

# BUFFALO TALES



## Newsletter of the Manitoba Chapter

The Manitoba Chapter of the American Society of Heating, Refrigerating and Air Conditioning Engineers was chartered in September 1935. It is the second oldest ASHRAE Chapter in Canada. ASHRAE Manitoba is part of ASHRAE Region XI and covers ASHRAE members in Manitoba and Northwest Ontario.



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**January 15, 2009**

**Victoria Inn**

**1808 Wellington Avenue**

**\*\*\*Student Night\*\*\***

## **Refrigerant Usage in a Global Perspective**

**Mr. W. Ryan Geister**

5:00 pm - Social Hour

6:00 pm – Dinner then Guest Speaker

Today's industry is full of skepticism and confusion about refrigerants. Meanwhile, there are global pressures on the use of all fluorocarbons and answers to the issues are highly sought after. Mr. W. Ryan Geister, ASHRAE Member, will look to add clarity to three questions that often surface in the HVAC industry. What impacts do refrigerants *really* have on the environment? What is the best overall environmental solution? What do people outside the HVAC community say about refrigerants?



**W. Ryan Geister** is the Trane Global CenTraVac Product Manager. During his 13+ years with Trane, he helped develop and support Trane's design and analysis tools, managed the systems training portion of the Trane Graduate Training Program, served as a Regional Sales Manager, and lead the LaCrosse sales support team for centrifugal and absorption chillers. In this time, Ryan garnered valuable experience in many aspects of HVAC system design by working closely with engineers, contractors, owners, office management, and sales teams for many applications.

Ryan earned a bachelor's degree in engineering from the University of Illinois in 1995 and a master's degree in business from the University of Wisconsin in 2000.

ASHRAE Manitoba Website – Devin Evanson

Do you ever find yourself searching for an archived Buffalo Tales or interested in learning more about the history of the chapter? If so, the Manitoba Chapter website is a great place to fulfill any such need. General chapter information such as chapter contacts and activities along with Region XI and Society related information can be found. There is a growing list of links to take you onto ASHRAE related sites and topics. So the next time you're surfing the pipeline of information stop by and visit us at [www.ashraemanitoba.ca](http://www.ashraemanitoba.ca).

## **President's Message** – Sergio Almeida, P. Eng.

Well the weather outside is frightful, even by Winnipeg standards, and Christmas feels like a distant memory. As we trudge our way to the office every morning in numbing cold and darkness, Global Warming seems like a pretty good prospect for us. That is of course if you consider it only from a Winnipeg perspective, where we would enjoy summers that last for more than a month or two, and less of this -40C madness. All you have to do is ignore the catastrophic predictions of mass flooding and global drought.

Now this is obviously ridiculous, and none of us would be naïve enough to look forward to massive climate change in such a narrow minded perspective. This does however give an extreme example about what many of us see regularly. People getting caught up in single issue discussions, ignoring the bigger picture. Whether it's a company directive or an emotional 'hot button' topic, many people have single issues that drive their decision making.



I'm sure we've heard people, usually owners, ask for an "environmentally friendly refrigerant". What is that? Are they referring to Ozone Depletion? Global Warming? Energy efficiency? The truth is that no such thing exists, and that every refrigerant has its pros and cons. Go across the board to most equipment, systems, and pretty well every aspect of our industry. There is no perfect solution to any problem or design, but rather a series of compromises. Even when you talk about one single topic – energy efficiency for example – you must consider a number of things. Electrical consumption at full and reduced loads, peak demand charges, affect on other components in the system (i.e. pumps, fans), gas or water consumption, etc. The list goes on.

So what's the answer? There is none. We can only strive to make the best decision, and justify that decision based on the information we have. The key is to gather all the right information first.

Cheers,  
Sergio

### Coming Events

#### **ASHRAE Manitoba Meeting Schedule**

- |                   |   |
|-------------------|---|
| February 12, 2009 | Joel Primeau, Genivar<br>Sustainability & Integrated Building Design                                  |
| March 12, 2009    | ***Refrigeration Night***<br>Will Stoecker, ASHRAE Distinguished Lecturer<br>Industrial Refrigeration |
| April 16, 2009    | Stan Mumma, ASHRAE Distinguished Lecturer<br>Chilled Beams & Dedicated Outdoor Air Systems            |

**January 24 to 28 ASHRAE Winter Meeting and ARI Trade Show – Chicago.** 400,000 square feet of trade show, numerous seminars and technical sessions and lots of technical courses will be presented at the 2009 Winter Conference and AHR Expo. For complete course and meeting registration, visit [www.ashrae.org/chicago](http://www.ashrae.org/chicago).

