THE HOT AIR DIFFUSER

Chapter Newsletter

MARCH / APRIL 2013 Volume 19 Issue 6

ASHRAE Idaho Chapter

IDAHO ASHRAE CHAPTER BOARD

PRESIDENT'S MESSAGE

Hello fellow ASHRAE members,

I hope you all are enjoying this beautiful spring weather! I would like to thank Russ Pratt for organizing a successful March meeting where we toured the US Bank tower in Downtown Boise. Unico, the building owners, were very informative and hospitable during the tour. I know everyone who attended really enjoyed their impressive building. I would personally like to invite each of you to attend our annual ASHRAE Technical Conference April 19th which promises to be a great day of informative sessions. Please feel free to invite any customers or building owners who might be interested in these workshops. Information about this year's Technical Conference can be found at www.IdahoASHRAE.com. I hope to see you all there!

-Randy Reed, Idaho ASHRAE President

IDAHO ASHRAE TECHNICAL CONFERENCE

When: FRIDAY, APRIL 19, 2013
ALL DAY (7:30AM-4PM)

Where: Oxford Suites
1426 Entertainment Ave
Boise, Idaho 83702

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.

INSIDE THIS ISSUE:

2013 Idaho ASHRAE Technical Conference
Coming Up on April 19th

We have an exciting Agenda for the 2013 Idaho ASHRAE Technical Conference! This year the Idaho ASHRAE Technical Conference will feature two ASHRAE Distinguished Lectures, Stanley Mumma, Ph.D., P.E. and Julian R. de Bullet, and five local design professionals.

Dr. Mumma has been an educator since 1971 and is a registered Professional Engineer in three states. Dr. Mumma is the author of numerous technical papers and articles on Dedicated Outdoor Air Systems and Radiant Panels that have published in Engineered Systems, Applied Thermal Engineering, Consulting and Specifying Engineer, the ASHRAE Journal, and ASHRAE IAQ Applications,. Dr. Mumma has his own website devoted to DOAS and radiant technology (http://doas-radiant.psu.edu). Dr. Mumma is a Professor Emeritus for the Department of Architectural Engineering in the College of Engineering at Pennsylvania State University.

Julian R. de Bullet is an ASHRAE Distinguished Lecturer with over 300 Seminars delivered around the world with topics including “Responsible Refrigerant Use”, “Sustainable HVAC Systems”, “Variable Primary Flow System designs” and “90.1 and LEED”. He is a member of ASHRAE TC 8.2 Centrifugal Chillers and has co-authored numerous ASHRAE Handbook chapters. He chaired the Professional Development Committee, (Responsible for the ASHRAE Educational programs), was a voting member of the Publications and Education Council and the Society Advocacy Committee. He has co-authored ASHRAE Position Documents on Energy Efficiency, Natural Refrigerants and Ozone Depletion. He is a Life Member and holds the Distinguished and Exceptional Service Award. Mr. de Bullet has over 40 years experience in the HVAC industry. He is Vice President, Business Development with FAFCO Thermal Storage Systems LLC. His career has concentrated on the applications of Chilled Water and All-Air systems as a manager of applied equipment sales and of a service/performance contracting operation.

The conference will consist of two plenary talks and six breakout sessions. Breakout sessions will cover topics on existing building renewal from a mechanical perspective, energy model calibration for existing building renewal, open source control systems, chiller design, energy recover ventilators, and dedicated outdoor air systems. Vendor booths will also be on hand to talk about the latest products and services. Join us for a great day of education, information and networking.

This year’s Technical Conference will be held on **April 19th** from **7:30 AM to 4:00 PM** at the **Oxford Suites**, 1426 Entertainment Ave. Boise, ID. Registration and more information will be posted soon at www.idahoashrae.com.

Technical Conference Sponsors:

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HISTORY LESSON

MARCH

Five Years Ago
The chapter president was Xenon Long. Dan Tuskey of Photronics gave a tour of the Photronics Class I clean room facility in Boise.

