u>

Indicate:

• Name of each person attending

• Each person's choice of **lobster** or **steak** 

**Cut Off Date:** Monday, June 17<sup>th</sup> (please don't wait until the last minute!!)











