Chapter President's Message

Chris Conley
Daniels Wingerak Engineering Ltd.

Well I’m back from a very interesting, informative session down in Orlando. The ASHRAE Winter meeting was a great opportunity to meet and network with ASHRAE members from around the globe. The hot topic in Orlando was definitely humidity control, but the other big news item was the release of ASHRAE standard 189.1, the green building standard. I believe that this standard is available for download, and I recommend taking a look. The standard brings ‘green’ building practices from USGBC, IEEE and ASHRAE and uses ‘code enforceable’ language.

Last month we had ASHRAE’s current president Gordon Holness visiting. I very much enjoyed his presentation, and I hope our attendees did as well. Gordon went on to Regina with some Saskatoon and Regina chapter members, and started the process of convincing our government to adopt ASHRAE 90.1, 90.2 and 62.1, 62.2 into our building codes. Based on past history with code adoption, it could take a while, but with the focus on carbon and energy, the process could move fairly quickly. Wouldn’t hurt to pick up a copy of the latest standards to get an idea of how Saskatchewan adopting these codes could affect you…

Please see Chapter President’s Message continued on page 2

Evening Itinerary

5:30 - 6:00  Doors Open - Cash Bar
6:00 - 7:00  Supper
7:00 - 7:45  Chapter Meeting
7:45 - 8:45  Presentation

RSVP

Please reply no later than noon Monday, February 8th if you plan to attend the meeting
Jonathan Bushman
March Consulting Associates Inc.
Ph: 651-6372
E-Mail: jBushman@marchconsulting.com

2009-2010 Meeting Dates

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Chapter President's Message

(Continued)  Chris Conley

Travis Harbicht from Cameco will be speaking at our next meeting on some of the refrigeration and ventilation practices used in their mining processes; this promises to be an interesting presentation. Students and potential members should be in attendance as well, so everyone please take the opportunity to introduce yourself to anyone new.

Have you ever thought you'd like to help out with the BOG, but weren't sure what it would be like, or how to do it? Our current BOG will be looking for people to join small subcommittees. Your participation could be as simple as sending a couple reminder emails, or picking up the mail once a month. □

Previous General Meeting

Minutes

The last general meeting of the Saskatoon Chapter of ASHRAE was held on January 11th 2010, for a draft copy of the meeting minutes please click the graphic below. □

Chapter Programs

Jonathan Bushman
March Consulting Associates Inc.

I am excited about February’s meeting. Not only is it Membership Promotion and Student Night ($10 cost for non-members and $5 for students, yay!), but we have a little different of a topic. ASHRAE seems to focus on residential and commercial HVAC, but you never hear anything about heating and ventilation in an industrial or mining context. I can probably name four or five potash mines that are an hour’s drive from Saskatoon and Cameco’s headquarters are in Saskatoon. (Maybe next year we will have an agricultural HVAC presentation.) Travis Harbicht, a senior mine engineer with Cameco’s McArthur River uranium mine will be speaking to us about the refrigeration plant and ground freezing that they have at the mine. I gather that there are large amounts of underground water in the area and the mine’s solution is to freeze the ground. Travis will also be speaking on ventilation, but I need to mention that mine ventilation is such an extensive topic that Travis will likely only be able to touch on it. If this ground freezing and mine ventilation topic would interest your co-workers, classmates, or friends, then invite them. It is the cheap night and a time for students to meet future employers (and employers meet students). I should mention that I need to let the Park Town Hotel how many people are coming, so please sign up for the meeting by the deadline. If we want enough food, then I need to know how many people are coming. If you have food allergies, etc., then please let me know when you sign up for the meeting.

Coming up in March, ASHRAE Distinguished Lecturer Julian de Bullet will be presenting. Though the topic is being decided, Julian may speak on “ASHRAE Standard 90.1 – An Overlook”. If you like or dislike this topic, then please let me know. I am working out the details for a U of S Heating and Cooling Plant tour in April. I am thinking that we may need to break into two groups and have one group eat while the other tours. After April, there is our golf tournament and our year is done. □
Student Activities

Jonathan French
Johnson Controls

Student Nights:

As in previous years we will hold two Student Nights during our ASHRAE meetings this fall / spring.

