

Mid-Columbia Chapter of  
the American Society of  
Heating, Refrigerating and  
Air Conditioning

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November 2007

# The

# Tumbleweed



<http://www.midcolumbia.ashraechapters.org>

## ***Don't Miss This Month's Event***

**November 13, 2007**

**All Climate  
Air-to-Air  
Heat Pumps**

*Details on page 3*

## **Presentation on Data Center Design by David Toralez**

The Mid-Columbia ASHRAE Chapter October lunch program meeting was held at the Clarion Hotel in Richland on October 16th, 2007. There were fifteen members present at the meeting.

Mr. David Toralez of Liebert Corporation gave a great presentation on data center design. The presentation started with a discussion with heat trends in data centers. Heat loads in data centers have been increasing over the last few years, and that trend is expected to continue, and most likely to escalate. Mr. Toralez then talked about effective cooling limitations of traditional solutions, raised floor/perforated floor tiles and aisle configurations. Mr. Toralez also gave a detailed comparison between non-raised floor design and raised-floor design and presented the strengths and weakness for both design solutions. Non-

raised floor designs have the ability to put data centers in buildings with low floor-ceiling heights and has a low initial cost for small spaces. But, this design solution has drawbacks such as the requirement of higher fan-energy for ducting. While raised-floor design offers the ability to get cooling where it is needed and allows easy rearrangement in the location and number of perforated tiles, it also has some weakness.

Various metrics and roadmaps including Best Practices were reviewed and the presentation was concluded with a good discussion on air/water economizer application in data center design and opportunities for energy savings in data centers.

## **Occupant Reactions to IEQ in Offices Presented at ASHRAE Conference**

ATLANTA – Glare, noise level and cold drafts during winter months were top concerns of building occupants surveyed in an Australian study regarding indoor environmental quality (IEQ) in office buildings.

Results of the survey will be shared at ASHRAE's IAQ 2007: Healthy and Sustainable Buildings conference, Baltimore Oct. 14-17. For more information, visit [www.iaq2007.org](http://www.iaq2007.org).

Occupants of two new buildings in Melbourne were asked about their satisfaction with design features and IEQ including temperature, airflow, air contaminants, sound pressure level, view, lighting and workspace configuration.

Researchers at the University of Melbourne found that the occupants' complaints dealt with areas related to building operation processes, lack of personal control and noise level.

"The study confirms that it is useful for understanding how design and environmental quality design features impact occupants," Maxwell Ashibuogu Chiazor, a doctoral student at the University of Melbourne, said. "The study shows that well-being and physiological discomfort are the two factors that account for occupants' reactions to design and environmental quality. This information is useful for decisions about workplace configuration and building energy efficient design features."

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.

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## Message from the President

By Lois Payne

November is always a time of reflection for me as I contemplate all the things I have to be thankful for. One of those things is the camaraderie we share in this Chapter.

We are looking forward to having Mr. Greg Jourdan, our Student Activities Chair, and Mr. Bruce Dobbs, our Regional Vice-Chair for Student Activities attend our Technical Program meeting on "All Climate Air to Air Heat Pumps for Cold Climates" presented by Greg Jourdan who is an instructor at W-natchee Community College.

I have been focusing on our member's information and would ask each of you to please go to the ASHRAE web page and update your biographical information, otherwise known as your "Bio." This will assist in preparing nominations for honors, awards, and regional positions at the Chapters Regional Conference and provides the Mid-Columbia Board of Directors with the opportunity to show our thanks and appreciation to those

who have contributed to the success of this Chapter.

With Christmas coming up next month, I encourage all of you to plan to bring your spouse to our festive Program Meeting. Jay Ashbaugh is working hard to plan the event and I am thankful for that also!

As with other non-profit organizations, ASHRAE will be asking for your pledge to support ASHRAE's research projects, so you may receive a phone call from Gil Hibbs, Research Promotion chair or his committee members.

Another item of interest (you should check it out) is our Regional Newsletter "The Moose" which can be found on the ASHRAE website.

I look forward to seeing you at our Technical Program and wish you all a Happy Thanksgiving!

## ASHRAE Provides Guidance on Achieving Good IAQ

ATLANTA – Providing design guidance on how to achieve good indoor air quality is the aim of a proposed guideline from ASHRAE now open for public comment.

