



# 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 Manitoba Presents a Seminar **Tuesday February 10, 2009**

## **HVAC System Maintenance: A Wise Investment**

1:00 - 4:30 pm, Greenwood Inn

Some debate the cost effectiveness of good maintenance practices. Building owners complain that allocating more resources to maintenance is not affordable in today's competitive marketplace.

**ASHRAE Distinguished Lecturer Robert Baker** will speak about recently published ASHRAE, ACCA, ANSI Standard 180 which establishes minimum acceptable performance levels for HVAC System maintenance and explain its value to design engineers and building owners. He will review an extensive study of ventilation system operating efficiency in a large office building that demonstrated conclusively that keeping the system clean saves time and money. He will show that implementation of the new standard coupled with retro-commissioning of a building can save thousands in wasted energy, improve indoor air quality and sustain a satisfactory level of indoor environmental quality.

More details and a registration form are attached.

ASHRAE Supper Meeting **Thursday February 12, 2009**

## **Sustainability and Integrated Building Design**

5 PM Social, 6PM Supper Victoria Inn, 1808 Wellington Avenue

Truly sustainable buildings can only be achieved when all disciplines are coordinated and pointed in the same direction. Validating the benefits of solutions against the impact on the total performance of the building is necessary throughout the entire design phase. Integrated Building Design or IBD is growing in popularity as builders and designers recognize that working in isolation has limited benefits, and true synergy is the only way to achieve affordable sustainability. This presentation covers the basics of IBD and describes the roles of the HVAC engineer, the HVAC supplier and mechanical trades in IBD. It includes concrete examples of successful integrated solutions.

**Joel Primeau, Director of Sustainable Design for GENIVAR**, leads his firm's efforts in the design of high performance, sustainable buildings. He is a mechanical engineering graduate from RMC in Kingston. A brief career as an army engineer (in Winnipeg and Quebec City) was followed by over 15 years in HVAC - consulting, facilities management and technical sales. He's a Past-President of the Ottawa Valley Chapter and is currently Regional Vice-Chair for Student Activities for Region II. Joel's technical expertise has centered on energy efficiency and indoor air quality. Recently, he gravitated to the world of sustainability, LEED and Integrated Building Design. Joel was among the very first engineers to obtain ASHRAE's new High-performance Building Design Professional (HBDP) designation. He's currently working on an ASHRAE short course on IBD. Joel is an entertaining speaker with a wealth of knowledge to share.

## President's Message

Sergio Almeida, P. Eng.

Life is tough. Work is demanding, family is important, and sometimes you just want to take a few minutes to catch your breath. But somewhere in there we need to find some time to do the right thing; volunteer.

I don't think there are many – or any – of us that would turn to someone and talk about how much extra time they have on their hands. Everyone in our industry is busy, especially over the last couple years as our economy has “boomed”. But with economic turmoil being predicted, the inevitable slow down presents us with the perfect opportunity to give back. There are numerous organizations, ASHRAE included, looking for good people to contribute an hour or two, here and there, to help out.



Now you can easily find ten reasons why not to volunteer, and if that's what you choose to do then that's ok. But there are also a number of reasons why you should find the time. Volunteering with an industry-related organization such as ASHRAE, gives you a great list of contacts that filters into your every day work. These contacts – and the associated notoriety – extend beyond just our local market, as ASHRAE activities extend through western Canada and North America. Regardless of whether you're a supplier, a consultant, or a contractor, the benefits are great.

This is not just a shameless plug to find volunteers for ASHRAE (although we do need people so if you're interested please call or email me). It's a push in the right direction to find somewhere that you feel you can make a difference, but also get something in return. You don't have to spend 10 or 20 hours a week to do it either, you just have to care enough to commit yourself to be there when needed. We all have day jobs that we need to pay the bills, so the organization is flexible to accommodate each individual's schedule. The commitment is significant but the returns can be much greater.

Cheers,  
Sergio

## Coming Events

### ASHRAE Manitoba Meeting Schedule

- |                |  |
|----------------|--|
| 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 as an afternoon seminar<br>Dedicated Outdoor Air Systems as the supper meeting presentation |

**April 7 & 8, 2009 – Better Buildings Conference, Winnipeg Convention Center** - “Our Sustainable Future” For details, go to [www.betterbuildingsconference.com](http://www.betterbuildingsconference.com)

**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. 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. For events schedule, registration and accommodation details go to <http://www.ie-ashrae.org/2009CRC>

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

### **Seminar 26 - Benchmarking Commercial Kitchen Ventilation System Performance**

Steve Brown noted that study of US restaurants estimated that exhaust from the nations approximately 925,000 restaurants is 3 billion cfm. 75% of restaurant HVAC energy is related to kitchen ventilation. Don Fisher (a former Manitoban) has done a lot of research on improving performance of exhaust hoods in commercial kitchens. His studies show that on a ten foot kitchen hood, side curtains can drop the spill threshold by 30% (i.e., you can stop spill from the hood with 30% exhaust air flow). A backstop also provides big improvement in capture and containment. Better yet, pushing appliances back as close to the wall as possible further reduces the potential for backflow and also provides more hood overhang at the front of appliances under the hood. Both these steps are beneficial to capture and containment.

