

# ASHRAE BLUEPRINT

April 2015

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## PRESIDENT'S MESSAGE

Mike Thompson

**Chapter Meeting: Wednesday April 1st @  
Westward Ho (The Country Club of Sioux Falls)  
Social 5-5:30 PM, Dinner 5:30 PM, Program 6-7:00 PM**

**RSVP at our Chapter homepage ([www.sdashrae.org](http://www.sdashrae.org)) no later than Noon on Monday March 30th. <http://sdashrae.org/meetinginfo.php>.**

Welcome to Spring! I hope everyone has had a chance to get out and enjoy the recent nice weather.

April will be our last regular meeting at The Club. Our speaker will be Mike Thompson (not me!), from Ingersoll Rand/Trane speaking on the changing dynamics of refrigerants. April is also student and scholarship night. Students from Southeast Technical Institute, Mitchell Technical Institute, and South Dakota State University will be in attendance. The students will be touring The Premier Center prior to the meeting. We will also be awarding our student scholarships as part of our meeting.

Our Research Promotion Campaign has officially started. Many of you should have already received your letter from Society. Follow-up contact from the Chapter will be occurring over the next couple of weeks. Please consider making your Research contributions as soon as possible as it helps the Chapter achieve PAOE point goals.

The following are upcoming events. Please check the Chapter website and this issue of the Blueprint for additional information.

- April 23<sup>rd</sup>. Climate Systems will be hosting the ASHRAE webcast titled ***New Tomorrows for Today's Buildings: Existing Building Commissioning***. The broadcast will be from 12:00 – 3:00 pm. 3 PDH credits will be available for those needing continuing education hours.
- April 25<sup>th</sup>. ASHRAE night at the Sioux Falls Storm game. We have a box suite reserved and space is limited to the first 30 to register.

As this is the last official Blueprint of the year, I would like to thank all of the Chapter Members, Board Members, and Committee Chairs for their support. Personally it has been a very rewarding year.

The BOG will meet at 4:00 prior to the general meeting.

See you at The Club.

# ASHRAE BLUEPRINT

## CTTC Mike Fellows

Guest Speaker: Mike Thompson, Global Leader of Refrigerant Strategy-Ingersoll Rand, Trane, Thermo King  
Mike Thompson is Global Leader of Refrigerant Strategy for the Ingersoll Rand businesses of Trane, and Thermo King. Mike has worked for Ingersoll Rand in the heating, ventilation and air conditioning (HVAC) industry for 25 years.

In this role, Mike is responsible for developing and communicating Ingersoll Rand's environmental message to the industry, and working with the sales distribution organization globally to educate customers on the importance of environmental issues when selecting HVAC and refrigeration systems. Mike also works with Trane's leadership and technology groups to help navigate the complexity of global refrigerant regulations now, and in the future. He's held numerous positions with Trane including Field Sales and Global Marketing manager for Trane's large tonnage chillers, and Director of Environmental Affairs for Trane.

Mike is member of the technical development committee for the GBI (Green Building initiative) Green Globes green building rating system. The Green Globes rating system is a newly developed green building rating system that provides an alternative rating system that stresses ease of use, and rewards green building planning during all phases of building development.

Mike is an active member in a wide range of HVAC industry organizations including ASHRAE, and the International District Energy Association, and also represents Ingersoll Rand in the global Montreal Protocol meetings.

Mike earned a bachelor's degree from Texas A&M University in mechanical engineering.

Presentation Title: Understanding the changing dynamics of refrigerants.

Refrigerant is the most essential thermodynamic component of cooling systems. It is important to understand the intricacies of refrigerants and making the right choice for the environment. Consulting engineers, architects, system operators and building owners are responsible for understanding refrigerant technology and how it relates to system efficiency, refrigerant availability, lifecycle cost and maintenance.

