

Energy Efficiency and Indoor Air Quality Must Go Hand in Hand

ATLANTA – Finding the balance between environmental health and energy efficiency in the pursuit of low energy buildings is examined in a paper at the upcoming ASHRAE IAQ 2013, setting the tone for discussion for the entire conference.

“Neglecting indoor air quality while pursuing other goals can result in building environments that negatively impact the health, comfort and productivity of occupants and therefore defeat the overall goal of building design, including reduced costs,” Kevin Teichman, a senior science advisor at the U.S. Environment Protection Agency, said. “While building design is key to achieving a high-performing building, it is critically important to follow these good intentions through construction, commissioning, operation and maintenance. Only in this way will high-performing buildings actually perform as designed.”

Teichman’s papers are among 80 conference papers and extended abstracts being presented at IAQ 2013, Environmental Health in Low-Energy Buildings, which takes place Oct. 15-18, 2013, in Vancouver, British Columbia, Canada. This conference is the 17th in the ASHRAE IAQ conference series and is co-organized by ISIAQ.

Registration is now open for the conference. To register and for complete conference information, visit www.ASHRAE.org/IAQ2013. An early bird rate expires Aug. 31 but advanced registration is open through Sept. 30, 2013.

Teichman’s paper, “Indoor Air Quality in High-Performing Building Case Studies: A Wealth of Intent, A Dearth of Data,” examines the role of indoor air quality in high performing buildings, focusing on case studies in ASHRAE’s High Performing Buildings magazine. The paper was co-authored by Andrew Persily and conference co-chair Steve Emmerich, mechanical engineers at the National Institute of Standards and Technology.

A panel discussion on the topic also is planned.

“While progress has been made in achieving sustainable, high-performance buildings, it is noteworthy that many discussions of green, high-performing and certainly net-zero energy buildings tend to focus on energy consumption,” Teichman said. “Energy is critically important, but is only one aspect of performance and should not be pursued to the neglect of the others.”

The conference seeks to describe the current state-of-understanding of the relationship of IEQ in high-performance buildings.

“There are not a lot of data on IEQ in high performance

buildings, but this conference will bring the collective knowledge of the industry together to set a benchmark, if you will, on where we are and how we should move forward,” Hal Levin, conference co-chair, said. “It will be important in identifying critical gaps in our knowledge and potential priorities for future ASHRAE research, standards and guidelines.”

The state of knowledge will be summarized in written “topic overviews” to be included in the Conference proceedings publication. These overviews may include comments on papers in the sessions; provide supplemental information; summarize the state of the art; include suggestions for high-priority research, as well as identify areas that are well researched; or include recommendations to ASHRAE about implementation of energy conservation and IEQ design activities, Levin said.

The Conference features papers and presentations in nine tracks, which include

- Environmental Health in Low-Energy Buildings
- Moisture and Health
- Sources and Chemistry
- Indoor Environmental Quality Factor Interactions
- Residential Buildings
- Commercial and Institutional Buildings
- Air Cleaning and Filtration
- Microorganisms and Infection
- Tools (models, measurements and more)

Plenary Lectures are given by four distinguished international authorities:

- William Bahnfleth, Ph.D., P.E., Fellow ASHRAE, ASME Fellow, Pennsylvania State University, 2013–14 ASHRAE president, “Are We Putting Enough Energy into Making Buildings Healthy?”
- Richard Corsi, Ph.D., P.E. University of Texas, Austin, Indoor Air 2011 president, “Building Energy and Reactivity”
- Mark J. Mendell, Ph.D., Lawrence Berkeley National Laboratory and California Department of Public Health, “Do We Know Much about Low Energy Buildings and Health?”
- Pawel Wargocki, Ph.D., Danish Technical University, ISIAQ president, “What Can Europe Teach Us?”

Don't Miss This Month's Event

September 17th, 2013

Active Chilled Beams

By: Chris Lawrence, VP of Sales, Dadanco

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Message from the President

By Jian Zhang

As the 2013-2014 ASHRAE year starts, I'd like to thank all Mid-Columbia Chapter members for supporting ASHRAE and our Chapter. As a short self-introduction, my name is Jian Zhang and I am a building research engineer at PNNL. I have been serving our chapter since 2010 through three positions: Treasurer (2010-2011); Secretary (2011-2012); and CTC Chair and President-Elect (2012-2013).

Following the chapter nomination and election procedure during the summer, we have all Board of Governor (BOG) positions confirmed. You can find the BOG list in this newsletter. Most of the 2012-2013 BOG members remain on the Board with the same or new positions. Rahul Athalye from PNNL joined our BOG this year as our new Treasurer. Welcome to Rahul! Mark Simon moved out of our chapter area this year. We congratulate Mark's new position and also appreciate his voluntary contributions to our chapter for the past several years. I am confident that with help from our BOG and members, we will have a successful ASHRAE year.

