

THE HOT AIR DIFFUSER

Chapter Newsletter

APRIL 2015

Volume 21 Issue 4



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APRIL CHAPTER MEETING

APRIL:

2015 Idaho ASHRAE Technical Conference

There will not be a meeting at Idaho Power this month, but instead the month of April includes our Annual Idaho ASHRAE Technical Conference. This year it will be held at Oxford Suites in Boise, ID (see address below). Topics of discussion include Refrigerants, Identifying and Correcting Bioaerosol Problems in Damp Buildings, Control Integration, 5 Secrets of Pressurization and Ventilation Control for Healthcare and Other Facilities, Indirect/Direct & Hybrid Evaporative Cooling, Building Automation and LEED, Combined Heat & Power for Commercial Facilities, Building a Net-Zero Lab in the United Arab Emirates, and New Approaches to Lab & Commercial Building Energy Use & Improving IEQ.

Speakers include: Tom Gorman (Trane), Bradley Harr (Summit Environmental), Lee Ridback (P2S Engr), Len Damiano (Ebtron), Moe Salem (Air2o), John Glaeser (Siemens), Nolan Hill (Highland West Energy), and our distinguished lecturer Gordon Sharp (Aircuity).

When:

Friday, April 10th, 2015
7:30am to 5:30pm MST

Please Register online at:

www.idahoashrae.com

Where:

Oxford Suites
1426 S Entertainment Ave.
Boise, ID 83709

MARCH:

Topic: Inverter Compressor Technology

Last month's speaker was Jay Eldridge. Jay is the Applied Air Systems Development Manager for Daikin Applied. As energy costs continue to rise, technology continues to evolve to meet the needs of society. We learned about the latest in positive displacement compressor technology: the true variable speed inverter compressor. Inverter compressors offer better full load efficiency, and superior part load efficiency while maintaining unparalleled discharge air temperature control and ultimately industry leading building comfort.



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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HISTORY LESSON

APRIL

Five Years Ago

The chapter president was Spencer Shepard. The meeting was held on April 6, 2010, at the Idaho Power Building. The program was to be announced.

Ten Years Ago

The chapter president was Tony Sutton. The meeting was held on April 8, 2005, at Louie's in Meridian. Mike Anderson, The Trane Company, gave a presentation on new requirements for phasing out certain refrigerants.

Fifteen Years Ago

The chapter president was Ben Strawn. The meeting was held on April 14, 2000, at the Double Tree Riverside. Pat and Bonnie House talked about the upcoming CRC in August, giving a preview of CRC events, parties, and volunteer positions.

Twenty-Five Years Ago

The chapter president was Dave Musgrove. The meeting was held on April 13, 1990, at the Kings Table Restaurant. Mike Wade, Sales Engineer, Larry Harrington Company, Salt Lake City, together with an unnamed engineer from Bell & Gossett Company, gave a pump seminar at the Intermountain Gas Company Hospitality House before the regular meeting. Mike Wade gave a presentation on condensate pumps and feedwater pumps at the meeting .

Thirty Years Ago

The chapter president was Lee Longson. The meeting was held on April 12, 1985, at the Royal Fork Restaurant. Joe McCorkle, Engineer, Bohn Heat Transfer Division, Gulf + Western Manufacturing Company, Danville, Illinois, gave a presentation on screw compressors and their applications .



NEWS FROM THE HOME OFFICE

Revision of ASHRAE IAQ Guideline Open for Public Comment

ATLANTA – Public input is being sought into a proposed revision of ASHRAE's residential indoor air quality guideline.

ASHRAE Guideline 24-2008, *Ventilation and Indoor Air Quality in Low-Rise Residential Buildings*, is the companion guideline to ANSI/ASHRAE Standard 62.2-2007, *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*. Guideline 24 provides information on achieving good IAQ that goes beyond the requirements contained in Standard 62.2 by providing explanatory and educational material not included in the code-intended standard.

A revision of the guideline is currently open for public comment until May 11, 2015. To learn more or to comment, visit www.ashrae.org/standardsactions.

This marks the first time since 2008 that the document is being revised, according to chair Paul Francisco. The revision includes a range of changes intended to provide clarification to previous guidance and update the Guideline for current understanding.

- The guideline, which was written by the committee responsible for maintaining Standard 62.2, includes information on envelope and system design, material selection, commissioning and installation, and operation and maintenance.

Advanced Energy Design Guide for Grocery Stores Available; Free Download

ATLANTA – Today's grocery stores often include a wide range of prepared food services and expanded fresh food products, which creates unique challenges in the design process due to the needed balance between refrigeration, food service and HVAC systems. When coupled with the need to create an inviting environment and positive shopping experience for customers, energy efficiency may get overlooked.