We will cover the following topics:

- Understanding global regulations and how the Montreal Protocol and the Kyoto Protocol will impact the future of the HVAC industry
- Understanding the phase out/phase down schedules of refrigerants, and the best way to plan for the future
- Understanding how the issue of global climate change will impact the HVAC industry.
- The economics of refrigerant choice - balancing capital against lifetime energy cost.
- Learn about the next generation of refrigerants that are in development that minimize both the ozone impact, and the global warming impact of HVAC refrigerants.

## The 2014-2015 South Dakota Chapter ASHRAE Line-up:

Sept 11	Noon	Chris Mathis, MC2 Mathis Consulting Company <i>"Why Buildings Matter and the Role of ASHRAE 90.1" ASHRAE Distinguished Lecturer</i>
Oct 8	Evening	Jeffrey D. Schmitt, Chief Planning and Zoning Official, City of Sioux Falls, South Dakota <i>"How the Planning Division Provides Direction for the Physical Development and Quality of Life Within the City – During a Construction Season and Out to 25 Years"</i>
Nov 5	Evening	Jordan Daniow, Seresco <i>"The Science of Natatorium Design"</i> <i>Past Presidents and Student Night</i>
Dec 3	Noon	Tim O'Keefe and Jack Atkins, Synergic Engineering Corporation <i>Dust Collection for Explosive Ducts</i>
Jan 7	Noon	Dan Chudecke, Mulcahy Co. <i>Applying ECM driven pumps to HVAC Systems</i>
Feb 21	Valentines Event	Olde Towne Dinner Theatre "Kitchen Witches"
Mar 4	Evening	Hailey Mick, Products and Applications Manager, IMI Flow Design <i>Differential Pressure Controlling Valves</i>
<b>April 1</b>	<b>Evening</b>	<b>Mike Thompson, Ingersoll-Rand/Trane</b> <b><i>"Understanding the Changing Dynamics of Refrigerants"</i></b> <b><i>Student Night</i></b>
April 23	12-3 PM	ASHRAE Sponsored Webinar: "New Tomorrows for Today's Buildings: Existing Building Commissioning" Hosted by Climate Systems <a href="https://ashrae.org/membership--conferences/webcasts">https://ashrae.org/membership--conferences/webcasts</a>
April 25	7:05 PM	<i>Fishing Sioux Falls Storm Game</i> Storm vs. Iowa Barnstormers
April/May		<i>Sporting Clays shoot at Hunter's Pointe</i>
May 29		<i>Golf – Brandon Golf Course</i>

## Government Affairs Kasey Abbott

### South Dakota's Energy Code

South Dakota's current energy code for commercial buildings requires compliance with the 2012 International Energy Conservation Code (IECC). ASHRAE 90.1-2010 provides an alternate compliance path. For construction commencing after July 1 the requirements switch to IECC 2015, with ASHRAE 90.1-2013 providing the alternate compliance path.

These requirements are based on state statutes 11-10-5 and 11-10-6 which requires compliance to the International Building Code (IBC). Chapter 13 of the IBC states, "Buildings shall be designed and constructed in accordance with the *International Energy Conservation Code*."

State statutes 11-10-5 and 11-10-6 read as follows:

SD Codified Law § 11-10-5. If the governing body of any local unit of government adopts any ordinance prescribing standards for new construction, the ordinance shall comply with the 2015 edition of the International Building Code as published by the International Code Council, Incorporated. The governing body may amend, modify, or delete any portion of the International Building Code before enacting such an ordinance. Additional deletions, modifications, and amendments to the municipal ordinance may be made by the governing body and are effective upon their adoption and filing with the municipal finance officer. Additional deletions, modifications, and amendments to the county ordinance may be made by the governing body, and are effective upon their adoption and filing with the county auditor. No ordinance may apply to mobile or manufactured homes as defined in chapter 32-7A which are constructed in compliance with the applicable prevailing standards of the United States Department of Housing and Urban Development at the time of construction. No ordinance may require that any fire sprinkler be installed in a single family dwelling. No ordinance may apply to any specialty resort or vacation home establishment as defined in chapter 34-18 that is constructed in compliance with the requirements of Group R-3 of the 2015 edition of the International Building Code.