**April 15 and 16, 2009 BEMM Conference -**

**April 22, 2009 – ASHRAE/US EPA Satellite Broadcast** “Clean, Lean, and Green - IAQ for Sustainable Buildings”. The program will highlight the “*Indoor Air Quality Design Guide: Best Practices for Design, Construction, and Commissioning*” currently being developed through the collaboration of ASHRAE, AIA, BOMA, EPA, SMACNA and the USGBC. Program topics are: Build Good IAQ into Design & Construction Process; Avoid Costly IAQ Problems in Your Buildings; Enhance IAQ with Common Sense and Proven Technologies; Improve ROI with better IAQ, and; What We Already Know and Don't Do. Visit [www.ashrae.org/IAQbroadcast](http://www.ashrae.org/IAQbroadcast) for information regarding Registration Dates, Frequently Asked Questions, Presenters, and the Broadcast Program.

**May 6-9, 2009 – CRC (ASHRAE Chapters Regional Conference)** in Spokane, Washington. Events schedule, registration and accommodation details will be presented as they become available.

### 2008 Cribbage Tournament Results – How the Mighty Fall

Again this year, the ASHRAE Manitoba was a most enjoyable evening. This year, a 3-way cut was needed to determine which of the top points winners in this years cribbage tournament got to the prize table first. Based on the cut, the top three in the 2008 ASHRAE Cribbage tournament were:

1. John Brighty
2. Doug LeCren (RVC Student Activities from Alaska)
3. Mike Davey

Perennial high place finisher Dieter Bartel didn't fare so well this year, coming in 18th out of 24 players. Save Dieter, there were no tears shed about this.

A special thanks to Tom Beggs for organizing this event and to all those that contributed generously to the prize Table.

Notes from the 2008 ASHRAE Annual Meeting in Salt Lake City - Bert Phillips

### **Seminar 12 Preventing Legionellosis**

Jan Stout - Legionellosis is a bacterial pneumonia causing more than 18,000 problem cases per year in US. It includes more than 48 species, of which Pontiac flu is a variant, and one of the species causes over 80% of the problem infections. Legionellosis in newborns has been connected to water births. Risk factors for getting Legionellosis are – older, smoker, cancer, diabetes, immuno compromise.

“If you don’t look for it, you won’t find it. If you don’t find it, you won’t think you have a problem. If you don’t think you have a problem, you won’t do anything about it.”

William McCoy – Spoke about hazard reduction. A good website for information on Legionella is OSHA.gov. WHO.org has a free, downloadable guideline on prevention.

In order to reduce hazards, we need to first answer some questions. “What is the hazard?” “How do we prevent the hazard from harming people?” “How do we know when the hazard to people has been reduced (effectiveness verification)?” Google HACCP (hazard analysis critical control point) to get info on the steps to reduce risk for hazards such as Legionellosis.

Legionellosis is a higher risk than gastrointestinal problems from drinking water in America. He suggests drawing a flow diagram or line drawing of each water system (like the schematics of mechanical and controls systems) (one for domestic water, one for HVC, one for process water, etc. This will show where water is processed (e.g., cooling towers, humidifiers, filters, hot water tanks, water fountains, etc.) Using this, identify the points of risk, i.e., points where water should be tested and points where prevention methods can and should be applied.

He identified two levels of verification related to the hazard control plan. First, is the hazard control plan being applied? (i.e. are those responsible doing their job) Second, is the hazard control plan working? (i.e. test for Legionella to determine if the problem has been eliminated).

I suggest if Legionella is a concern in your practice, buy the 2008 ASHRAE Annual Meeting CD and watch this seminar

#### **Transactions 4 – Water Service Heating**

Carl Hiller has done years of research on domestic hot water heating and distribution systems. My notes from his presentation in Salt Lake City are a series of bullets.....

- Insulating above grade pipes cuts heat loss in half
- Buried bare pipe has heat losses 5 to 10 those of pipes in air
- Insulating buried copper water pipes cuts heat loss by a factor of 15
- Copper and pex have similar heat loss characteristics
- When you turn on the hot water tap, a lot of mixing happens in the hot water line. As a result, you may have to run quite a bit of water before water at the faucet approaches tank temperature
- Smooth pipe causes less mixing than rougher pipe, so pex is better than copper
- Keep pipe runs short and small diameter.

#### **ASHRAE Manitoba Research Report – David Stones, Chapter RP Chair**

A portion of the January 15 dinner meeting will be allocated to recognize those individuals and organizations that have contributed in the current year to ASHRAE Research Canada.

Contributions submitted will be used for research conducted in Canada. This research is ongoing and we will be approaching more Chapter members and organizations to continue supporting this work. We have reached 30% of our chapter’s goal for the current year

Please contact me at [dstones@shaw.ca](mailto:dstones@shaw.ca) or [dstones@waa.ca](mailto:dstones@waa.ca) to find out you can contribute.

## ASHRAE Manitoba Chapter Officers

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## ASHRAE Region XI Officers

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ASHRAE, founded in 1894, is an international organization of 55,000 persons. Its sole objective is to advance through research, standards writing, publishing and continuing education the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve the evolving needs of the public.

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