However, an energy efficient grocery store design adds value, reduces expenses and enhances the customer shopping experience. A new publication from leading industry associations provides an integrated approach to achieve such energy efficiency design.

The new published *Advanced Energy Design Guide for Grocery Stores* focuses on grocery stores ranging in size from 25,000 to 65,000 square feet with medium-

and low-temperature refrigerated cases and walk-ins. The information in this Guide can be combined with that in *Advanced Energy Design Guide for Medium to Big-Box Retail Buildings* and used for larger stores that consist of both grocery and general merchandise.

To download a free copy, please visit www.ashrae.org/freeaedg.

Refrigeration systems consume approximately half of the total energy consumed by a typical grocery store, and they interact with other building systems in a number of ways. One example is the heating load created by refrigerated cases without doors. Humidity control is another major issue. These interactions impact equipment performance and fresh food perishability.

"Traditionally, the refrigeration and food service are considered independently from the rest of the building systems and the HVAC&R is expected to meet the loads," Paul Torcellini, chair of the committee that wrote the Guide, said. "An integrated approach looks at the building holistically and addresses issues such as: HVAC humidity levels that are critical to the performance of the refrigeration system, refrigeration system waste heat that can be used for hot water or conditioning the outside air, and food service operation that generates lots of heat that must be removed. Adding doors to refrigerated cases reduces uncontrolled cooling, simplifies temperature control and reduces system load. Better management of exhaust hoods and better selection of equipment reduces the food service loads. Proper introduction of outside air that is semi-conditioned helps minimize cooking smoke and odors with minimal conditioning. These are just examples of how the pieces need to work together."

The Guide is the fifth in a series to provide recommendations for achieving 50% energy savings over the minimum code requirements of ANSI/ASHRAE/IESNA Standard 90.1-2004, *Energy Standard for Buildings Except Low-Rise Residential Buildings*. In the case of this Guide, all recommendations also meet or exceed Standard 90.1-2013.

The series was developed by a committee representing a diverse group of energy professionals drawn from ASHRAE, the American Institute of Architects (AIA), the Illuminating Engineering Society (IES), the U.S. Green Building Council (USGBC) and the Department of Energy (DOE). Support and funding was provided by DOE through the National Renewable Energy Laboratory (NREL).

The specific energy-saving recommendations are summarized in a single table for each climate zone and allow contractors, consulting engineers, architects, and designers to easily achieve advanced levels of energy savings without detailed energy modeling or analyses.

NEWS FROM THE HOME OFFICE CONTINUED...

In addition, this Guide discusses principles of integrated design and how they can be used to implement energy-efficient strategies. A chapter addressing design philosophies for grocery stores is also included. This chapter is devoted to interaction between refrigeration and other building systems.

An expanded section of tips and approaches is included in the "How to Implement Recommendations" chapter. These tips are cross-referenced with the recommendation tables. This chapter also includes additional "bonus" recommendations that identify opportunities to incorporate greater energy savings into the design of the building.

Case studies and technical examples throughout the Guide illustrate the recommendations and demonstrate the technologies in real-world applications.

This guide's electronic copy has navigational hyperlinks to allow easy movement throughout the guide. Links in the recommendation tables direct readers to the applicable "how to" tips, and links within the text direct to referenced tables and figures.

The 50% series includes books for large hospitals; medium to big box retail buildings; small to medium office buildings; and K-12 school buildings. The energy savings target of 50% is the next step toward achieving a net zero energy building, which is defined as a building that, on an annual basis, draws from outside resources equal or less energy than it provides using on-site renewable energy sources. ANSI/ASHRAE/IESNA Standard 90.1-2004 provides the fixed reference point and serves as a consistent baseline and scale for all of the 50% guides.

There also is a series providing 30% savings, which target small office buildings; small retail buildings; K-12 school buildings; small warehouses and self-storage buildings; highway lodging; and small hospitals and healthcare facilities.

For more information on the entire Advanced Energy Design Guide series, or to download a free copy, please visit www.ashrae.org/freeaedg. A print version of the Guide may be purchased for \$89 (\$62, ASHRAE members). To order, contact ASHRAE Customer Contact Center at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 678-539-2129, or visit www.ashrae.org/bookstore.

ASHRAE International Conference on Ships Takes Place May 22-24 in Athens

ATLANTA – The technical program for the International Conference on Energy and Environment in Ships, May 22-24, 2015, Athens, Greece, is being finalized. Registration is slated to open in April.