Ten Years Ago
The chapter president was Preston Nance. The meeting was held on Friday, March 14, 2003, at the Double Tree Riverside. Erik Boe, Lars Dorr, Pam Havey, and Mark Wilson, senior mechanical engineering students at Boise State University, gave a presentation on the design of a 30-watt direct methanol fuel cell system for educational research as part of their senior project.

Twenty Years Ago
The chapter president was Richard Kartchner. The meeting was held on Friday, March 12, 1993, at Edwards Restaurant. The scheduled program was unexpectedly cancelled and a replacement program had not been selected at the time of newsletter publishing.

Twenty Five Years Ago
The chapter president was Phil Terrell. The meeting was held on March 10, 1988, at the Kings Table Restaurant. Gary Powers, Honeywell Inc., gave a presentation on fire management and smoke control systems. Larry Jenkins, ASHRAE Region IX Chairman, was present at the meeting.

APRIL

Five Years Ago
The chapter president was Xenon Long. The meeting was held on Friday, April 18, 2008 at the Idaho Power Building. Andy Williams, Engineering Manager for Midgley-Huber Technical Services, gave a power point presentation on variable frequency drives. The presentation included: Why Use a VFD; Drive Hardware and Applications; How an AC Motor and VFD Interact; Pulse Width Modulation; VFD Capabilities and Protection; and Applications and Economic Justification.

Ten Years Ago
The chapter president was Preston Nance. The meeting was held on Friday, April 11, 2003, at the Double Tree Riverside. Harry Beaulieu gave a presentation on Indoor Air Quality.

Twenty Years Ago
The chapter president was Richard Kartchner. The meeting was held on Friday, April 9, 1993, at Edwards Restaurant. Darwin Roy, Climatech, gave a presentation on DDC Control Systems.

Twenty Five Years Ago
The chapter president was Phil Terrell. The meeting was held on April 8, 1988, at the Kings Table Restaurant. Marv Benner, Honeywell, gave a presentation on Indoor Air Quality including pollutants, filters, and gas removal (Radon).

A SHORT BIOGRAPHY

David "Dave" Asmus was born in Osceola, Iowa. While growing up, he moved from Iowa to California, back to Iowa, then to Los Alamos, New Mexico. He ended up finishing high school in Albuquerque, New Mexico, then attended college at the University of New Mexico.

Dave worked for Bridgers & Paxton from 1965 to 1968. In 1968, Dave moved to Boise and worked for Sudweeks & White, which became Engineering Incorporated shortly after he started work. In 1970, Dave moved to Pocatello, still working for Engineering Incorporated. In 1976, he moved back to Boise to work for Morrison Knudsen. He stayed with MK for eight months designing mechanical systems for ancillary buildings for coal mines. In 1977, Dave started working for CH2MHill. During this time, he was moonlighting, doing mechanical design for Les Stith. In 1980, Les hired Dave Hamman to start the mechanical side of his business and offered Dave Asmus a full time position with Engineering Consultants. The Parkinson brothers started Micron, and Dave was part of the design team for Micron's first building, Fab 1, then their second building, Fab 2.

Micron cancelled the design of their third building, Fab 3, so in 1988, Dave started working for Dave Musgrove in an

office of 4 people. September of 2013 will mark his 25th year with Musgrove Engineering. Starting about five years ago, Dave was responsible for checking all drawings before they left the office, updating all specifications, and putting together specifications for each project. He started working part time, 20 hours a week, in February of 2013. He works from 9:00 AM to 3:00 PM four days a week, taking either Monday or Friday off.

Dave started the West Boise Little League in the 1980's. He put the teams together and led the tryouts. In 1993, he bought a townhouse in southeast Boise. He has three children, one boy and two girls, and seven grandchildren. His son lives in Coeur d'Alene, and his two daughters live in Boise.

In 1980, Dave attended the first start-up meeting for the Idaho ASHRAE Chapter. He was the chapter president for the 1985 – 1986 year, 2 years early due to other chapter officers moving away. Coincidently, that year was the first time the ASHRAE CRC was held in Boise. Dave was also on the Idaho Chapter History Committee with Richard Kartchner for ten years.

