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.



ASHRAE Supper Meeting **Thursday, March 11, 2010**

Manitoba Hydro Place Building Tour

Registration starts at 3:30 in the lobby
Presentation/Tour 4:00pm – 5:15pm
Max attendance is 40 (plus MB Hydro employees)
Standard dinner prices in effect even if only doing the tour.

Dinner – Victoria Inn, 1808 Wellington Avenue Victoria Inn 6:00pm – 7pm

Manitoba Hydro Place is a ground-breaking example of energy efficiency and sustainability merging with signature architecture. The office tower, winner of the 2009 Best Tall Building in the Americas award, used an Integrated Design Process to achieve a high-quality indoor environment while reducing energy use by 65% from the Canadian Model National Energy Code for Buildings.

This presentation and tour will share lessons learned, from planning and design to construction and commissioning. The Integrated Design Process will be emphasized, specifically as it relates to energy efficiency. In addition, the paradigm shift in designing highly energy-efficient buildings will be discussed. The "submarine" approach to design - isolating the building from the environment - was dismissed in favour of an "indigenous" approach which embraces the outdoor environment. This climatically-responsive approach, as exemplified in Manitoba Hydro Place, has set the stage for a radical market transformation to the next generation of energy-efficient buildings.

Mark Pauls joined Manitoba Hydro in 2006 as an Engineer-in-Training with a B.Sc. from the University of Manitoba in Electrical Engineering. He joined the Downtown Office Project Team in 2008 with a focus on commissioning the building as construction neared completion. In late 2009, as the project neared completion, he became the Building Energy Management Engineer for Manitoba Hydro Place. His current duties include systems commissioning, implementing a Measurement and Verification Plan, and optimizing the systems at Manitoba Hydro Place for maximum energy efficiency.

ASHRAE dinner meetings are open to all. Pre-registration is required. To pre-register or to get information on the cost of ASHRAE events, e-mail <u>Jsandhu@smseng.com</u> or visit <u>www.ashraemanitoba.ca</u>.

President's Message - Daryl Friesen



Now that the Winter Olympics have ended there shouldn't be any reason for missing the upcoming ASHRAE Dinner meeting March 11th. A presentation and tour of the recently constructed Manitoba Hydro Place is on the agenda. This will be a very interesting tour especially to those of us that went on the tour a year or so ago during construction. Registration fees also include Dinner at the Victoria Inn following the tour. Please see the Buffalo Tales for details and sign up early as space is limited.

The Better Building conference is coming up on April 13 and 14. ASHRAE Manitoba is a major partner in the event this year and will feature many worth while seminars and discussions. Contact BEMM or

Sergio Almeida if you are looking for any info on this event.

Still no interest in the upcoming John Ross Curling Bonspiel being hosted by the Saskatoon Chapter. We're running out of time to sign up a team so let me or Gary Bailey know as soon as you can. As I mentioned at the meeting last month the Chapter will pick up most of the cost.

Hope to see you at the Tour and Dinner on the 11th.

Coming Events

April 15, 2010 - ASHRAE Manitoba supper meeting

April 13 and 14, 2010 – Better Buildings Conference at the Winnipeg Convention Center

April 21, 2010 1 to 4 p.m. EDT (noon to 3 PM in sunny Manitoba) – **free to all ASHRAE Webcast "Right From the Start – Commissioning for High Performing Buildings"**Why do you need Commissioning? Why should Commissioning start in the design phase? How can you avoid or reverse building performance decay? How does Commissioning improve ROI? Get answers to these questions and tools to commission your next building by participating on your computer via the internet. Please share this information with everyone you think would benefit from participation, member or not. Online registration is required and begins **March 2**nd at www.ashrae.org/Cxwebcast.

Three (3) Professional Development Hours (PDHs) or three (3) AIA Learning Units (LU's) may be awarded to viewers who complete the "Participant Reaction Form" online by April 30, 2010.

