

Refrigerating & Air-Conditioning Engineers

[www.daytonashrae.org](http://www.daytonashrae.org)



**2015-2016 OFFICERS**

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**Mark Your Calendars**

*August 19th*

**Board of Governors**  
8AM, Heapy Engineering

*September 2nd*

**Dayton Green Expo**  
10AM, UD River Campus

*September 16th*

**Board of Governors**  
8AM, Heapy Engineering

**Inaugural Bocce Ball Tournament**



**September 19th**

Tournament begins at 9:00am

**It's Not Too Late to Sign Up Your Team**

**See Additional Attachment for Details**

**Ice Storage Talk**



**October 12th**

Engineer's Club  
110 East Monument  
Dayton, Ohio 45402

**Tech Sessions: 5:00pm to 6:00pm**

"Need to Know: Beginning an Ice Storage Project"

**Social/Cocktail: 5:30pm to 6:30pm**

An in depth look at the feasibility, energy saving potential, and complete benefits associated with an ice storage project.

**Presentation to Follow**

Committee Chairs**Membership****JEREMY FAUBER**JPFauber@heapy.com  
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Wat-Kem MechanicalBoard of Governors**JEREMY FAUBER**

Heapy Engineering

**RICK PAVLAK**

Heapy Engineering

**LARRAINE KAPKA**Sinclair Community  
College**A Note from the President:**

Thanks to all who stopped by the ASHRAE table at the 10<sup>th</sup> annual Green Expo! Hopefully everyone enjoyed the vendor booths and took something away from the afternoon sessions! The Dayton Chapter ended up sponsoring one Distinguished Lecturer and our ASHARE Region V ended up sponsoring the other. There is still plenty of time to sign up for our A.M. Bocce Ball tournament on 9/19/15. So far we have about 5 teams signed up, but can accommodate plenty more. We will feature free coffee and donuts, donations for beer, and be grilling out! All for \$25; which will all donate to our chapter scholarship fund. Contact Treasurer Rob Mauro for more details. Our first chapter meeting at the Engineer's Club is approaching. It will be a research promotion appreciation night, featuring presentations on Ice Storage. Hope to see you there! Thanks.

*Mike Kennedy*—President, Dayton ASHRAE**Remember When... (1992/93)**

President:	David Schmenk	Montgomery County
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# Employers!

## Have an Open Position?

Advertise in your Dayton ASHRAE Newsletter and on the Dayton ASHRAE Website.

Business-card size ad for \$20 a month or \$100 a year.

All proceeds to Dayton ASHRAE Scholarship Fund.

Send ad copy to:  
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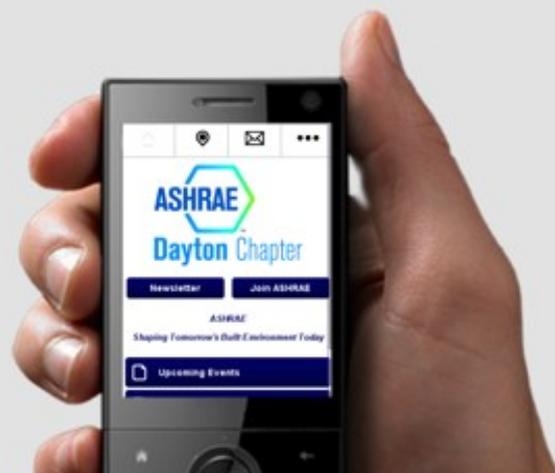


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<http://m.daytonashrae.org>



# Now is a Good Time to Get Involved in ASHRAE!

## *Go National...*

## Apply for Membership on a Technical Committee!

*ASHRAE welcomes new members to its technical committees.*

To be considered for technical committee membership, you must:

- ◆ Notify ASHRAE staff at [TCStaff@ashrae.net](mailto:TCStaff@ashrae.net) of your interest in a particular TC, TG, TRG, or MTG.
- ◆ Create or update your ASHRAE biographical record under the “[Manage Your Membership](#)” link from the ASHRAE Web site.

