



# ASHRAE

Technology for a Better Environment  
**Northern Nevada Chapter 126**  
November 2011 Newsletter

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**PRESIDENT'S MESSAGE:**  
**CHRIS LITTLE**

First another quick thank you to our speaker from last month, Matt Gaedtke, and everyone who showed up for another successful meeting. Let's keep it going! This month's meeting is going to be a lunch meeting on November 17<sup>th</sup>, at Bricks Restaurant in Reno. The lunch will be at noon. Please see below for details on the speaker. Several people may be seeing this e-mail for the first time, or at least the first time in a while. I have been attempting to update our e-mail list as much as possible and have added many area members from our membership lists that were not on our existing list. Please let me know if you feel you are receiving this e-mail in error, and more importantly please let me know if there are any of your coworkers/colleagues that would like to be on the Northern Nevada ASHRAE mailing list that currently are not. Thank you and see everyone at Bricks!

-Chris Little

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**PRESIDENT ELECT / PROGRAMS CHAIR:**  
**BRYAN TILTON**

**November 2011 Meeting ~ Thursday, November 17th, 2011**

The meeting will be held at the Claim Jumper Restaurant  
Lunch served at 12:15

**Brick's Restaurant & Wine Bar**  
**1695 South Virginia Street Reno, NV 89502**  
**(775) 786-2277**

Attendance at our second dinner meeting was wonderful yet again. This month we are switching things up a bit and doing a lunch meeting. It will be our goal to try and stay within the lunch period the best we can. We hope some of you that are unavailable to attend the dinner meetings will find this as an opportunity to attend a meeting that might not conflict with life after work.

**Speaker:**

**Rick Cravy – Regional Sales Engineer, Ruskin Company.**

**Bio:**

Richard Cravy is a Regional Sales and Application Manager for Ruskin Company. He has worked for Ruskin for over 25 years and resides in Lee's Summit, Missouri. Rick's career with Ruskin began in the service department as a service engineer but he has been involved in sales and marketing for the last 20 years. Before Ruskin, Rick's experience included the United States Marine Corps and employment in the temperature controls industry. He attended school at Missouri Institute of Technology, where he studied Electronic Engineering.

Rick is an ICC, ASHE and NFPA member. He is currently an alternate on the technical committee for NFPA80 and 105 and a past chairperson for the Air Movement and Control Association's Code Action and Review Committee. He has authored or co-authored several articles about fire/smoke dampers for trade publications and has developed or assisted in developing seminars about fire/smoke dampers. He has helped educate Code Officials, Engineers, Fire Marshals, Architects and Sheet Metal Contractors about the Building Codes and about the proper Installation and Application of Fire/Smoke Dampers.

**Topic Summary:**

Presentation will be on the Air Measurement Fundamentals.

I look forward to seeing you all at Brick's for lunch!

**TREASURER CHAIR:**  
**BRIAN BASSI**

"Checking account balance is \$3,185.78 and savings account balance is \$12,515.35. It was another great turnout for last month's dinner meeting. Let's keep it up!"

**RESEARCH AND PROMOTION CHAIR:**  
**SANDOR DURAN**

ASHRAE Members-

We are continuing campaign and need your help to do our Chapters part to help further research in our industry. We have a Chapter goal of \$5,000 to be donated for the 2011-2012 Research Promotions Campaign. I'd like to thank those that have contributed in the past, but we will need everyone's help to reach our goal for this year. Please start thinking about what you can do as an individual to help our chapter do its part to support the research projects that help keep our industry moving forward by improving the technology that shapes the systems that we are all involved with.

Please at a minimum take some time request that your company support our chapter with a donation to the ASHRAE RP Campaign!

To make a contribution online please visit the following website: <https://xp20.ashrae.org/secure/researchpromotion/rp.html>  
Please send any donations or checks to my office for collection and processing, or bring the checks to a meeting and give it to me there! You will receive receipt that can be used for tax-deduction purposes.

ASHRAE  
C/O CR Engineering  
5434 Longley Lane  
Reno NV 89511  
Sandor Duran  
RP Chair, ASHRAE N. Nevada

Please join us for our November ASHRAE meeting as we recognize the following donors from the 2010/2011 Research Promotion campaign:

Mr. Jason Bender  
Mr. Brandon Etchemendy, PE  
Mr. Christopher Little  
Mr. Bryan Tilton  
Mr. Brian Bassi  
Mr. Douglas Deangeli  
Precision Environmental & Power Inc  
RHP Mechanical Systems  
MicroMetl Corporation

I would like to thank all of you for your contributions and I hope to see everyone at the next meeting.