Dave has no plans for full retirement, and plans to continue working part time for Musgrove Engineering. He enjoys reading in his spare time, which he didn't have time to do before.

NEWS FROM THE HOME OFFICE

ASHRAE and UNEP Strengthen Global Cooperation; Launch 2013-2014 Biennial Work Plan

ASHRAE and the United Nations Environment Programme (UNEP) have launched their third biennial Work Plan for 2013-2014, based on a global cooperation agreement signed in 2007, at ASHRAE's 2013 Winter Conference held in Dallas, Texas, Jan. 26-30, 2013.

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 zero ODS alternatives including aspects of energy saving in buildings; as well as facilitating the transfer and adoption of suitable technologies in developing countries.

The new work plan covers the 2013-2014 timeframe with an objective of increasing cooperation between ASHRAE and UNEP by transferring relevant technologies amongst different regions and continents. The plan is prepared based on success achieved and lessons learned from the implementation of two previous work plans.

The new work plan includes two main goals and several relevant actions. The first goal, which addresses emissions reduction, long-term refrigerants and energy efficiency in buildings, includes five different actions. These actions address promoting research of long-term refrigerants, building knowledge of specialists about refrigerants through education and certification, developing a specialized guide for refrigeration installations and coordinating efforts in the area of energy efficiency in buildings.

The second goal aims at promoting expertise and technological information exchange to governments and specialists dealing with ASHRAE and UNEP, developing a regional roaster of experts, establishing an international advisory team to assist developing countries in instituting/updating relevant standards and codes, as well as developing joint online tools and a forum for partners and stakeholders, allowing for better communication and dissemination of related information.

The ASHRAE-UNEP coordination team will continue its work to oversee sound implementation of the work plan and facilitate the involvement of ASHRAE chapters around the world as well as UNEP regional teams.

Return to Dallas Sees High Attendance, New Technology at ASHRAE Conference

ATLANTA –From technology in the palm of your hand to technology from around the world, the ASHRAE Winter Conference brought attendees all the latest updates in the building industry.

Some 2,840 people attended the Conference, held Jan. 26-Jan. 30, in Dallas, Texas. Attendees came from around the globe, including India, Latvia, Romania, Thailand and even Uganda, to name just a few.
Also taking place in conjunction with the Conference was the ASHRAE co-sponsored Air-Conditioning, Heating, and Refrigerating Exposition, which set new all-time records for a Southwest Show. The Expo attracted 51,337 attendees, including nearly 34,000 visitors. The Show also saw the most exhibitors, 1,951, and largest square footage, 397,000 sq. ft., for any Southwest Show.

New to the Conference was the ASHRAE Event App. Some 2,000 Conference attendees accessed education courses and social events with the touch of a button; had maps and floor plans in hand to find their way around; added sessions to their personal schedules and created one-touch custom agendas of events from their smart phones and tablets.

The Winter Conference technical program featured nearly 200 presentations, with the top attended session in the systems and equipment, facility management, energy conservation and fundamentals and applications tracks. The top-attended sessions were Introduction to the ASHRAE/REHVA Chilled Beam Design Guide; Desiccant Enhanced Air Conditioning; The FM Perspective: Reducing Energy Consumption and the True Cost of Maintenance; Innovative Energy Efficiency Strategies for Commercial Buildings; and Decoupling the Latent Load Through Psychrometrics.

Other Conference highlights included the Technical Plenary, which drew 330 attendees, with its focus on ethics and engineering.

These, and additional sessions, from the Technical Program are part of ASHRAE's Virtual Conference, which provides access to more than 250 presentations. Register or access presentations at www.ashrae.org/dallasvirtual.

The Conference offers an opportunity for ASHRAE to strengthen its relationships with other associations from around the world. ASHRAE took advantage of the diverse group of attendees to sign Memorandums of Understanding (MOU) with the Council of American Mechanical and Electrical Engineers (CAMEE); the National Association of State Energy Officials (NASEO);

and the Society of Heating, Air-Conditioning and Sanitary Engineers of Japan (SHASE). The Society also signed a Mutual Recognition Agreement (MRA) with the Chartered Institution of Building Services Engineers (CIBSE). The MOUs and MRA highlight the shared goals of ASHRAE and the organizations and promote mutually beneficial partnerships between the signing parties.