# Research Promotion Honor Roll

## *Individuals*

### *HONORS (\$100 or more)*

*Thomas J Ferdelman*

*Mike Kennedy*

*Nathan Lammers*

*Thomas E Mastbaum*

*Robert A Mauro*

*Steven N Meier*

*Evan Nutt*

*Sumeta Sachdeva*

*Bryan W Schenck*

*Samuel T Tobias*

# Research Promotion 2014-2015

2014-2015 saw ASHRAE continue it's leadership in developing standards and guidance for the design, operation, and maintenance of healthy, energy-efficient buildings. Once the final numbers are tabulated for 2014-15, the Dayton Chapter will have exceeded all it's fundraising goals and is expected again to be tops in Region V. Research dollars help fund the science behind the handbooks and standards, making sure that guidance has a solid foundation.

# Research Promotion News



Currently, we have achieved

**7.5% (\$1,000 of \$13,250)**

of our yearly goal

Make YOUR donations by following the directions on Page 6.

# ASHRAE News!

## Lighting, Climate Zone Changes Proposed for ASHRAE/IES Energy Standard

ATLANTA – Changes regarding lighting and climate zones are being proposed to the energy standard published by ASHRAE and the Illuminating Engineering Society (IES). Twenty-three addenda to ANSI/ASHRAE/IES Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, are open for public comment starting Sept. 4, 2015. To comment or learn more, visit [www.ashrae.org/publicreviews](http://www.ashrae.org/publicreviews). Among the addenda open for public comment is addendum *ch*, which proposes a new set of interior lighting power densities (LPD) limits for both building area and space by space compliance paths. These new LPD limits stems from inclusion of light emitting diode (LED) technology into the space type models that are used to determine appropriate LPD limits for compliance with the standard, according to Eric Richman, chair of the standard's lighting subcommittee. These LPD limits (watts per square foot) are calculated using IES formulas that relate lighting energy use to lighting quantity based on the application of appropriate lighting technologies into individual space models. These models incorporate efficient cost-effective lighting technology, appropriate light loss factors, and current design practice that incorporate quality design elements. The new LPD values are generally lower by sometimes small to often significant amounts. The magnitude of the change is based primarily on the amount of LED technology incorporated into the model. "These proposed changes have been under consideration within the 90.1 Lighting Subcommittee for several years," Richman said. "Inclusion of LEDs were seriously considered for the 2013 version of the standard. However, at the time the changes needed to be processed (late 2012), the cost of LEDs was still relatively high and the variety and depth of available products was not deemed sufficient to incorporate into a mandatory code. We understand that LED technology continues to improve and become even more cost-effective such that by the time these new requirements are required for building projects, their effectiveness and viability on code compliance will be even easier." Also open for public comment is addendum *br*, which was developed in response to the publication of ANSI/ASHRAE Standard 169-2013, *Climatic Data for Building Design Standards*. Standard 169 includes more-recent weather data (resulting in changes in climate zone assignments for some locations, including approximately 10 percent of the 3,000 counties in the United States) and the creation of a new Climate Zone 0. The proposed addendum adds requirements for mechanical provisions. Under addendum *w*, which is expected to be published in 90.1-2016, Standard 169 is referenced for climatic data (though a new Reference Standard Reproduction Annex in Standard 90.1 includes extracts from Standard 169). Addendum *w* proposed criteria for Climate Zone 0 in Standard 90.1 for envelope provisions. Addendum *br* covers criteria for Climate Zone 0 of Section 6 (HVAC), and for the mechanical systems portions Appendix C and G. Generally, the new Climate Zone 0 is the hotter portion of the previous Climate Zone 1, which was the warmest climate zone. Cities in Climate Zone 0 include Mumbai (Bombay), Jakarta and Abu Dhabi. There are no cities in the United States in Climate Zone 0; Miami and the islands of Hawaii are in Climate Zone 1. The separation of Climate Zones 0 and 1 allows separate criteria for Standard 90.1 to be developed that are more specific to the hotter regions of Climate Zone 0. Addenda open for public comment from Sept. 4 until Oct. 4, 2015, are :