June 26 to 30, 2010 - ASHRAE Annual/Summer Meeting in Albuquerque, NM –includes a track *Energy Conservation vs. New Generation*/ In the United States, buildings consume over 40% of energy produced and contribute over a third of CO₂ emissions. Current projections anticipate US energy demands will increase by more than one-third by 2030, with electricity demand rising by more than 40 percent. As we continue to see a trend toward "net-zero" energy buildings, the debate continues as to what is the most effective method to curtail CO₂ emissions and global climate change. While some experts have stated that improving energy efficiency in

our buildings is one of the most constructive, cost-effective ways to address the challenges of high energy prices, energy security and independence, and global climate change, others experts predict that implementing new generations technologies such as solar and wind, in conjunction with smart grid technology, will reduce our dependence on fossil fuels, thus reducing CO₂ emissions, and improving energy security. The series of sessions in this track illustrate the benefits of improved efficiency technologies verses new generation technologies and how the technologies promote net-zero energy buildings and contribute to lower CO₂ emissions.

Greenwash is Snake Oil

"If it seems too good to be true, it probably is too good to be true." As consumers and as professionals, we are often offered or pressured to purchase miracle products with claims that seem to be good to be true. For example, bubble pack and reflective insulations with high R-value claims, R19 insulating paints, super efficient electric heaters constructed by Amish tradesmen, and more. Energy Design Update (EDU), one of the publications that crosses my desk, often addresses these issues and in related articles has offered quotable quotes such as "It is difficult to get a man to understand something when his salary depends on his not understanding it." (Upton Sinclair) and "From a manufacturer's point of view, the primary function of a product is to be purchased. Other functions, if any, are secondary." (EDU Vol 29#9 Sept 2009)

In July 2008, EDU's *The Six Sins of Greenwashing* described research by TerraChoice Environmental Marketing into marketing claims for "environmentally friendly" products. They examined 1753 claims made for 1018 products and found that **99.9% of the claims (i.e. for all but one product they examined) were "demonstrably false or that risk misleading the intended audiences**". Products examined included household cleaners, hairspray, toilet paper, appliances, flooring, insulation and lightbulbs. http://terrachoice.com/filres/6_sins.pdf

The false claims fell into six categories; hidden trade-off (hyping a positive characteristic while ignoring a negative); unproven claims; vagueness (e.g., this product is green); irrelevance (e.g., boasting a feature which is common to all competing products such as "our electric heaters are 100% efficient"); lesser of two evils (e.g., hyping the energy efficiency of a large SUV or home); outright lies (high R values for paints or reflective barriers on bubble pack or foam insulations). When pressed for proof in the unproven claims category, it is common for product promoters say that current test methods don't work for their product or are deliberately designed to bias against their product.

Homeward Bound from the ASHRAE Summer Meeting in Louisville

Late in the afternoon of the sixth day of ASHRAE meetings, I was on my way home, riding went through Indiana backcountry - hills, forests and moderately twisty roads with a treed canopy; a motorcyclist's delight. I stopped at a busy little restaurant full of Amish looking people that looked like a worthy supper stop. It was a "table sharing" place with prices that were much better than the food. I shared a table with a preacher from the little evangelical church I passed just down the road. The economic downturn was hurting the people in this part of the country but they were helping each other out. He and his son used to ride motorcycles together until July 23, 2006. With that exact date I knew what was coming next. A truck pulled onto the highway on a blind hill just up the road from his place. He got news and arrived at the accident scene before the ambulance. His son looked like he would be okay, looked very peaceful laying there, wasn't

badly mashed up. The ambulance people thought the injuries weren't that bad then things went wrong. A helicopter arrived at the local hospital to take him to a city hospital, but it was too late. It went back empty. When the doctor came out of the examination room with the bad news, his wife fainted and hit her head on the concrete floor, split her head, got a concussion. Three years later they were getting by. They belonged to a support group of people who had lost children, but every day had reminders of their son..... that hill on the road he drove daily, his son's room and his stuff in the garage, the hospital, people riding motorcycles They didn't understand why, but because of their faith, they knew that although he was physically gone, his spirit was with them. Because their son was a Christian, he had accepted Jesus, one day they would be together again in heaven. My fish sandwich seemed dry and hard to swallow. When we were done our meals we chatted a bit longer. I tried to come up with some appropriate condolences and made my exit. He said he would be praying for my safe return home. We waved each other off as he headed southeast in his pick-up and I headed northwest on my bike.

