

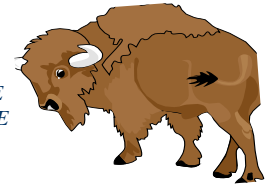


## BUFFALO TALES

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.*

**Shaping Tomorrow's Built Environment Today**



---

**ASHRAE Supper Meeting  
Victoria Inn, 1808 Wellington Avenue  
Thursday March 15, 2012**

### **ASHRAE Distinguished Lecturer Peter Simmonds High Performance Buildings and Occupant Comfort**

5:00 pm - Cocktails

6:00 pm - Dinner

7:00 pm – High Performance Buildings and Occupant Comfort

Predicted Mean Vote/Percentage Persons Dissatisfied (PMV/PPD) can be used to produce optimal designs for a number of different applications. For example, a PMV/PPD evaluation informed the owner of an existing building how to improve occupant comfort and building efficiency. **Peter Simmonds**'s work showed that varying clothing levels and metabolic rates of occupants has a relatively small effect on comfort compared to changes in engineered variables such as dry bulb temperatures, humidity, air velocity and mean radiant exchange. His presentation will review the design process for example buildings, explain the intricacies of each solution and show how ASHRAE Standard 55 can be used as an effective design and analysis tool for modern designs.

**Dr. Simmonds** has Bachelor degrees in Mechanical Engineering and Research and Development from Reading Technical College, a Masters degree from HTS, Den Bosch, The Netherlands and a Ph.D. from T.U. Delft. He is a recognized authority in the field of radiant heating and cooling systems, as well as thermal comfort. His research and applications have improved understanding of the heat transfer and performance of radiant heating and cooling systems and has led to unique ways to enhance these systems. Peter has authored or co-authored more than 60 technical papers, articles and books. These publications facilitated acceptance of radiant systems in the USA and are referenced in ASHRAE Handbooks. He is a member of several ASHRAE Technical Committees, Standard 55 and serves on the Handbook committee. In his spare time, Peter teaches Graduate and Post Graduate Architectural students at the University of Southern California and Woodbury University. He received the 1993 CIBSE Carter Bronze Medal.

***CONFIRM YOUR ATTENDANCE*** by noon on March 13, 2012 by emailing to

[ashrae.mb@gmail.com](mailto:ashrae.mb@gmail.com). Indicate any special meal requirements (vegetarian, allergies, etc.)

ASHRAE dinner meetings are open to all. Non member cost is \$45. The cost for a first time guests accompanied by an ASHRAE Manitoba member is \$25. Pre-registration is required. To pre-register or to get information on the cost of ASHRAE events, e-mail [ashrae.mb@gmail.com](mailto:ashrae.mb@gmail.com) or visit [www.ashraemanitoba.ca](http://www.ashraemanitoba.ca).

## President's Regrets

The weather, work and health have conspired against Johann this month, so he hasn't prepared a message, but he noted that March came in white and woolly like a lamb, so he expects it to go out like a lion.

Johann, shake that cold and catch up at work. We hope to see you at our March Supper Meeting.



## Coming Events

**2012 Supper Meetings**– April 12, 2012.

**March 12-13, 2012 - ASHRAE High Performance Buildings Conference: A Focus on Deep Energy Savings** in Mission Valley, Calif. A technical applications track will focus on strategies, technologies, tools, measured performance and optimal operations. A policy track will focus on current and future legislation and related programs in the areas of standards, performance rating and labeling, disclosure laws, etc. The conference targets both existing and new construction non-residential buildings. For more information on this escape from the last vestiges of winter, visit [www.ashrae.org/HPBconference](http://www.ashrae.org/HPBconference).

**Fire, Smoke Damper Installation Seminar** – ASHRAE Manitoba is planning to host a seminar dedicated to fire dampers, smoke dampers and ceiling dampers in HVAC systems in April or May. The intent is to provide contractors, system designers and code officials with an understanding of the codes and regulations as well as illustrating the specific installation methods in HVAC systems. Stay tuned to the Buffalo Tales for details.