ASHRAE also furthered its existing relationship with the United Nations Environment Programme (UNEP), launching its third biennial Work Plan for 2013-2014, based on a global cooperation agreement signed in 2007.

Also offered were five Professional Development Seminars and 14 short courses from the ASHRAE Learning Institute (ALI). The most popular courses were Energy Management in New & Existing Buildings; Humidity Control Applications, Control Levels and Mold Avoidance; and Laboratory Design: The Basics and Beyond. Additionally, ALI offered a special session of its in-depth HVAC Design: Level I—Essentials training. The session was held Jan. 30-Feb. 1 and saw 39 attendees.

Top selling publications included "Performance Measurement Protocols: Best Practices Guide;" "Handbook of Smoke Control Engineering;" "Thermal Guidelines for Data Processing Environments, 3rd edition;" Standard 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings; "A Practical Guide to Seismic Restraint, 2nd edition;" "ASHRAE Papers CD: 2013 ASHRAE Winter Conference;" and Standard 90.1-2010 User's Manual.

Protocols for Performance Measurement Published

ATLANTA – Tools and techniques for measuring, managing and improving the performance of a facility as demonstrated by its energy and water use and indoor environmental quality, are contained in a new guide.

"This is the book that facility managers, building operators, technicians, consultants, commissioning authorities, architects and design engineers need to ensure that their buildings are green, energy efficient, highly productive, healthy and attractive to others," Jim Bochat, chair of the project committee that wrote the book, said. "This Guide gives building owners and their consultants the practical performance measurement guidance to meet market demands for keeping operating costs down without sacrificing the health, comfort and productivity of their highest cost component—the building's occupants."

"Performance Measurement Procedures for Commercial Buildings: Best Practices Guide" serves as the how-to guide for continuously evaluating and improving the performance of commercial buildings throughout their service life.

Published by ASHRAE and funded in part through a grant from the National Institute of Standards and Technology, the book provides specific best practices in the areas of energy use, water use and four elements of indoor environmental quality (IEQ): thermal comfort, indoor air quality (IAQ), lighting/day lighting and acoustics. Using this guidance, owners can be proactive on an ongoing basis to reduce costs through measurement and verification of their buildings' environments.

The book is a companion to the 2010 publication, "Performance Measurement Protocols for Commercial Buildings," which identifies what to measure, how to measure it and how often it is to be measured for inclusion in buildings' operation and maintenance plan.

The Guide presents step-by-step procedures at three process levels of performance, which are intended to match the level of cost and intensity of effort for a range of types and sizes of facilities. An accompanying CD contains a report template and standardized forms, worksheets and checklists for use by the building in implementing the procedures.

For example, the three process levels of performance for energy are:

- The Basic Evaluation level reduces energy consumption and cost through the elimination of wasted energy and the improvement of system and equipment operation. Measurement focuses on energy bill analysis and a facility walk-through inspection (ASHRAE Level I energy audit) to identify obvious energy waste and low-cost or no-cost improvements; no additional measurement is conducted. This level does not require an outside specialist or professional.
- In Diagnostic Measurement, energy performance measurements include sub-metering of major end uses and specific components, along with the equivalent of an ASHRAE Level II energy audit. The audit task requires the use of physical measurement and instruments, augmented by calculations, by a person experienced in energy use and cost analysis measures. Energy efficiency measures having a simple payback of three to five years are identified.
- At the Advanced Analysis level, evaluation focuses in-depth on specific systems and equipment so as to determine the location and cause of energy use problems. The approach is to compare detailed interval data to self-reference benchmarks that indicate how the systems and equipment should be operating, in the specific application or operational context. The first step is to engage a consultant to identify which systems are to be monitored and how.