Organized by ASHRAE, the Hellenic Navy, the Technical Chamber of Greece and the ASHRAE Hellenic Chapter, the Conference is focused on the state of the art and challenges related to HVAC&R, indoor environmental quality, and energy safety and security on ships as well as onshore facilities.

The Conference presents a comprehensive overview of the areas relevant to military and commercial ships. Conference paper topics cover energy conservation and efficiency, ship HVAC systems, economic and financial considerations, IAQ in compact cabins and much more. Among the 30-plus papers to be presented are:

- Evaluation of Thermoelectric Generators for Waste Heat Recovery in Ships
- Minimizing Shipboard HVAC Energy Costs through Optimal Design
- Deep Water Wind Energy Production and Storage Coupled with Desalination Process
- Power Plant-Related Measures for Improving Energy Efficiency in Ships
- Energy Performance of a Liquid Desiccant and Evaporative Cooling-Assisted 100% Outdoor Air System in Commercial Ships
- Application of Photovoltaics on Ship Electrical Power Systems: Utopia or Reality?
- Life Cycle Assessment as a Prerequisite Tool in Maritime Industry
- Optimal Economic Operation of a Complex Electric Power System with Shaft Generators
- Capital Budgeting Techniques in Energy Systems Applied in Marine Science
- Production and Characterization of Zero Waste Biodiesel from Green Algae (*Cladophora glomerata*)
- Current and Future Trends on Marine Antifouling Coatings and the Study of Energy Efficiency Benefits for a Naval Fleet
- Royal Naval HVAC Systems
- In addition, the United Nations Environment Program presents a special session with a range of topics and presenters that addresses the management of ozone-depleting substances in the fishing and shipping sectors.

The Conference seeks to bring together the various professions in the shipping industry, according to Dimitris Charalambopoulos, conference chair.

NEWS FROM THE HOME OFFICE CONTINUED...

"This conference will be the first of its kind to draw up the strong links to the Hellenic Navy, the shipping community and the engineering community," he said. "Attendees can expect to see current practices, new approaches, methodologies and technologies, and identify areas of improvement."

More information can be found at www.ashrae.org/ships2015. Registration will open April 2015. Registration fee for the technical program is 35 euros. Technical program and all social events registration fee is 155 euros. Reduced registration is available for students. All sessions take place at the Yacht Club of Greece and at the Hellenic Naval Academy.

Free ASHRAE Webcast: New Tomorrows for Today's Buildings: Existing Building Commissioning

Participate in the upcoming **FREE** ASHRAE Webcast to hear industry experts who will define the benefits of existing building commissioning for the environment, occupants, operations staff, and overall ownership costs. Viewers will learn how to manage the commissioning process to minimize the impact on building functions and occupants, and how to integrate elements of existing building commissioning into the operation and maintenance staff's daily activities.

This webcast program is brought to you by the ASHRAE Chapter Technology Transfer Committee.

How to Participate

- Host a webcast site for your colleagues
- Register to view with others at a site near you
- Register to view the live webcast on your PC
- Register to view the On Demand webcast

Online registration begins March 23, 2015 at www.ashrae.org/webcast. **THERE IS NO FEE FOR REGISTRATION.**

Paper Deadline Approaching for ASHRAE's 2016 Winter Conference

ATLANTA — ASHRAE has announced a call for papers for its 2016 Winter Conference in Orlando, Fla., Jan. 23-27.

The call for papers includes a recognition for the best paper written by a graduate student.

Papers are being accepted on the following topics:

Design Build project delivery, which explores the challenges and benefits, highlights successful projects and addresses several topics, including contracts and alternative design and construction processes.

Modern Residential Systems for energy efficient solutions and the latest advances ranging from glazing to water heating to lighting for the residential market.

Cutting Edge Technologies, which explores efforts to achieve net zero energy buildings.

In addition, the 2016 ASHRAE Winter Conference also seeks papers addressing advances and practices across HVAC&R systems, equipment, fundamentals and applications, especially for the **International Design Track**.

ASHRAE offers two types of paper submissions:

- Conference Paper Abstracts due March 23, 2015. Upon acceptance, papers will be due July 6, 2015. These "final" papers undergo a single-blind review, are submitted as a PDF and have an eight single-spaced page maximum length.
- Full Technical Papers due April 20, 2015. Papers submitted for review must be both technically accurate and clearly written. These papers undergo a rigorous double-blind review and can be a maximum of 30 double-spaced pages.