Just before midnight, I stopped in a supermarket parking lot in Davenport Iowa to check my maps, check whether or not I was lost and try to figure out where I might find a hotel or motel. The temperature was still above 90°F, warmer than Manitoba when we think it is too hot. A fellow crossed the parking lot toward me. At first I thought he was a security guard coming to offer me some travel assistance but as he got closer, I realized he was a street person who I expected to hit me up for some change. He was sweaty and smelled like a gym bag at the end of the school year or hockey season.

He told me he was a traveling preacher. He spent his life hitch hiking and walking around the country, spreading the gospel and blessing truckers. In the past 25 years he had walked over 150,000 miles and hitched over 2 million miles. It had been hotter than stink that day and he was headed across the road to Walmart to cool down and get a cool drink. He was camping behind the supermarket. It was nice in there. The people in Davenport were good people, they were nice to him but I needed to watch out for the cops. They were nasty in these parts. I shouldn't be riding at night because there was a lot of wildlife, I should camp out behind the supermarket. He had gone to school to become a big time preacher evangelist spreading his message in arenas and auditoriums and making big bucks but after thirteen years of religious training and university he decided that was wrong for him and he hit the road and never quit traveling. There was lots of room for me behind the supermarket and if I didn't have camp gear, it was warm enough I wouldn't need blankets and he could set me with an old mattress he found down on the river behind the supermarket. He rambled from topic to topic including the economy, the banking and stock market crisis, the new and past presidents, the wars in the middle east, the wonders of nature and the beauty of the open road and although it was somewhat scattered it was all logical and coherent and he sounded very well informed. Before he went to Walmart, he wanted to say a prayer for me. The prayer was at least two minutes long, he spoke fast without ever seeming to stop to take a breath, he was eloquent and the prayer was perhaps more coherent than any other I have ever heard. I wished I had a tape recorder running. When he said "amen", I was assessing the value of blessings he had bestowed upon me and entertainment he had provided (I decided \$5) but rather than hit me up for a contribution to his collection plate, he shook my hand, said "God bless and safe travels" and turned his back and headed to Walmart. I finished looking at my map, found I wasn't lost and headed down the road a few miles where I caught a hotel.

The hotel manager asked me if I qualified for any discounts. He named AAA and a bunch of others. I said I was old, and sometimes that qualified me for a discount. He asked "62 or older?"

I said 59. He looked at me sideways and said I could easily pass for 62 and that saved me ten bucks.

The next day (Thursday, June 25) was warm and sunny. I rode lesser roads where I enjoyed the rural landscapes. The blessings I had received the day before did not provide complete protection. In Clayton County Iowa, I got stopped and was issued a ticket for 60 in a 55 by a very pleasant, older police officer (could have passed for 62). He invited me to sit in the back of the car where it was air conditioned and out of the heat. It was a \$10 speeding ticket, with an \$8.50 surcharge and a \$60 court fee for a total of \$78.50. The officer explained that I had a number of options. I could sign the part of the ticket that says I agree to deal with it by either mailing in cheque with the stated fine or paying a bail bond and entering a not guilty plea and going to court at a later date or I could not sign the ticket and deal with it right then and there. Then and there meant I would wait in jail until a judge showed up to hear my case.

I have been in jail a few times, on projects or to visit a buddy that was in trouble, but not the real thing so I am curious about the experience of living in a cell for a few days, but as I thought about this potential adventure, I recalled a Tom T Hall song about getting arrested for speeding and spending a couple of weeks in a county jail waiting for a judge to come around to hear his case. His description of his stay took the romance out of the idea. I signed the ticket, he let me out of the police car and we both moved on. The rest of the day was wonderful. When I arrived home, it was still daylight.

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ASHRAE, founded in 1894, is an international organization of 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 to serve the evolving needs of the public.

ASHRAE needs you, but more importantly you need ASHRAE. ASHRAE always has room for more professionals, just like you. For information regarding ASHRAE membership, contact Manitoba Membership Chair, Stephen Norsworthy, stephen.norsworthy@snclavalin.com or visit ASHRAE Manitoba at www.ashraemanitoba.ca

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