**April 19, 2012- ASHRAE Free WebCast - “Dedicated Outdoor Air Systems: A Path to Balancing Energy and IEQ”** - the role of DOAS in the overall HVAC system, characteristics of DOAS with a parallel system vs. conventional all-air systems, various DOAS equipment configurations & typical applications, issues and challenges unique to DOAS and common design and operational pitfalls. The Webcast will be live on April 19 and available to view as an archived file until May 3 2011. Registration details will follow in time.

**April 24, 2012 – 11th Annual Better Buildings Conference & Exhibition, Winnipeg Convention Centre** - the premier event for promoting sustainable design practices, highlighting successful projects in Manitoba, and showcasing products and services related to the buildings industry. For more information, [visit the Better Buildings Conference and Exhibition website](#).

**May 11 - 14, 2012 – Region XI CRC in Winnipeg** – This is where incoming ASHRAE chapter officers learn the ropes for their new duties. Russell Lavitt and the organizing committee have already started planning the event, but it's not too late for you to get involved, too.

**June 23 – 27, 2012 – ASHRAE Annual Meeting in San Antonio Texas** –a fun town. If you want to have a good time in between learning sessions, be there.  
<http://www.ashrae.org/membership--conferences/conferences/san-antonio-conference>

**October 1-3, 2012 – Energy Modeling Conference – Tools for Designing High Performance Buildings in Atlanta**, will guide building design professionals using currently available building and energy modeling tools on what does and does not work and provide ‘workarounds’ to improve the results when the modeling tool is not be capable of modeling unique or hybrid buildings or energy systems. For more information, visit [www.ashrae.org/EMC2012](http://www.ashrae.org/EMC2012)

**November 11 to 14, 2012 – The 7th International Conference on Cold Climate HVAC in Calgary** – will provide strategies by which scientists, designers, engineers, manufacturers and other decision makers in cold climate regions can achieve good indoor environmental quality (IEQ), with a minimum use of resources and energy. The planning committee seeks papers featuring innovations in cold climate HVAC design. **Abstracts are due by Dec. 1, 2011.** For specific topics, to submit a conference paper abstract or for more information, go to [www.ashrae.org/ColdClimate](http://www.ashrae.org/ColdClimate). For additional information, contact [meetings@ashrae.org](mailto:meetings@ashrae.org).

I like long walks, especially when they are taken by people who annoy me.

## ASHRAE is about Education

ASHRAE now has six certification programs and over 1000 individuals have been certified. The programs continue to gain recognition by other organizations and by governmental bodies. Programs do not require candidates to take a course or purchase a publication and ASHRAE membership is not required. The certification examinations are available at testing centers worldwide. For information on certification programs, go to [www.ashrae.org/certification](http://www.ashrae.org/certification).

The ASHRAE Learning Institute (ALI) also has instructor-led and self-directed courses sponsored by. Detailed information for spring courses is available at <http://www.ashrae.org/education>.

## 50 Percent Energy Savings for Retail Stores Now Available, No Coupon Required

ATLANTA – Energy costs are typically the second highest operating expense for a retailer, so use of the latest 50% Advanced Energy Design Guide can help in creating a cost-effective design for medium to big box retail stores and can have a direct and significant impact on profitability.

For a discount on energy efficiency, owners, engineers, designers, architects and others on the building team are encouraged to download Advanced Energy Design Guide for Medium to Big Box Retail Buildings: Achieving 50% Energy Savings Toward a Net-Zero-Energy Building. The Guide applies to medium to big box retail buildings with gross floor areas between 20,000 and 100,000 sq. ft.; however, many of the recommendations also can be applied to smaller or larger retail buildings.

It is the third book in a series of Advanced Energy Design Guide (AEDG) publications that provides recommendations to achieve 50% energy savings when compared with the minimum code requirements of ANSI/ASHRAE/IESNA Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential Buildings.

“When the comfort of a customer can impact a purchase in a shopping environment it’s important for retail stores to find a balance between energy efficient measures for the building and the convenience for their customers,” Shanti Pless, chair of the AEDG project committee, said. “This guide offers guidance and tips for implementing successful energy savings strategies while

enhancing the shopping experience.”