Other examples of performance measurement protocols are:

Water Assessment
An Advanced Analysis water assessment involves detailed water use readings and advanced usage analysis, normally employing a specialist or consultant. Submeters are used for cooling towers and boiler make-up water, process water, cleaning water and recycled and/or harvested rainwater. Recommendations for water use improvement are developed.

Thermal Comfort
Basic Evaluation activities for thermal comfort provide a non-specialist with tools for determining whether perceived thermal comfort is adequate or whether there are deficiencies that can be corrected without the need for physical measurements. Evaluation activities include occupant surveys and field observations gathered by building walk-throughs.

Indoor Air Quality
For Diagnostic Measurement, building data are gathered to identify the location and cause of problems, as they have been identified by occupant surveys or complaints; measurements are not conducted at this level. If IAQ problems are confirmed but cannot be remedied by simple measures, users are referred to the Advanced Analysis phase where an expert is retained to investigate. Outside air rates should be measured for each ventilation system. Room humidity, exhaust airflow direction and filter pressure drop are tested.

Lighting
At the Advanced Analysis level recommended activities require the services of a professional with lighting/day lighting expertise. Performance measurement consists of surveying the building occupants regarding satisfaction with lighting/day lighting and using the walk-through checklist in Appendix A. Issues related to lighting and control, day lighting methods and controls, visual activity, methods of measurement and energy use are addressed.

Acoustics
Diagnostic Measurements are taken to diagnose the extent of dissatisfaction identified in the Basic Evaluation. Building operators without personnel skilled in sound level measurements should proceed to the Advanced Analysis level and seek outside professional services. Dissatisfaction related to background and intruding noise typically requires A-weighed, equivalent sound pressure level measurements.

The cost of “Performance Measurement Procedures for Commercial Buildings: Best Practices Guide” is $99 ($84 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.

Lighting Efficiency Improvements Proposed for Standard 90.1

ATLANTA – Proposed changes to the ASHRAE/IES energy standard will require automatic lighting controls in more space types and shorten the times before lighting is automatically reduced or shut off.

Addendum by to ANSI/ASHRAE/IES Standard 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings, was developed in response to requests from the design community, which asked for a tabular structure for specifying the controls requirements. By putting these requirements into an easier-to-use tabular format, the provisions will be clearer, more likely to be complied with and easier to enforce, according to Eric Richman, chair of the standard’s lighting subcommittee.

The addendum is open for public review from Feb. 15-April 1, 2013. For more information, visit www.ashrae.org/publicreviews.

“The proposed addendum is the product of both the interest in increasing lighting controls use where practical and simplifying the standard,” Richman said.

The 2010 version of the standard includes basic shutoff and occupancy sensor type controls in selected spaces. The addendum will increase the use of occupancy based control to all spaces in a building where practical. At the same time, additional partial on and partial off controls are added to further reduce full on lighting when spaces are typically unoccupied. For example, many spaces that are not always practical applications for full automatic off (such as corridors) would require at least partial automatic off when the space is unoccupied.

The new tabular format allows users to see all requirements for most interior space types and categories in one simple look-up table.

“This new representation and update of control requirements will reduce the time that lighting is on at full levels in many spaces and make the requirements easier to understand and therefore comply with and inspect to,” he said. “Both of these conditions will improve energy efficiency of the building.”

Also open for public review is addendum ay from Feb. 15-March 17, 2013. The proposed addendum corrects a couple of small editorial issues and raises the threshold for when daylight responsive controls are required so that they are cost effective in all climate zones.

Papers Sought for First International Conference on Energy, Indoor Environment in Hot Climates

ATLANTA – Papers are being sought for a conference focused on energy and indoor air quality in hot and humid climates. Organized by ASHRAE, the Qatar Oryx Chapter and the Qatar Environment and Energy Research Institute, the First International Conference on Energy and Indoor Environment for Hot Climates takes place Feb. 24-26, 2014, in Doha, Qatar. It is endorsed by the United Nations Environmental Programme (UNEP) and the Chartered Institution of Building Services Engineers (CIBSE).

Abstracts (400 words in length) are due April 30, 2013. If accepted, papers are due May 15, 2013. Authors of accepted papers are responsible for travel and registration. Hotel accommodations are free for authors presenting papers. Submittal information can be found at www.ashrae.org/HotClimates.