Graduate Student Paper Recognition

Graduate students who submit a Conference Paper are eligible to participate in a recognition program titled "Best Graduate Student Paper." The recognition program is an ASHRAE effort to expose a deserving graduate student to the international community of researchers in the field by helping to fund their travel to the 12th CLIMA World Congress to be held May 22-25, 2016, in Aalborg, Denmark.

NEWS FROM THE HOME OFFICE CONTINUED...

ASHRAE will conduct a review of graduate student papers accepted for the January 2016 ASHRAE Winter Conference to make the selection. The graduate student author chosen will receive funding up to \$2500 to offset expenses of attending the CLIMA 2016 Congress. Conditions of the award are that the paper must be based on the student's thesis, that the paper be a Conference Paper (not a Technical Paper), that the student be the first author listed and that the submitter be a graduate student at the time of the abstract submission.

To submit a Conference paper abstract or a technical paper and for more information about the tracks, go to www.ashrae.org/orlando.

The 2016 Winter ASHRAE Conference takes place at the Hilton Orlando.

Held in conjunction with the 2016 Winter Conference is the ASHRAE co-sponsored International Air-Conditioning, Heating, Refrigerating Exposition, Jan. 25-27, 2016 Orlando Convention Center. The AHR Expo will attract some 60,000 professionals and the ASHRAE Conference will attract some 4,000 attendees and meeting participants.

Coming Soon - New Regional Website

Sean Miller is in the process of moving our website from the University of Nebraska server to a different host. He is also updating the look and feel as well as content. ***If you hold a regional position, please get Sean the information you would like on the Regional Website.***

Regional Leadership Positions Open!

Reminder, that this summer at the CRC we will need to elect Membership and GGAC RVC's. In addition we would like backups for ALL of the positions. You should be thinking about who you can nominate now. Cory Law will be following up in the near future.

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2015 ASHRAE Tech Conference

Friday, April 10, 2015

Register now online, www.idahoashrae.com

2015 CONFERENCE LOCATION

Oxford Suites • 1426 S Entertainment Ave •
Boise, ID 83709
7:30am - 5:30pm

REGISTRATION FEES

• member \$100 • non-member \$150 •
Registration includes breakfast, lunch, social
hour and door prizes.

BREAKFAST PLENARY SESSION

Len Damiano: Airflow Measurement for the Efficient Control of IAQ & DCV Relational Imperatives

FUNDAMENTALS POD

State of Refrigerants, "The next transition"
Speaker: Justin Wieman

-BREAK-

Integration: Controls Working Together:
Speaker: Lee Riback

IAQ POD

*Identifying and Correcting Bioaerosol Problems in Damp
Buildings:* Speaker: Bradley Harr

-BREAK-

*5 Secrets of Ventilation & Pressurization Control for
Healthcare and Other Facilities:* Speaker: Len Damiano

LUNCH WITH ASHRAE DISTINGUISHED LECTURER: GORDON SHARP

New Approaches to Slash Lab and Commercial Building Energy Use and Improve IEQ

ADVANCED SYSTEMS POD

Indirect/Direct and Hybrid Evaporative Cooling:
Speaker: Moe Salem

-BREAK-

*HP 101: Introduction to Combined Heat and Power for
Commercial Facilities:* Speaker: Nolan Hill

HIGH PERFORMANCE BUILDINGS POD

*Building Automation Systems' Role within LEED [GBCI Credit
- LEED AP BD+C]:* Speaker: John Glaeser

-BREAK-

*Building a Net Zero Lab in the United Arab Emirates: Mission
Impossible?* Speaker: Gordon Sharp

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ATTENTION: ASHRAE MEMBERS The Chapter is now accepting advertisements in the monthly newsletter. <u>Sponsorship Rates are as follows:</u>		
	Per Issue	Annual (9 issues)
Business Card	\$10.00	\$50.00
Quarter Page	\$25.00	\$200.00
Half Page	\$40.00	\$325.00
Full Page	\$60.00	\$450.00

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- For quarter, half, or full page job advertisements see above for pricing

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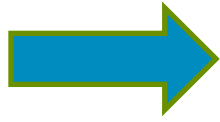
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Issues registering for monthly meetings?



Please contact Katie Leichter @
kleichter@uidaho.edu

Interested in becoming more involved with your local
ASHRAE Chapter? Positions will be opening up soon!

Please contact Russell Pratt
@ russell.pratt@cshqa.com for
more information.







Join Us at

ASHRAE's 2015 Annual Conference

June 27–July 1 | Atlanta, GA

www.ashrae.org/atlanta



Join us at ASHRAE's 2015 Annual Conference

June 27–July 1 | Atlanta, Georgia | www.ashrae.org/atlanta

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.

Special first
time attendee
registration
fee available!