The new guide features easy-to-follow recommendations for each of the US climate zones and tips on how to implement those recommendations. Case studies and technology examples provide real-life examples of how retailers have achieved significant energy savings.

Also included is information on integrated design, including best practices as a necessary component in achieving 50% energy and the inclusion of a performance path—specifically, offering annual energy use targets to help with goal setting.

Additional design tips include:

- Information on integrating absolute energy use targets into the design process.
- Retail-specific whole building and technology case studies.
- Different vestibule configurations to reduce outdoor air infiltration.
- Different ways to daylight sales floors, storage areas, offices and conference/break rooms.
- Methods to achieve space-by-space interior lighting power densities that are, on average, 45% better than Standard 90.1-2004.
- Sample design layouts and recommendations for ambient lighting, perimeter lighting, and accent lighting; including LED display lighting.
- Ways to reduced exterior (façade, walkway, parking lot and drive) lighting energy consumption.
- Recommendations for reduction and control of sales floor plug loads, office equipment, security system plug loads, vending machines, illuminated signs, and service water heating.
- HVAC roof-top unit configuration and zoning strategies.
- HVAC ventilation air control strategies.
- Recommendations for commissioning and measurement and verification to ensure that energy savings potentials are realized.

The book was developed by a committee representing a diverse group of energy professionals drawn from ASHRAE, the American Institute of Architects (AIA), the Illuminating Engineering Society of North America (IES), the Department of Energy (DOE) and the United States Green Building Council (USGBC).

ASHRAE, AIA, IES, DOE and USGBC are currently developing the fourth and final guide in the 50% series, which will focus on large hospitals and be available in the spring of 2012.

The guide follows the earlier six-book series that provided guidance to achieve 30% savings. The ultimate goal is to provide guidance to achieve net-zero-energy buildings, i.e., buildings that produce at least as much energy as they consume. If you are not on the ASHRAE Manitoba board and are among the first four to email Bert Phillips saying you read this article, show up at the March supper meeting and he will buy you a drink, assuming his Wednesday evening flights get him home from Atlanta in time for the Thursday evening meeting. If not, the drink will have to wait until April.

Advanced Energy Design Guide for Medium to Big Box Retail Buildings: Achieving 50% Energy Savings Toward a Net-Zero-Energy Building is available as a free download at [www.ashrae.org/freeaedg](http://www.ashrae.org/freeaedg). A print version is available for \$82 (\$69, ASHRAE members). To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478. Bulk discounts are available to individuals, companies and organizations who are interested in purchasing multiple copies.

ASHRAE, founded in 1894, is a building technology society with more than 50,000 members worldwide. The Society and its members focus on building systems, energy efficiency, indoor air quality and sustainability within the industry. Through research, standards writing, publishing and continuing education, ASHRAE shapes tomorrow's built environment today.

## **ASHRAE Technology Awards Highlight Outstanding Building Projects**

The ASHRAE Technology Awards recognize outstanding achievements by members who have successfully applied innovative building design. Their designs incorporate ASHRAE standards for effective energy management and indoor air quality. The awards communicate innovative systems design to other ASHRAE members and highlight technological achievements of ASHRAE to others around the world. Winning projects are selected from entries earning regional awards.

If you have designed an innovative project, consider submitting it for an ASHRAE Technology Award. Winners get international recognition including being written up in the ASHRAE Journal. This is publicity and recognition you can't easily buy, but you can earn. For details on how to enter or for more information on past winners go to <http://www.ashrae.org/members/page/1646>

## **Help Wanted - Assistant Editors for Buffalo Tales**

I have been the editor of Buffalo for most of the past 20 years. In the future I have travel plans that conflict with my ability to assemble newsletters in a timely fashion. So, I am looking for one or more assistant editors to cover the position during my absences. The newsletter would also benefit from new views and more variety. This is a chance for you to test drive the position and determine if it strikes (or strokes) your fancy.

As I aged, I thought it was great that I seemed to become more patient. Now I realize it is because I don't give a %~#>/ anymore.