The Conference provides a forum for discussion of the latest research and development in the field of indoor environmental quality in high ambient temperature climates. Rising energy demand, costs and the associated environmental problems are causing increased emphasis on the design of energy efficient HVAC&R systems, according to Walid Chakroun, conference chair.

“This Conference sets the path for better understanding the integration of energy efficiency and indoor air quality in high ambient temperature regions,” he said. “The impact of low-energy design on occupant health in different building sectors, for both developed and developing economies, is the focus.”

Topics include but are not limited to:

- Indoor Air Quality Systems
- Lessons Learned from IAQ Systems in Developing Countries
- Air-Conditioning and Refrigerating Systems
- Sustainability in Buildings
- Energy and Sustainable Development
- Healthy Indoor Environment Protocols
- Renewable Energy Technologies
- Indoor Environmental Pollution Sources
- Air Cleaner Performance
- Advances in Filter Materials
- Low Emitting Materials for Better IAQ
- Standards, Codes and Regulations

In addition, panel discussions are included with experts and decision makers where recommendations and ideas for research can be generated for better design and preserving healthy environments. Also, several keynote speeches will focus on different aspects of indoor environmental quality and energy efficiency.

New BACnet Standard Published with Significant Improvements to Alarm Handling

ATLANTA – Changes to the newly published BACnet standard from ASHRAE will encourage smart lighting controls and other building automation controls systems.

ANSI/ASHRAE Standard 135-2012, BACnet – A Data Communication Protocol for Building Automation and Control Networks, allows building equipment and systems manufactured by different companies to work together. It is the only open, consensus-developed standard in the building controls industry.

The new standard is being published ahead of schedule due to the wide-reaching changes in alarming functionality made by addendum af to Standard 135-2010. This edition of the standard also includes recently adopted changes for the lighting industry.

Addendum af provides significant improvements to the alarm handling in BACnet including: improved fault handling, temporary alarm recipient subscriptions, improvements in scalability of alarm distribution and simplifications in alarm distribution to support less complex products, according to Carl Neilson, chair of the Standard 135 committee.

“For building owners/integrators these changes allow improvements in interoperability between lighting control products and other building automation systems,” he said. “Hopefully, this facilitates more deployment and integration of smart lighting controls, such as lights that turn on/off when occupants enter/leave rooms; lights that come on based on the same schedules as climate control; and opportunities to reduce lighting based on energy usage during demand/response events. With the changes in alarming, we also hope to see alarming support in ‘smaller’ devices, which should provide more alarm and fault detection with a lower engineering cost.”

Addendum af contains 32 parts. Changes include:

- Removal of Annex C and Annex D
- Clarification of optionality of properties related to intrinsic event reporting; optionality of properties related to change of value reporting; priority_array and relinquish_default; segmentation related properties; virtual terminal related properties; time synchronization interval properties, backup and restore properties; active_COV_subscriptions property; slave proxy properties; restart related properties; log_deviceobjectproperty; clock aligning properties; and occupancy counting properties are allowed to be present
- Ensures that pulse_rate and limit monitoring_interval are always together and that that event notifications are not ignored due to character set issues

- Adds the ability to configure event message text; event detection enable/disable property; dynamically suppress event detection; specify a different time delay for to-normal transitions; inhibit the evaluation of fault conditions; for some objects types to send only fault notifications; a notification forwarder object type; an alert enrollment object type
- Separates the detection of fault conditions from intrinsic reporting
- Makes the event reporting property descriptions consistent
- Identifies the property in each object that is monitored by intrinsic reporting
- Changes the description of the reliability property
- Improves fault detection in event enrollment objects and the specification of event reporting
- Reduces the requirements on notification-servers

This version of the standard also includes the addition of support for lighting control through the new lighting output object, the channel object and the WriteGroup service.

The cost of ANSI/ASHRAE Standard 135-2012, BACnet—A Data Communication Protocol for Building Automation and Control Networks, is $170 ($140, 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.

