

Lehigh Valley Insights

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MEETING NOTICE

WWW.LVASHRAE.ORG

Wednesday, Sept 28, 2011

BACK TO THE BASICS: PSYCHROMETRICS 101

Presenter: Donovan Denlinger

**Mango's Coastal Cuisine
3750 Hamilton Blvd. Allentown, PA 18103
(Route 222 North)**

Attendees will receive a certificate for 2 PDH.

4:30 – 5:30 p.m.	Board of Governors Meeting (Chapter members are welcome to attend)
5:30 – 6:15 p.m.	Pre-Dinner Session Topic: Psychrometrics 101
6:15 – 7:00 p.m.	Dinner
7:00 – 8:00 p.m.	Dinner Program Topic: Psychrometric Applications

Reservations: Frank Paretti
Email: paretti.frank@gmail.com

Members & Guests \$30.00 for Buffet

Please make your reservations by Noon on Monday, Sept 26, 2011.

Members can utilize Pay Pal online payment option on our website (www.lvahrae.org) for your RSVP.

President's Message

Ladies and Gentlemen,

Hope you and your families were able to enjoy your summer. As our kids go back to school our first chapter meeting will go back to the basics reviewing psychometrics 101 and reviewing some psychometric applications including energy recovery, dehumidification strategies. I look forward to seeing you at our upcoming September meeting.

Looking for a way to highlight the knowledge and experience you have? Ever consider ASHRAE's certification programs? See ASHRAE's website for all the different certifications ASHRAE offers. These included: Building Energy Modeling Professional, and High-Performance Building Design Professional.
<http://www.ashrae.org/certification/>

Our chapter is looking for volunteers. Currently open chapter positions include President Elect, CTTC Chair, and Webmaster. Please see me to put your skills to work in one of these opportunities.

Donovan Denlinger
President
Lehigh Valley Chapter - ASHRAE

Sept 28th Meeting

Psychometrics 101: The material for this presentation will be taken from a manufacturer's technical development program and includes a review of:

- Properties of air and water
- Overview of the Psychrometric Chart
- Sensible heating and cooling
- Humidification
- Dehumidification
- Evaporative Cooling
- Cooling
- Heating and Humidification
- Heating and Dehumidification
- Practical strategies for dehumidification and humidification.

Presenter: Donovan Denlinger, LEED AP

Mr. Denlinger is a Sales Engineer for Carrier Corporation with the commercial direct sales division located in Plymouth Meeting, PA. For over 13 years, Donovan has been responsible for application support of commercial HVAC equipment, and project management of equipment purchased. Donovan is a graduate of Ferris State University, MI with a Bachelors of Science in HVACR engineering technology. He is a LEED accredited professional and is currently the ASHRAE Lehigh Valley Chapter President.

Standard 90.1-2007 Established as National Reference Standard for Federal, Commercial Buildings by DOE

Commercial and high-rise residential buildings, including federal buildings, must now meet requirements in ASHRAE/IESNA's 2007 energy efficiency standard, under recent rulings issued by the United States Department of Energy (DOE) that finds the standard saves more energy than the 2004 version.

ANSI/ASHRAE/IESNA Standard 90.1-2007, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, has been established by the DOE as the commercial building reference standard for state building energy codes under the federal Energy Conservation and Production Act. As a result, states are required to certify by July 20, 2013, that they have reviewed and updated the provisions of their commercial building code regarding energy efficiency, including a demonstration that the provisions of their commercial building codes regarding energy efficiency meet or exceed 90.1-2007.

The DOE also has issued a rule that requires new federal buildings, for which the design for construction begins on or after Oct. 11, 2012, to meet the requirements of 90.1-2007.

Prior to the new rules, federal and commercial buildings had to meet requirements in the 2004 standard.

