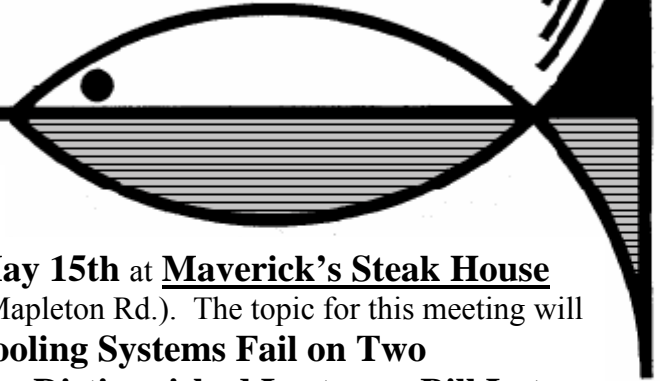




# The Herring Choker

**ASHRAE**  
NB PEI CHAPTER



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## May Meeting

The May meeting is scheduled for **May 15th** at **Maverick's Steak House** Future Inn, 40 Lady Ada Drive (off Mapleton Rd.). The topic for this meeting will be **Geothermal Heating and Cooling Systems Fail on Two Commercial Projects** delivered by **Distinguished Lecturer, Bill Lotz**. The social hour will begin at 5:00 PM with a cash bar. The presentation will follow at 6:00 PM. Dinner will be served at 7:00 PM.

May's meeting is **History Night**.

## Executive Meeting Notice

A reminder to the Executive, Board of Governors, and the Committee Chairpersons that the executive meeting will start at noon at the Construction Association.

## ASHRAE NB/PEI Golf Tournament

It's that time of year again! ASHRAE NB/PEI will once again be hosting our annual golf tournament. Please see page 3 for the registration form. As always, prize donations would be greatly appreciated.

## ASHRAE Green Guide

The [ASHRAE GreenGuide](#) provides guidance to designers of HVAC&R systems in how to participate effectively on design teams charged with producing green buildings. Originally published in 2003, and revised and expanded in 2006, the *ASHRAE GreenGuide* serves as a reference manual for HVAC&R designers, providing them with guidance on green design from project design through construction, operation and maintenance to demolition.

## Subscription Management Reminder

*The Herring Choker* is sent by e-mail and Canada Post shortly before each meeting. Every year we try to update the mailing and phone lists from the ASHRAE headquarters database, but no doubt there are some errors and omissions.

If you are not receiving both versions of *The Herring Choker*, please let Dwight Scott know at 506-882-9093, or [dgscott@nb.sympatico.ca](mailto:dgscott@nb.sympatico.ca)

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**May Abstract:**

**Geothermal Heating and Cooling Systems Fail on Two Commercial Projects**

Two case studies will be presented by William A. Lotz, P.E., a Consulting Engineer from Acton, Maine.

**Speaker:** Mr. Lotz specializes in consulting on moisture and insulation problems in buildings. He has 40+ years experience in building construction; materials technology, and design, and has clients all over North America. Mr. Lotz has published over 250 technical articles in such publications as: ASHRAE Journal, Engineered Systems, RSI, Plant Engineering, Insulation Outlook, ASTM, Engineering News Record and HPAC. Mr. Lotz has a B.S. in Mechanical Engineering from the University of Miami and is a registered Professional Engineer in eight states. Mr. Lotz has been a member of ASHRAE for more than 40 years, is a Life Member and a Fellow.

**Abstract:** The Design-Build contractor made several assumptions that were quite costly. The first project was a retrofit of an 80 room historic resort. The second project was a new 3 story office building. Both projects were in Maine, within 500 feet of the ocean and had the same owner.

The geothermal connections with the earth were multiple 1500 ft. deep open standing column wells. The water quality was poor, brackish and filled with grit. The water to air heat pumps began failing during the first week of operation. The filtering systems installed for grit removal were inadequate and the systems alternatively plugged up resulting in a shut down of the heat pumps or allowed large quantities of granite drilling dust into the system.

There were other problems:

- ◆ Inadequate electrical grounding of the building, resulting in electrolysis of the system
- ◆ Mixed metals in the piping system (copper, bronze, steel, stainless cast iron, cupranickel, etc., resulting in corrosion)
- ◆ Plenum ceiling with combustibles
- ◆ Illegal, combustible vapor barrier
- ◆ Lack of a professional engineer involved in the design
- ◆ Lack of summertime humidity control
- ◆ Well failure with little heat transfer
- ◆ Rapid corrosion failure of the well pumps



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## ASHRAE NB / PEI - 2007 - GOLF TOURNAMENT

**Where:** **Moncton Golf and Country Club**  
**Riverview, New Brunswick - (Supper – Elk’s Club – Moncton)**

**When:** **Thursday, August 9, 2007 (rain or shine)**  
**12:00 noon Shotgun start - Please arrive one hour early**

**Format:** **Team Scramble (3-4 man)**  
**Closest to the Pin and Long Drive Contest**  
**Limited space for 76 golfers so book early!**

**The cost per player is \$75.00, which includes Green Fees, BBQ Steak & Lobster Supper at the Elk’s Club in Moncton, and Long Drive and Closest to the Hole Contests.**

The cost of Golf only is \$45.00. Supper only is \$30.00. Golf carts are mandatory and are included in the cost.

Please mail registration cheque to ASHRAE NB/PEI, Po. Box 1629, Moncton, NB. E1C 9X4 by no later than July 27, 2007. Make cheques payable to “ASHRAE NB/PEI Chapter”

Please arrive at least one hour prior to the shotgun start to sign-in and enjoy a BBQ to Support Junior Golf.


**Please consider this invitation as a request for donated prizes for the tournament.**

**Please advise Mr. Luc Dugas of planned donations. (506) 857-8880.**

We wish to extend a special invitation to our neighboring Nova Scotia Chapter and to our members and friends from Prince Edward Island. Please register no later than July 27, 2007 by faxing this form to:

**Trane Atlantic: Craig Brown Fax: (506) 855-3204**


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## NB/PEI ASHRAE Chapter Meeting Schedule 2006/2007

**May 15, 2007**

History Night

Distinguished Lecturer: Bill Lotz

Topic: Geothermal Heating and Cooling Systems Fail on Two Commercial Projects

**June 12, 2007**

Technical Tour of the Bonté Foods Plant

## ASHRAE, ACCA Publish Load Calculation Standard

ATLANTA - A new standard that establishes minimum requirements for performing load calculations has been published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers. The standard was developed in conjunction with the Air Conditioning Contractors of America (ACCA).

ANSI/ASHRAE/ACCA Standard 183-2007, Peak Cooling and Heating Load Calculations in Buildings Except Low-Rise Residential Buildings, is available for purchase at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore).

Proper load calculations are the first step in any design process, says Chris Wilkins, chair of the committee that wrote the standard. "Efficiency and comfort are only possible if the equipment is selected to match the load."

The standard establishes minimum requirements for building loads that are inclusive of as many procedural methods as possible while identifying core elements that impact heat loss and gains. Requirements are non-prescriptive and are aimed at ensuring that developers of load calculation methodologies observe recognized good practices. The specifics in undertaking a load are left to the discretion of the industry professional by their selection and application of load methodologies that meet the standard.

For more information, please log on to [www.ashrae.org](http://www.ashrae.org)



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