Registration for Annual Free ASHRAE Webcast Now Open

ATLANTA—Registration is now open for the 2013 free ASHRAE Webcast, "Assessing Building Energy Performance—From Principles to Practice." Register at www.ashrae.org/ABEPwebcast to benefit from this free webcast.

The webcast will address the importance of building energy performance and its far-reaching implications in both new and existing buildings, as well as the opportunities that assessing building energy performance presents.

The Webcast presenters are:
•Thomas Watson, P.E., Fellow Life Member, ASHRAE president, chief engineer, Daikin McQuay, Staunton, Va.
•Drury Crawley, Ph.D., P.E., Fellow ASHRAE, ASHRAE-Certified Building Energy Modeling Professional, director of building performance, Bentley Systems, Washington, D.C.
•Jim Kelsey, ASHRAE-Certified Building Energy Assessment Professional, principal, kW Engineering, Oakland, Calif.
•Christopher Mathis, president, MC Squared, Asheville, N.C.
The webcast program has been approved for three Learning Units (LUs) by the American Institute of Architects (AIA), as well as three Continuing Education (CE) Hours by the Green Building Certification Institute.
The live program will be archived online until May 3, 2013, for viewers who are unable to participate on April 18. Registration is required to view the archived program.
DVDs of the webcast program are currently available for pre-order at the ASHRAE Bookstore. For more information, call 678-539-1200 or email ashrae-webcast@ashrae.org.

26 Proposed Addenda to ASHRAE/IES Energy Standard Open for Public Comment

ATLANTA – With the 2013 version of the ASHRAE/IES energy standard scheduled for publication later this year, many changes are being proposed to strengthen its requirements.

As such, 26 proposed addenda to ANSI/ASHRAE/IES Standard 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings, are open for public comment.

"As we move toward publication of the 2013 standard, the 90.1 committee is considering many changes to reduce building energy use and cost," Steve Skalko, chair, said. "The proposed addenda reflect a variety of changes to the standard, many of which are the result of earlier public review comments. These changes contribute to our goal of making the standard 40 to 50 percent more stringent than the 2004 standard."

The energy cost goals for the 2013 standard are:
- Regulated Loads only – 50 percent target includes only regulated energy end use loads as included in the Standard 90.1-2004 baseline.
- Whole building – 40 percent target, which includes all energy end uses

Twenty-two proposed addenda are open for public comment from March 22-April 21, 2013. For more information, visit www.ashrae.org/publicreviews. They are:
- aa mandates direct digital control (DDC) for certain applications in both new buildings and retrofits where cost effective and defines the minimum capability of mandated DDC systems.
- bo adds requirements for use of gas condensing service water heaters in newly constructed buildings.