### **Seminar 37 – Energy Efficiency of Residential AC**

The focus in this session was largely hot climates, but there were a few thoughts which were universal in their application. Hugh Henderson suggested that for humid applications, the performance of standard AC equipment can be improved by airflows to 300 cfm per ton to increase latent performance. He cautioned against operating in “fan on” mode because running the circulation fan after the end of the cooling cycle re-evaporates condensation from the cooling coil.

While historically we controlled temperature and let humidity float, but now there is pressure to separately control indoor humidity levels and temperature. In many applications, periods with high latent loads do not coincide with periods requiring lots of sensible cooling. As such, a conventionally controlled air conditioning system cannot be used to reduce indoor humidity levels without adversely affecting thermal comfort. Continuous ventilation increases latent loads while better building envelopes (e.g., windows which reduce solar loads) reduce sensible loads. Occupants have higher expectations for personal comfort. As such, the demand for explicit dehumidification systems is increasing.

John Proctor said in hot dry climates, running the fan at the end of the cooling cycle to recover any latent cooling in the water that remains on the coil is beneficial. He thinks air handlers with more efficient fan wheels have the potential to provide significant energy savings in air conditioning applications.

Harvey Sachs noted that electric utilities don't care about AC performance at 80oF. What matters

to them most is AC performance when it is hot out, because that impacts peak loads. On the other hand, AC rating standards don't focus on high temperature performance because AC systems don't operate many hours under these conditions.

### ASHRAE Professional Certification for Facility Operations and Performance

Energy use in buildings can be reduced by 10 to 40 percent by improving operational strategies in buildings, according to a study by the Energy Systems Lab at Texas A & M University. A new certification program from ASHRAE helps building owners know they are hiring and retaining employees and consultants who know how to take advantage of such strategies.

The Operations and Performance Management Professional Certification (OPMP) program is intended for those working in facilities operations, management construction, design, or consulting; and for those who have experience in facility operations and performance. Those earning OPMP certification will have demonstrated a well-rounded understanding and knowledge of the management of facility operations and maintenance and the impact of O&M on HVAC&R systems' performance.

Individuals must meet certain eligibility qualifications to take the exam. The program will be available via electronic testing centers worldwide starting in March 2009. The fee for the OPMP program is US\$275 for ASHRAE members and US\$395 for non-members. For more information, an exam content outline and available resources for exam preparation, visit [www.ashrae.org/certification](http://www.ashrae.org/certification).

ASHRAE certification exams currently available are Healthcare Facility Design Professional and High-Performance Building Design Professional.

### ASHRAE Research – David Stones, Chapter RP Chair

Individuals and organizations are encouraged to contribute to Research Promotion for ASHRAE Research Canada. Canadian contributions support research in Canada. Canvassing is ongoing and we will be approaching more Chapter members and organizations to support this work. We have currently reached 30% of our chapter's goal for the current year. For information on how to contribute, contact me at [dstones@shaw.ca](mailto:dstones@shaw.ca) or [dstones@waa.ca](mailto:dstones@waa.ca) Below is a listing of contributors to December 31, 2008.

#### Major Contributors

<b>Manitoba ASHRAE Chapter</b>		<b>\$1,000</b>	
Nova 3 Engineering	\$500	Airdronics Incorporated	\$250
John Brighty	\$200	Bert Phillips	\$200

#### Honour Roll and Other Contributors

(Honour Roll - at least \$100 personal  
or \$150 corporate)

Sergio Almeida  
Dieter Bartel  
Robert Bisson

Daryl Friesen  
Russell Lavitt  
George Marchildon  
Corey Nation

Jesse Sandhu  
David Stones  
Stirling Walkes

## ASHRAE Manitoba Chapter Officers

President	Sergio Almeida	The Trane Company	632-1543	<a href="mailto:salmeida@trane.com">salmeida@trane.com</a>
President-Elect	Daryl Friesen	Midwest Engineering	989-3636	<a href="mailto:daryl@midwesteng.com">daryl@midwesteng.com</a>
Vice-President	Jesse Sandhu	SMS Engineering	775-0291	<a href="mailto:jsandhu@smseng.com">jsandhu@smseng.com</a>
Secretary	Stirling Walkes	SMS Engineering	775-0291	<a href="mailto:swalkes@smseng.com">swalkes@smseng.com</a>
Treasurer	Corey Nation	E.H. Price Ltd.	982-2222	<a href="mailto:coreyn@price-hvac.com">coreyn@price-hvac.com</a>
Governor	Dieter Bartel	Manitoba Hydro	477-7717	<a href="mailto:dbartel@hydro.mb.ca">dbartel@hydro.mb.ca</a>
Governor	Robert Bisson	Public School Finance Board	945-8452	<a href="mailto:rbisson@gov.mb.ca">rbisson@gov.mb.ca</a>
Governor	George Marchildon	PSFB	945-0207	<a href="mailto:gmarchildo@gov.mb.ca">gmarchildo@gov.mb.ca</a>