SD Codified Law § 11-10-6. The design standard for any new construction commenced after July 1, 2015, within the boundaries of any local unit of government that has not adopted an ordinance prescribing standards for new construction pursuant to § 11-10-5 shall be based on the 2015 edition of the International Building Code as published by the International Code Council, Incorporated. Each local unit of government may adopt an ordinance allowing local administration and enforcement of the design standard. The provisions of this section do not apply to new construction for any one or two family dwelling, mobile or manufactured home, townhouse, or farmstead and any accessory structure or building thereto. For purposes of this section the term, farmstead, means a farm or ranch, including any structure or building located on the land. The provisions of this section do not apply to any mobile or manufactured home as defined in chapter 32-7A which is used for purposes other than residential that is constructed in compliance with the applicable prevailing standards of the United States Department of Housing and Urban Development at the time of construction if the structure complies with applicable accessibility standards for the occupancy intended. The provisions of this section do not apply to any specialty resort or vacation home establishment as defined in chapter 34-18 that is constructed in compliance with the requirements of Group R-3 of the 2015 edition of the International Building Code.

## From ASHRAE Headquarters

### ASHRAE SOCIETY NEWS:

#### **ASHRAE, UNEP Partner to Advance Environment-Friendly Refrigerants**

CHICAGO—ASHRAE and the United Nations Environment Programme's (UNEP) OzonAction have launched their joint work plan for 2015–2016. The fourth biennial work plan is based on a global cooperation agreement signed in 2007. The ASHRAE-UNEP cooperation agreement was developed to achieve several international goals, including the sustainable phase-out of ozone depleting substances (ODS) in refrigeration and air-conditioning applications; maximizing the climate benefits of using low-global warming potential alternatives including aspects of energy saving in buildings; as well as facilitating the transfer and adoption of sustainable and feasible technologies to developing countries. The new work plan includes two main goals and several action items. The first goal covers emissions reduction, long-term refrigerants and energy efficiency. The second goal aims to promote expertise and technological information exchange among governments and specialists working with with ASHRAE and UNEP.

April 2015 South Dakota Chapter ASHRAE Blueprint



# Join us at ASHRAE's 2015 Annual Conference

June 27–July 1 | Atlanta, Georgia | [www.ashrae.org/atlanta](http://www.ashrae.org/atlanta)

Special first  
time attendee  
registration  
fee available!

Join ASHRAE in its hometown of Atlanta! Take advantage of the opportunity to discuss and examine the latest topics in the building industry, such as high performing buildings and modeling, through the technical program; participate in technical tours; attend ASHRAE Learning Institute courses; sit for an ASHRAE certification exam; and earn professional development credits.

**Conference Technical Program**—includes the third annual Research Summit, which brings together researchers to present and discuss the latest research. Tracks focus on the design, construction and operation of high performance buildings, specifically advanced design guidance, modeling, operation and optimization, and indoor air quality. Laboratories, refrigeration, fundamentals, applications, systems and equipment round out the program.

**Networking**—share ideas and learn from fellow members from your hometown and around the world.

**ASHRAE Learning Institute**—choose from two full-day professional development seminars and seven half-day short courses to stay current on new HVAC&R technologies.