Beside the regular chapter operations, in this year our chapter will host the 2014 ASHRAE Region XI's Chapter Regional Conference (CRC) May 8-10 2014 at Red Lion Hotel, Richland, WA. CRC is an annual conference within each Region and it is intended to provide a forum for the dissemination of information pertaining to chapter and regional activities. All members are welcome to attend the conference. For more details, you can read the *Manual For Conducting Chapters Regional Conferences* on ASHRAE website. Our chapter BOG authorized the CRC Organizing Committee chaired by Dr. Sriram Somosundurum at PNNL to organize the CRC on behalf of our Chapter. Several volunteers are on the committee including Sriram Somosundurum, David Atkinson, Derek Archer, Weimin Wang, Rahul Athalye, Jay Ashbaugh, Gregory Jourdan, Steve Strecker, Linda Strecker, Dale Green, Ron Jarnagin, Supriya Goel, and Jian Zhang. We are also looking for more volunteers to join the CRC Organizing Committee to help. Throughout the year, we'll provide updates through our chapter Newsletter,

website, and CRC webpage to our members.

A good opportunity for YEA members through DRC Shadow Program. The program allows a YEA member to attend a winter or Annual Meeting largely at the expense of the region and gain experience at a Society level by shadowing the DRC of Region XI. Each chapter may nominate one member. Two members from the region will be selected by the DRC, YRC and Membership Chairman, One to attend the winter meeting and one to attend the Annual meeting. Region will subsidize the Candidate's expenses up to \$1,000 including travel, transportation, accommodations, Meeting registration, Welcome party, President's luncheon, Member's night out, parking and Regional Dinner. If you are interested, please contact me at j.zhang@pnnl.gov for more details before September 23rd 2013.

At last, please remember to attend our monthly program meeting on September 17. Chris Lawrence from Dadanco will be making a presentation entitled Active Chilled Beams. See more details in later section of this Newsletter.

This Month's Event

Chris Lawrence, VP of Sales, Dadanco

With over 35 years' experience in the selection and application of HVAC products and devices and over 20 years in the application of passive and active chilled beams, the last 8 years of which have been based in North America.

Has been successful on many of the largest Chilled Beam projects in North American, including Constriction Center (7000 beams), Fidelity (3000 beams) as well as installations at MIT, Stanford, Princeton, Cornell, Harvard, Dartmouth, Yale, VCU, UCSC & UC Davis etc.

Title: Active Chilled Beams

Modern chilled beam systems have only in recent years begun to have a significant uptake in North America in recent years, after being pioneered in Europe. They can contribute to energy efficiency of buildings, as well as offer flexibility to both the architect and engineer to meet difficult project goals. This presentation will focus on some of the more advanced concepts with chilled beam applications including when to use them (or perhaps more importantly, when NOT to use them), how to take more advantage of temperature differences in your chiller plant, as well as a recap of the basic chilled beam concepts of decoupling the space latent loads from the sensible loads in a building.

WHEN: Tuesday September 17th, 2013

TIME: Noon to 1 PM

Cost: \$5—For Pizza and Soda

WHERE: Meier Architecture-Engineering Offices

8697 Gage Boulevard

Kennewick, WA 99336

RSVP to Derek Archer dlarcher@meierinc.com

Program Calendar (2013–2014)

September 17, 2013: Chris Lawrence - Active Chilled Beams

October 8, 2013: TBD

November 12, 2013: TBD

December 10, 2013: TBD

January 14, 2014: : TBD

February 2014: Engineers Week Banquet

March 11, 2014: TBD

April 9, 2013: TBD

May 2013: ASHRAE Region XI Chapter Regional Conference. Richland, WA. Details To Be Announced.

June 2014: Mid-Columbia ASHRAE Golf Tournament to benefit ASHRAE Research, Location and date TBD



Mid-Columbia ASHRAE Chapter

2013-2014 Officers/ BOG

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|-------------------------|--|
| President | Jian Zhang j.zhang@pnnl.gov |
| President-Elect | Derek Archer dlarcher@meierinc.com |
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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
Derek Archer at (509) 737-6982
dlarcher@meierinc.com

Important Notice About Future Meeting Dates

Registration is now open for ASHRAE's 2014 Winter Conference in New York, NY, January 18-22, 2014 at the New York Hilton.

2014 Region XI CRC coming up May 1st -3rd located at the Red Lion Hotel in Richland, WA. Details to be announced.

Mid Columbia ASHRAE Golf Tournament June 2014. Details to be announced