Guideline 24P, Ventilation and Indoor Air Quality in Low-Rise Residential Buildings, is the companion guideline to ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings. The guideline currently is open for public comment until Oct. 29, 2007.

The proposed guideline would provide information on envelope and system design, material selection, commissioning and installation, and operation and maintenance.

The guideline goes beyond the requirements contained in Standard 62.2 by providing explanatory and educational material that would be inappropriate in the code-intended standard.

Topics addressed in the guideline but not covered in the standard include carbon monoxide alarms, air distribution, better air filtration and unvented combustion appliances.

"While both Standard 62.2 and Guideline 24P seek to provide acceptable indoor air quality, the

guideline goes beyond by providing additional information for achieving good indoor air quality," Steve Emmerich, chair of the committee writing the guideline, said. "The guideline also provides information on topics such as verification of ventilation equipment performance and operations and maintenance, which, though important, are not easily addressed in a code-intended standard."

A draft of proposed Guideline 24P is available during the public review period. To read the guideline or to comment, visit [www.ashrae.org/publicreviews](http://www.ashrae.org/publicreviews).

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## This Month's Event

Tuesday, November 13, 2007

### All Climate Air-to-Air Heat Pumps for Cold Climates

Speaker: **Greg Jourdan**

#### Description:

The effective use of All-Climate air-to-air heat pumps in cold climates to minimize energy consumption.

#### About Greg Jourdan:

For the past 23 years, Mr. Greg Jourdan has been on the Faculty and is a professor at the Wenatchee Valley College. Mr. Jourdan is also a Consultant to Chelan PUD Energy Services. Mr. Jourdan has also been a Project Engineer for ATS Automation, and worked as a Control Technician for The Trane Company, Siemens, and Honeywell.

Mr. Jourdan received an AS Degree in Air Conditioning and Heating Technology in 1977 and a BS Degree in Industrial Arts and Technology in 1979 from Central Missouri State University. He also received a Masters of Adult and Continuing Education from Washington State University in 1994.

**Location:** MEIER Enterprises, Inc.  
8697 Gage Blvd  
Kennewick, WA, 99336

**When:** 6:00 pm—Social and Dinner  
6:30 pm—Program

**Cost:** \$15.00 Dinner and Program

**RSVP:** Jay Ashbaugh at (509) 735-1589  
[jpashbaugh@meierinc.com](mailto:jpashbaugh@meierinc.com)

Please RSVP by November 12, 2007 if you plan to attend.

## Program Calendar (2007–2008)

**September 11, 2007:** *Low NOx Burners 101, Don Williams*

**October 16, 2007:** *Data Center Design, David Toralez*

**November 13, 2007:** *All-Climate Air-to-Air Heat Pumps, Greg Jordan*

**December 11, 2007:** *Containments IAQ, Bert Phillips, ASHRAE DL*

**January 15, 2008:** *TBD*

**February 22, 2008:** *Engineers Week Banquet*

**March 9, 2008:** *TBD, Kent Peterson, ASHRAE President*

**April 15, 2008:** *TBD*

**May 13, 2008:** *TBD*

**June ??, 2008:** *Mid-Columbia ASHRAE Golf Tournament to benefit ASHRAE Research.*

## Mid-Columbia ASHRAE Chapter

2007-2008 Officers/ BOG

President (509) 438-9561	Lois Payne <a href="mailto:lois_payne@rl.gov">lois_payne@rl.gov</a>
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*The Mid-Columbia Chapter of the American Society of Heating, Refrigerating and Air Conditioning Engineers was chartered in 1981 in Richland, Washington. We are part of ASHRAE Region XI and represent ASHRAE members in Eastern Washington State.*

### Help Sponsor our Website with a Business Card Ad

How would you like to place your business card in front of more than seventy eastern Washington ASHRAE members? For a low \$10 an issue, we can place your business card with company logo in a prominent location in our newsletter.

Interested??? Contact

Mark Simon at (509) 377-8713

[msimon@energy-northwest.com](mailto:msimon@energy-northwest.com)

### Important Notice About Future Meeting Dates

The dates for the Winter and Annual Meetings in 2008 and 2009 are:

- **2008**, Jan. 19-23 in New York, and June 21-25 in Salt Lake City, Utah.
- **2009**, Jan. 24-28 in Chicago, and June 20-24 in Louisville, KY.