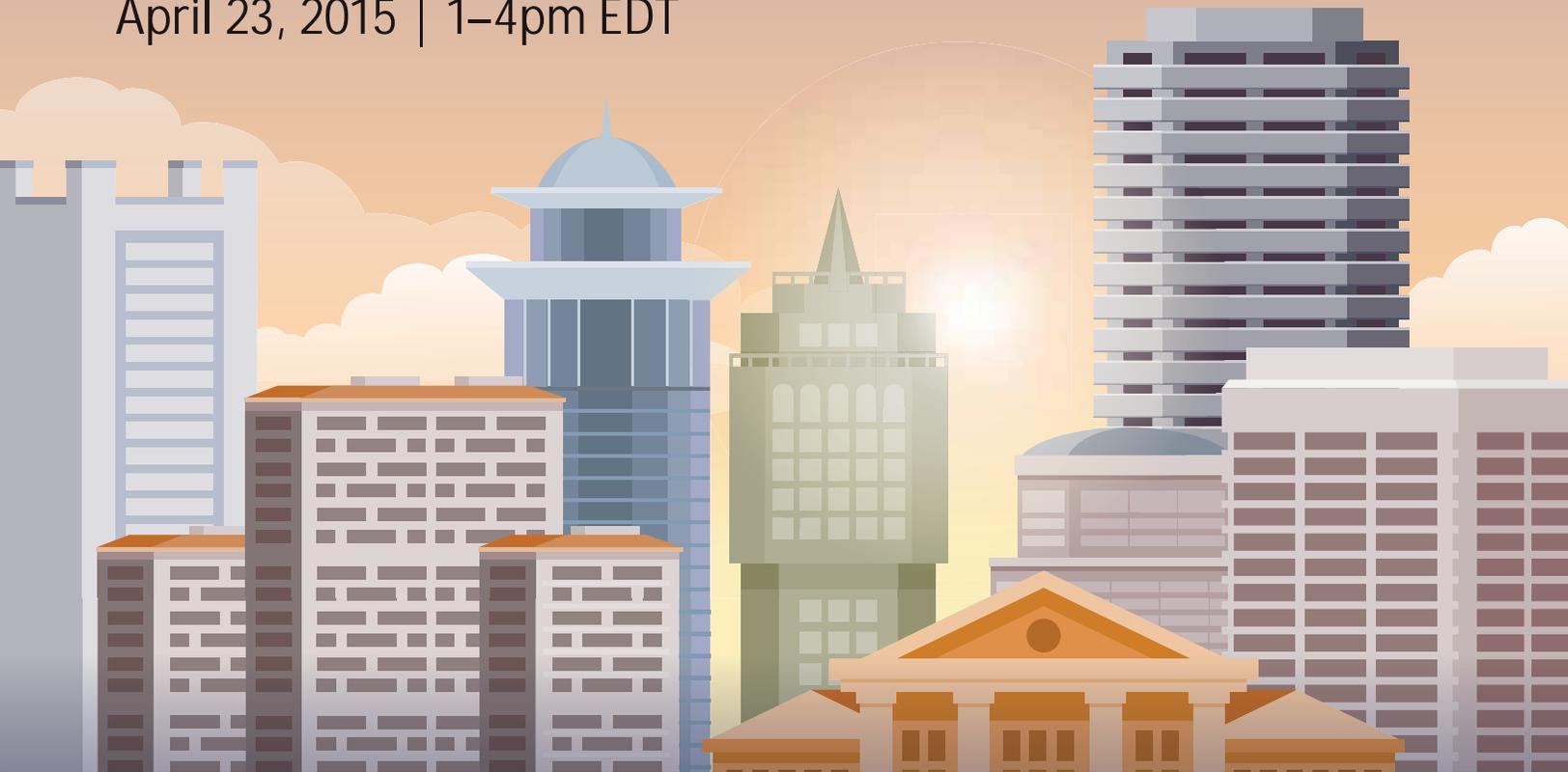
**ASHRAE Certification**—to gain a competitive edge, apply by June 9 to sit for an ASHRAE Certification exam.





# New Tomorrows for Today's Buildings: Existing Building Commissioning

April 23, 2015 | 1–4pm EDT



[www.ashrae.org/webcast](http://www.ashrae.org/webcast)



Thomas H. Phoenix,  
P.E., Fellow ASHRAE,  
BEAP, BEMP



Robert G. Baker,  
OPMP, Fellow  
ASHRAE

This webcast will feature industry experts who will define the benefits of existing building commissioning for the environment, occupants, operations staff, and overall ownership costs. Viewers will be able to recognize the varied scopes of commissioning, when to apply comprehensive versus focused commissioning, and best practices in existing building commissioning specifications & contracting.



James K. Vallort,  
Fellow ASHRAE



Ronald J. Wilkinson,  
P.E., CPMP

## Earn PDHs!

Attend this FREE webcast program and you may be awarded three Professional Development Hours (PDHs).