These meetings provide an ideal opportunity for students to learn about our industry in a relaxed and informal setting.

Students will be charged a reduced dinner fee (only $5) to encourage their attendance. □

Meeting Details

The ASHRAE Saskatoon meetings are almost always held at the Park Town Hotel, on the second Tuesday of the month. The Park Town Hotel is located at 924 Spadina Crescent East, at the corner of Spadina and 25th Street, right by the University Bridge. There are bus stops at 25th Street and Spadina, with six bus routes stopping there. Free parking is available in the hotel main lot and the first 2 levels of the parkade. □

PAOE (Presidential Award of Excellence) Points

If you are involved in any of the following activities, please send an e-mail to jbushman@marchconsulting.com with the details so they can be included in our PAOE reporting:

- participating in a K-12 student activity
- mentor student design Team
- participation in National Engineering Week Activity
- hiring an Engineering College or Tech School Student (part-time or summer intern)
- renewed an ASHRAE certification (e.g. High-Performance Building Design Professional)
- won an ASHRAE award (e.g. Technology Award)
- nominated someone for an award or as an ASHRAE Fellow
- published an article in the ASHRAE Journal, Handbook, or other publication
- attending the ASHRAE Winter or Annual Meetings this year □

Presenter Bio

Travis Harbicht (har-bic) Senior Mine Engineer, Cameco - McArthur River Operation.

Travis convocated as a Geological Engineer from the University of Saskatchewan in 2000. He has a background in aerospace and mechanical engineering from Carleton University in Ottawa and the University of Saskatchewan. He has worked for Cameco in various positions for 16 years and has worked on artificial ground freezing for the past 12 years. Travis has been a private pilot since 1992 and is still quite active in aviation. □

Jack Scott
HVAC Sales (1997) Ltd.

ASHRAE Saskatoon Chapter will again have the pleasure of hosting the John Ross Curling bonspiel on Saturday, March 20, 2010. The curling will take place at the Granite Curling Club followed by dinner. It’s a great opportunity for fellowship amongst ASHRAE members from around the region and it is hoped that we will see teams from Edmonton, Calgary, Regina and Winnipeg along with a regional team come to Saskatoon to share in the day’s events. □
Research Promotion

Ryan MacGillivray
Daniels Wingerak Engineering Ltd.

At our January meeting, we had the Regional Vice-Chair of Research Promotion, Mr. Ray Seiber from Regina give a talk about the research promotion campaign. We also held a 50/50 draw. Thank you to everyone who bought tickets. Andrew Thomson won the pot, and we were able to raise $75 for Research Promotion.

Our 2009-2010 Research Campaign year-to-date total is up to $2,874.

I will be contacting everyone soon, but if you are eager to make your donation for the year, please let me know. I can take cash, cheque or credit cards. I will have invoices available at the meeting. Donations can be sent to me at:

Daniels-Wingerak Engineering Ltd.
3022 Louise Street
Saskatoon, Sk.
S7J 3L8

Donations are to be made payable to ASHRAE Research Canada.

On a similar issue, I am looking for some donations of items that we could potentially auction off or conduct a raffle, to raise some Research Promotion money. This could be game tickets, concert tickets, prizes, etc… that you or your company has access to but won’t be able to use, or are willing to give up. The donation to Research Promotion could then be made on your behalf, for the amount raised for the item. Please let me know if you have anything we can use.

As well, we are thinking of having a new Research Promotion Fundraising Event - possibly a lobster roast. Let me know if you would be interested.

Thank you, and talk to you soon.