- bs reduces the occupancy threshold for demand controlled ventilation from greater than 40 people per 1000 square feet, with exemptions for certain occupancies, to equal to or greater than 25 people per 1000 square feet, expanding the occupancies where demand controlled ventilation is required.
- co corrects the calculation of hotel and motel type guestroom spaces based on an error in applying the room geometry of the space type, which then changes the associated whole building lighting power densities (LPDs) for hotel and motel.
- cr modifies the designation for the types of facilities eligible for the higher LPDs based on use of space for those needing additional lighting for age and other related eye issues.
- ct corrects an error for the addition of HVAC systems to heated only storage areas in Appendix G. The single zone systems would be assigned to a single thermal zone vs. being grouped with the multiple zone systems.
- cw uses the new SS-EN ISO 25745-1:2012 to add a movement energy efficiency requirement for elevators.
- cy revises the requirements for the use of exhaust air energy recovery as defined in 6.5.6.1. In 2012, addendum bt expanded down the range for the use of exhaust air energy recovery to 10 percent ventilation rates. In addition, energy recovery was removed for climate zones 3B, 3C, 4B, 4C, and 5B for >70 percent outside air. These changes were based on the latest performance and economics analysis,
- cz ensures revisions to a table and new footnotes are consistent with Section 303 of the Energy Independence and Security Act of 2007 (EISA 2007), which increased the federal minimum efficiency standards for residential-sized boilers. Section 303 increased the minimum annual fuel utilization efficiency for gas and oil-fired boilers, and established design requirements for certain types of new boilers manufactured or imported for use in the United States. All of the efficiency and design requirements took effect for equipment built on or after Sept. 1, 2012.
- da provides two compliance paths for high speed doors within the Mandatory Air Leakage requirements. It also clarifies which test glazed overhead doors are to follow.
- db addresses an error in addendum bb contained within Table 5.5-3, under the category “Floors, Steel Joist” and in the cells assigned to the “residential” occupancy.
- dc clarifies that rooms within suites should be handled individually when one becomes empty.
- dd clarifies the exception to re-roofing and roof re-covering.
- de revises the design point for waterside economizers in computer room applications.
- df replaces current minimum performance requirements for packaged Computer Room Air Conditioners shown in Table 6.8.1k with a new table based on Standard 127-2012. The standard had referenced the 2007 version of Standard 127, Method of Testing for Rating Computer and Data Processing Room Unitary Air Conditioners. AHRI and member companies have agreed to test their equipment under the new standard. The test configurations were increased and the performance values updated accordingly.
- dg changes the reference to the 2012 ANSI/CRRC Standard from the 2010 version.
- di prohibits use of fossil fuels and electricity for humidification above 30 percent RH and dehumidification to 60 percent RH, except in special circumstances. Where control is required within the 30-60 percent region, a deadband is required. Where even tighter control is mandated, the system is exempted.
- dj offers an increase in electrical/mechanical rooms in cases where the current proposed allowance of 0.42 W/sqft is not considered sufficient to provide needed vertical and horizontal illuminance given the varied configuration of electrical/mechanical rooms. The additional allowance would have to have separate control and could not be traded off to other spaces in the building.
- dk eliminates the exemption for wattage used in spaces where lighting is specifically designed for those with age related or other medical condition related eye issues where special lighting or light levels might be needed.
- dl corrects the calculation of hotel and motel type guestroom spaces based on an error in applying the room geometry of the space type and combines them into a single value since the calculated value are determined to be the same for code purposes.
- dn revises the requirements for the use of hot gas bypass as defined in section 6.5.9 and table 6.5.9.
- do is updating referenced standards in various provisions covering mechanical systems in 90.1-2010.

In addition, three addenda under review that received public comments in earlier reviews have been revised and are open for public comment from March 22-May 6, 2013. They are:

- ac provides for two compliance paths with regard to utilizing air spaces in conjunction with reflective surfaces.
- bm makes the baseline building in Appendix G equivalent to 90.1-2004 for interior lighting design.
- cl modifies IEER requirements for the air cooled air conditioners ≥65,000 Btu/hr and < 135,000 Bu/hr to increase the IEER from 12.8 to 12.9 for electric resistance heating units and 12.6 to 12.7 for gas fired units. It also revises air cooled heat pumps ≥65,000 Btu/hr and < 135,000 Bu/hr for electric resistance heating units from 12.0 to 12.2 and from 11.8 to 12.0 for gas fired units.

In addition, one addendum opens for public review on March 29, closing April 28.

- Addendum cv develops baseline energy use guidance for public assembly spaces toward assessing energy performance achievement of a proposed building. Public assembly spaces are typically designed and operated differently than surrounding spaces.

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Mon, March 25, 2013 – 1:00 pm to 4:00 pm ET

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Complying with Standard 90.1-2010: Envelope/Lighting
Wed, April 17, 2013 – 1:00 pm to 4:00 pm ET

Humidity Control Troubleshooting NEW
Mon, April 22, 2013 – 1:00 pm to 4:00 pm ET

Combined Heat & Power: Creating Efficiency Through Design & Operations
Wed, April 24, 2013 – 1:00 pm to 4:00 pm ET

Complying with Standard 90.1-2010: HVAC/Mechanical
Mon, April 29, 2012 – 1:00 pm to 4:00 pm ET

The Commissioning Process & Guideline 0
Wed, May 1, 2013 – 1:00 pm to 4:00 pm ET

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