- *bt* updates efficiency values for low-voltage dry-type transformers to be consistent with federal law.
- *bx* requires a modeler to use the design set point for multi-zone thermostat systems..
- *bv* exempts baselines with purchased cooling and heat from the reset control requirements in Appendix G.
- *bw* provides a baseline for lighting controls consistent with addendum *bm*.
- *bz* to replaces Table 6.8.1-11 to account for the new rating conditions.
- *by* requires pipe insulation on the first 8 feet of branch piping.
- *cb* updates duct insulation requirements.
- *ca* modifies the fan power criteria by lowering of the motor power threshold for the fan speed control requirement.
- *ce* increases the minimum ERV requirements from zero to a reasonable minimum size for smaller units.
- *cc* replaces the definition of sidelighting effective aperture that was inadvertently deleted in 90.1-2013.
- *cf* to adds additional requirements to section 6.1.1.3.1 for direct replacement HVAC equipment.
- *ci* adjusts the equations for fenestration orientation in Section 5.5.4.5 by requiring a lower solar heat gain coefficient (SHGC) for west and east facing fenestration, and by allowing the use combinations of fenestration area, exterior shading and SHGC to demonstrate compliance.
- *ck* makes a change to control set point for the cooling tower to better scale with its climate, clarifies the operation of the condenser water pump as a constant volume pump, and modifies the exception for pump W/gpm for water side economizer.
- *cj* modifies a footnote in Appendix G for single zone variable air volume systems serving computer rooms.
- *du* requires water-side economizers for non-fan chilled water systems such as radiant cooling or passive chilled beam systems and for active chilled beam systems.

In addition, seven addenda are open for public comment from Sept. 4 until Oct. 19, 2015. They are:

- *ai* includes revisions to the fenestration criteria including U-factors and SHGC in certain climate zones.
- *br* was developed in response to the update of Standard 169-2013, *Climatic Data for Building Design Standards*.
- *bs* updates the EER values for water-source variable refrigerant flow products above 65,000 Btu/h. The proposal also establishes for the first time minimum IEER values for this product class.
- *cd* establishes for the first time a product class for dedicated outdoor air systems.
- *cg* modifies the exterior LPD for building exteriors.
- *ch* modifies the LPD for both space by space and building area methods by including LED technology into the lighting systems.
- *cl* relocates Table 7.8 for minimum efficiency requirements for residential water heaters and pool heaters to an informative appendix.

ASHRAE, founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its more than 50,000 members worldwide focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability. Through research, standards writing, publishing, certification and continuing education, ASHRAE shapes tomorrow's built environment today. For more information, visit [www.ashrae.org/news](http://www.ashrae.org/news).

## 2015-2016 ASHRAE RESEARCH PROMOTION Dayton, OH ASHRAE

**2014-2015 saw ASHRAE continue its leadership in developing standards and guidance for the design, operation and maintenance of healthy, energy efficient buildings.**

**The HVAC Industry gives us all our livelihood. ASHRAE's research and educational programs are what keeps our industry and professions on the leading edge and assures its continued existence. Confident that you will recognize the benefits of this investment, we are asking you to help fund future HVAC&R research and development by donating this year. Thanks so much for your help in advance!**

### Together we can all make a difference!

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Do you wish to be recognized in the Dayton ASHRAE Newsletter as a Contributor?  YES  NO

Please Mail this completed form with your check to:

ASHRAE Dayton Chapter  
ATTN: Research Promotion  
P.O. Box 3202  
Dayton, OH 45402-3202

**Dayton Chapter ASHRAE**[daytonashrae.org](http://daytonashrae.org)**Membership Application and Roster Information 2015-2016**

Please select:

 Local member (\$95)       Local student member (\$30)

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 Your Name
 

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I prefer Lunch Meetings \_\_\_\_\_ I prefer Dinner Meetings \_\_\_\_\_ I have no preference \_\_\_\_\_

**Chapter achievements are accomplished through active committee involvement. If you would like to promote your Society by serving as a committee chair or assist on one of the chapter committees, please indicate in which committee you are interested below. Please indicate your first preference by number 1 and so on.**

 Education    Membership    Research    Historian    Newsletter    Website

 CTT (Refrigeration; Technical, Energy & Government; Programs)    Golf Outing    Communication

**Dayton Chapter dues for the Society year beginning July 1, 2014 and ending June 30, 2015.**

**Full member: \$95 per year includes 6 lunch/dinner meetings and the holiday party.**

**Student member: \$30 per year includes 6 lunch/dinner meetings (excludes holiday party).**

**Please return this application and a check or money order in the amount of \$95 (member) or \$30 (student member) made payable to Dayton ASHRAE to:  
 DAYTON ASHRAE, PO Box 3202, Dayton, OH. 45401**