Chapter Technology Transfer Committee

Andrew Thomson andrew.thomson@stantec.com
Stantec

ASHRAE Saskatoon is offering a course on the Fundamentals of Refrigeration. This will be taught by Jerry Boulanger over two days with course materials and lunches provided. This course looks at how thermodynamics is applied to refrigeration, heat transfer and its application to evaporators and condensers, refrigeration flow in pipes, valves, and pumps, pressure vessels and refrigerant management, selection of refrigerants, and refrigeration system control. Cost is $350 for local ASHRAE Saskatoon Chapter members, $400 for non-members, and $100 for students. Last year we did not have enough people to run the course, so if you are interested please let me know early so I can plan accordingly. If you were a student who had registered last year and have now entered the professional world, you still only have to pay the $100 student fee.
Energy Answers

Rob Dumont

Are global temperatures still rising? I read on the Energy Probe web site that “About 10 years ago, temperatures stopped climbing. They plateaued and then started falling.”

Energy Probe should do some fact checking. I went back to the original source data to have a look at temperatures over the last 120 years.

The following data is from the U.S. National Aeronautics and Space Administration (NASA) Web Site, showing global temperatures from 1880 to the present.

![Global Temperature Change (1880 to the Present)](image1)

Figure 1. Global temperature change (1880 to the present)

The squares on the graph show the annual mean temperature from 1880 to the present, and the smooth line shows the running 5 year mean temperature. As can be seen, global temperatures have been rising, particularly since about 1963. Year to year, there are fluctuations in temperature, and these fluctuations are caused by a number of factors including ocean temperature fluctuations (El Nino and La Nina, for example), volcanic eruptions, dust levels from fires and winds, solar radiation variations, variations in ocean currents, etc.

If you look on the graph for 1998, it was a significantly warmer year than either 1997 or 1999. Some climate change deniers have seized on that one warmer year in 1998, and made the claim that the earth is now cooling. There is an old saying that “One swallow does not a summer make.” If you look carefully over the annual data on the graph, there are relatively large fluctuations from year to year, and it is not legitimate to use one year as a reference point. The five year averages are much more legitimate to use in any comparisons. Based on the five year averages, the earth is definitely not cooling.

What is the primary driver of increased global temperature?

The largest factor driving increased global temperature is rising carbon dioxide emissions.

The graph in Figure 2 shows the values of carbon dioxide in the atmosphere from 1960 to the present. Before the industrial revolution, the carbon dioxide levels in the atmosphere were about 280 parts per million by volume. As can be seen from the graph, the current level is about 385 ppmv.

![Atmospheric Carbon Dioxide Levels (1960-Present)](image2)

Figure 2. Atmospheric carbon dioxide levels (1960-present)

Why would Energy Probe make such a statement?

I had a look at the principles of the organization, and here is the lead-off principle on their web site: “1. We work for environmental sustainability by promoting property rights (private or communal)…”

On this planet there is one sky. Property rights, private or communal, will never protect the global commons of the atmosphere. We are all downwind of our energy use. It certainly is not helpful for a Canadian organization such as Energy Probe to jump on board the climate change deniers train. This is a very sad state for an organization that was spun off from Pollution Probe.

The late U.S. Senator Daniel Moynihan once said: "People are entitled to their own opinions; they are not entitled to their own facts." Energy Probe should get its facts straight.

Anyone who does not believe that global warming is happening probably believes that Elvis is alive, the earth is really flat, and Obama was not born in Hawaii. □
Newsletter Format and Distribution

The format of our newsletter has been revised from an embedded HTML document to an attached PDF file. The hope is to create an easily printable version of the newsletter while still offering a convenient readable format.

In the past, the BOG had discussed who should receive the newsletter. We will be revising the newsletter distribution as follows:
- Local dues paying members
- Regional Chairs and Vice Chairs
- Regional Chapter Presidents
- Student Members

All society only members will receive a general meeting notification only.

Subscription Management

To ensure that the POWUr eNewsletter is not blocked by spam-blocking software, please add chap102admin@ashraechapters.org to your address book.

The POWR News is the free monthly eNewsletter for local dues paying Saskatoon and area ASHRAE members, provides relevant, timely information about your local chapter events, monthly meeting dates, guest speakers. To read this week's newsletter online or to view back issues, click here. We welcome your feedback.

American Society of Heating, Refrigerating and Air-Conditioning Engineers, ASHRAE, founded in 1894, is an international organization of some 50,000 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 (HVAC&R) to serve humanity and promote a sustainable world.

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