“We are pleased with this recognition that the 2007 standard saves more energy than the 2004 standard, thereby pushing the marketplace toward more energy-efficient buildings,” ASHRAE President Ron Jarnagin said. “ASHRAE continues to build on the foundation of efficiency contained in Standard 90.1. We recently published the 2010 version of the standard, which results in more than 30 percent energy savings over the 2004 version. We currently are working on the 2013 standard, with a renewed focus on increasing the stringency to achieve a significant reduction in energy consumption.”

The Illuminating Engineering Society (IES), cosponsor of the 90.1 standard, is also pleased with the DOE’s favorable determination on the energy savings achieved in 90.1-2007, according to Rita Harrold, IES director of technology.

“As ASHRAE President Ron Jarnagin indicates, the work is ongoing through the dedication and expertise of voluntary consensus committee members from both organizations who continue to meet the challenge of developing additional requirements for energy efficient buildings,” Harrold said.

“The DOE has determined that the quantitative analysis of the energy consumption of buildings built to Standard 90.1-2007, as compared to buildings built to Standard 90.1-2004, indicates national source energy savings of approximately 3.9 percent of commercial building consumption,” according to the DOE. “Additionally, DOE has determined site energy savings are estimated to be approximately 4.6 percent.”

The DOE noted that the newer version of the standard contained 11 positive impacts on energy efficiency. These impacts included changes made through the public review process in which users of the standard comment and offer guidance on proposed requirements. The positive impacts include:

- Increased requirements for building vestibules;
- Removal of data processing centers and hotel rooms from exceptions to HVAC
- Modification of requirements regarding demand controlled ventilation, fan power limitations, retail display lighting requirements, cooling tower testing requirements, commercial boiler requirements, part load fan requirements, opaque envelope requirements and fenestration envelope requirements.

ASHRAE and IES currently are working on the 2013 standard, having published the 2010 last year. Some 30 percent energy savings can be achieved using the 2010 version of Standard 90.1 vs. the 2004 standard. Without plug loads, site energy savings are 32.6 percent and energy cost savings 30.1 percent. Including plug loads, the site energy savings are estimated at 25.5 percent and energy cost savings 24 percent.

Since being developed in response to the energy crisis in the 1970s, Standard 90.1 now influences building designs worldwide. It has become the basis for building codes, and the standard for building design and construction throughout the United States. ASHRAE and IES publish a revised version of the standard every three years.

Research Promotion

Good day fellow members

As we kick off this year's campaign, I want to stop and say thank you to every member for last year's campaign successes. The golf outing and the campaign as a whole were incredible. Last year marked a new Lehigh Valley record for donations to ASHRAE research. I am hoping that this year we can do the same again. The goal set down this year is \$ 5,500.00 and I believe with our past results we should be able to easily surpass this.

I would like to personally thank Mike Shultz of the Trane Company for his efforts as the Vice President of the Golf outing committee. Also, I would like to thank Gabe Badesso of Trane Company and Donovan Denlinger of Carrier Corporation for their support and volunteerism on the day of the event to make it a success.

Finally, I cannot wait for the first meeting to begin so that we can get this year kick started the right way. Hope to see you all there.

Thank you,
Frank Paretti
Research Promotion Chair

**LEHIGH VALLEY CHAPTER OF ASHRAE
2011-2012 MEETING SCHEDULE**

MONTH	TECHNICAL/DINNER PROGRAM	EVENT	PROGRAM CHAIR
Sept 29 th	Back to the Basics: Psyrometrics 101		Donovan Denlinger
Oct. 26 th	DOE Energy Innovation HUB Dr James Freihaut, PSU	Membership Promotion	Bill Trach
Nov. 30 th		Joint IFMA Meeting (AM Mtg)	
Dec.	No Meeting		
Jan 19 th	BIM Modeling		
Feb. 23 rd	Natural Ventilation	Research Promotion	
Mar. 16 th			
Apr. 19 th	Dedicated Outdoor Air Webinar	A Path to Balanced Energy & IEQ	
May 23 rd	Tour		
June 1st	Annual Golf Outing	Support of Research Promotion	