## ASHRAE Manitoba Chapter Officers

President	Johann Baetsen	Epp Siepman Engineering	453 1080	jbaetsen@eppsiepman.com
President Elect	Corey Nation	EH Price	982 2222	coreyn@price-hvac.com
Vice President	Stephen Norsworthy	SNC-Lavalin Inc.	786 8080	stephen.norsworthy@snclavalin.com
Secretary	Mark Windeatt	Engineered Air	632 8535	mark.windeatt@engineeredair.com
Treasurer	Doug Castor	EH Price	982 2220	DougC@price-hvac.com
Board of Governors	Sergio Almeida	Geo-Xergy Systems Inc.	255 5959	sergio@geoxergy.com
	Robert Bisson	Public Schools Finance Board	945 8452	robert.bisson@gov.mb.ca
	Peter Gryc	SMS Engineering Ltd	789 2346	pgryc@smseng.com
	Daryl Friesen	Midwest Engineering Ltd	989 3636	daryl@midwesteng.mb.ca
Technology Transfer	David Surminski	Price Industries	661 7866	DavidS@price-hvac.com
Membership	Stephen Norsworthy	SNC-Lavalin Inc.	786 8080	stephen.norsworthy@snclavalin.com
Research Promotion	Jesse Sandhu	Tetra Tech	954 6902	Jesse.Sandhu@tetrattech.com
Student Activities	Scott Hammond	SMS Engineering Ltd	789 2323	shammond@smseng.com
Honors and Awards	Vacant			
Newsletter Editor	Bert Phillips	UNIES Ltd	633 6363	phillips@unies.mb.ca
Homepage Editor	Stephen Norsworthy	SNC-Lavalin Inc.	786 8080	stephen.norsworthy@snclavalin.com
2012 CRC Chair	Russell Lavitt	SMS Engineering Ltd	789 2312	rlavitt@smseng.com
Programs	David Surminski	Price Industries	661 7866	DavidS@price-hvac.com
Refrigeration Chair	Brian Blahey	Lowe Mechanical Services	233 3292	bblahey@lowecanada.com
Accommodations	Stephen Norsworthy	SNC-Lavalin Inc.	786 8080	stephen.norsworthy@snclavalin.com
Chapter History	Robert Bisson	Public Schools Finance Board	945 8452	robert.bisson@gov.mb.ca
YEA	Scott Hammond	SMS Engineering Ltd	789 2323	shammond@smseng.com
Special Events	Corey Nation	EH Price	982 2222	coreyn@price-hvac.com

## ASHRAE Region XI Officers

Director & Regional Chair	Erich Binder	Erich Binder Consulting	Calgary	erich.binder@worleyparsons.com
Assistant Regional Chair	Kevin Marple	Benz Air Engineering	Portland	kmarple@benzco.com
Technology Transfer	Eileen Jensen	Bonneville Power	Portland	nejensen@bpa.gov
Membership	Murdoch MacPherson	MacPherson Engineering	Regina	m.macpherson@mac-eng.ca
Student Activities	Doug LeCren	Colt Engineering	Anchorage	douglas.lecren@nanworleyparsons.com
Young Engineers in ASHRAE	Tariq Amlani	Stantec		tariq.amlani@stantec.com
Resource Promotion	Ray Sieber	Sask. Research Council	Regina	sieber@src.sk.ca
Nominating Committee	Norm Grusnick	ECCO Manufacturing	Langley	ngrsnick@ecomfg.com
Regional Historian	Kevin Marple	Benz Air Engineering	Portland	kmarple@benzco.com
	Bill Dean	National Research Council of Canada	Saskatoon	bill.dean@nrc-cnrc.gc.ca
Treasurer	Rob Craddock	Inland Metal Manufacturing	Regina	rob@inlandmetal.ca
Web Page Editor	Kathy Habke	SAC ASHRAE	Calgary	chapter.administrator@sac-ashrae.com
2012 CRC Chair	Russell Lavitt	SMS Engineering Ltd	789.2312	rlavitt@smseng.com

**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 ([ashrae.mb@gmail.com](mailto:ashrae.mb@gmail.com)) or visit ASHRAE Manitoba at [www.ashraemanitoba.ca](http://www.ashraemanitoba.ca)

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

Statements in this publication are not expressions of the Society or of the Chapter.

Articles may be reproduced without permission. Please credit the source.