### Committee Chairs

Chapter History	Robert McDowall		284-6678	<a href="mailto:robertmcdowall@mts.net">robertmcdowall@mts.net</a>
CTT	Russell Lavitt	SMS Engineering	775-0291	<a href="mailto:rlavitt@smseng.com">rlavitt@smseng.com</a>
Honours & Awards	Dieter Bartel	Manitoba Hydro	477-7717	<a href="mailto:dbartel@hydro.mb.ca">dbartel@hydro.mb.ca</a>
Membership	Jesse Sandhu	SMS Engineering	775-0291	<a href="mailto:jsandhu@smseng.com">jsandhu@smseng.com</a>
Programs	Johann Baetsen	E.H. Price Ltd.	661-7829	<a href="mailto:johannb@price-hvac.com">johannb@price-hvac.com</a>
Refrigeration	OPEN			
Research & Promo	David Stones	Wardrop Engineering	272-1331	<a href="mailto:dstones@shaw.ca">dstones@shaw.ca</a>
Student Activities	Peter Gryc	SMS Engineering	775-0291	<a href="mailto:pgryc@smseng.com">pgryc@smseng.com</a>

### Other

Accommodations	Jesse Sandhu	SMS Engineering	775-0291	<a href="mailto:jsandhu@smseng.com">jsandhu@smseng.com</a>
Homepage Editor	Devin Evenson	Manitoba Hydro	474-3971	<a href="mailto:devenson@hydro.mb.ca">devenson@hydro.mb.ca</a>
Newsletter Editor	Bert Phillips	UNIES Ltd.	633-6363	<a href="mailto:phillips@unies.mb.ca">phillips@unies.mb.ca</a>
Roster	David Stones	Wardrop Engineering	272-1331	<a href="mailto:dstones@shaw.ca">dstones@shaw.ca</a>
Special Events	Tom Beggs	Tom Beggs Agencies	953-1900	<a href="mailto:tombeggs@mts.net">tombeggs@mts.net</a>

## ASHRAE Region XI Officers

Director & Regional Chair	Traci Hanegan	Coffman Engineers, Spokane		<a href="mailto:hanegan@coffman.com">hanegan@coffman.com</a>
Assistant Regional Chair	Erich Binder	Colt Engineering, Calgary		<a href="mailto:Binder.Erich@colteng.com">Binder.Erich@colteng.com</a>
Technology Transfer	Bert Phillips	UNIES Ltd.		<a href="mailto:phillips@unies.mb.ca">phillips@unies.mb.ca</a>
Membership Promotion	Russell Lavitt	SMS Engineering		<a href="mailto:rlavitt@smseng.com">rlavitt@smseng.com</a>
Student Activities	Doug LeCren	Colt Engineering, Anchorage		<a href="mailto:dlecren@nana-colt.com">dlecren@nana-colt.com</a>
Resource Promotion	Norm Grusnick	ECCO, Vancouver		<a href="mailto:normang@shaw.ca">normang@shaw.ca</a>
Nominating Committee	Dale Carter	Dec Design, New Westminster		<a href="mailto:Dale@decdesign.ca">Dale@decdesign.ca</a>
Nominating Committee	Doug Dunford	Portland		<a href="mailto:Dwdunford@aol.com">Dwdunford@aol.com</a>
Regional Historian	Ivan Hall	ESC Automation, Edmonton		<a href="mailto:ihall@escautomation.com">ihall@escautomation.com</a>
Treasurer	Rob Craddock	Inland Metal Manufacturing, Regina		<a href="mailto:rob@inlandmetal.ca">rob@inlandmetal.ca</a>
Web Page Editor	Joseph Korus	Coffman Engineers		<a href="mailto:korus@coffman.com">korus@coffman.com</a>
CRC Chair, 2009	David Reames			<a href="mailto:daver@lseng.com">daver@lseng.com</a>

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.

Statements in this publication are not expressions of the Society or of the Chapter. Articles may be reproduced without permission. Please credit the source.

Visit ASHRAE Manitoba at [www.ashraemanitoba.ca](http://www.ashraemanitoba.ca).

Visit ASHRAE at [www.ashrae.org](http://www.ashrae.org).