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**MEMBERSHIPS PROMOTIONS CHAIR:**  
**CHUN LEE**

Welcome to another great year for the Northern Nevada chapter of ASHRAE. I would like to take this moment to thank everybody for being members and participants of this great grass-root organization. It has been very trying times these past years for the construction industry as well as the HVAC industry in our community. But like an old Chinese saying goes: you cannot rebuild the world without first rebuilding your community from within. That is what makes each and every one of your memberships so important. Your membership fees goes into researches and studies for a variety of topics that affect our everyday design, calculations, installation, and equipment usage. ASHRAE uses these researches and studies to develop guidelines in which we can educate owners for future and current projects. That is why (in a roundabout way) we need your membership in order to help the HVAC industry rebuild so that we can not only help rebuild the construction industry but also the world.

**CHAPTER SECRETARY CHAIR:**  
**JASON BENDER**

**2010-2011 Northern Nevada ASHRAE BOG Meeting**  
**Meeting Notes by Brian Bassi - Secretary**  
**October 13<sup>th</sup>, 2011**

*Members attending: Brandon Etchemendy, Jason Bender, Chris Little, Bryan Tilton, Chun Lee and Brian Bassi*

Meeting occurred at 12:00 p.m. at Great Basin Brewing Co., Reno

- ASHRAE BOG Agreed to commit to Full-Circle again for the Research Promotion campaign for this Season
- ASHRAE Northern Nevada Wine Tasting will (tentatively) be held 1/13/12 at Whispering Vines.
- Brandon Etchemendy has volunteered to organize our Fall 2012 Golf Tournament. Additional volunteers will be needed as we approach the planning stages.
- November 17<sup>th</sup> is our Monthly meeting – a LUNCH meeting. We hope this offers some new and returning members who haven't been to meetings recently the opportunity to attend.

Meeting adjourned at 1:10 p.m.

**SHOOT CHAIR:**  
**MATT BRENNAN / No update this month.**

**CRC & STUDENT ACTIVITIES CHAIR:**  
**CANDICE GEORGE / No update this month.**

**Mission Statement**

*To advance the arts and sciences of heating,  
ventilating, air conditioning and refrigeration,  
to serve humanity and promote a sustainable world.*

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For Release:  
Oct. 20, 2011

Contact: Jodi Scott  
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#### ASHRAE Presidential Member Bellenger Remembered

ATLANTA— Immediate past ASHRAE President Lynn G. Bellenger, who served as the first woman president in the Society's 116 year history, passed away Wednesday, Oct. 19. She was president for the 2010-11 Society year, with her term ending in June 2011.

Bellenger, P.E., Fellow ASHRAE, was a recognized expert in energy management, with a strong focus on the need for energy modeling to help create and refine more efficient buildings. She was a partner, Pathfinder Engineers & Architects, Rochester, N.Y.

"We at ASHRAE are greatly saddened by the death of our former president and our friend," Ron Jarnagin, ASHRAE president, said. "Her lifelong passion for engineering excellence resonated within our membership and our industry, inspiring us through her belief that engineers will lead an energy revolution with innovation. Through her service, she showed that there is a path available to all who wish to extend the influence of engineering principles to better serve the world we live in."

As ASHRAE president, Bellenger focused on Modeling a Sustainable World, sharing her thoughts about the role of modeling tools and how all involved in the built environment industry must come together to take advantage of "the rich opportunities for optimizing building performance through a collaborative approach from the beginning."

In an interview last year, Bellenger talked about her involvement in energy efficiency and how much has been put in recent years on the need to save energy.

"One of the cool things about the sustainability movement is that it has ignited a passion in people that is changing the world. That passion has brought a sense of energy and excitement to the industry and attracted people who are committed to designing and operating sustainable buildings. I don't see that changing in the future," she said.

Bellenger was a recipient of an ASHRAE Exceptional Service Award, a Distinguished Service Award, two first-place ASHRAE Technology Awards and the Lincoln Bouillon Membership Award.

She received a Bachelor of Science in mathematics from Principia College and a Master of Science in environmental science from Rutgers University.

Funeral arrangements are private.

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For Release:  
Oct. 26, 2011

Contact: Jodi Scott  
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ASHRAE and Penn State Partner on Building Efficiency Hub

Philadelphia – A newly signed memorandum of understanding brings together ASHRAE and Pennsylvania State University (Penn State) to improve energy efficiency and reduce the environmental impact of buildings through the Greater Philadelphia Innovation Cluster (GPIC) for Energy-Efficient Buildings.

ASHRAE and Penn State signed the memorandum today to pursue common objectives related to GPIC. GPIC is a 24-member consortium, being led by Penn State, which has been designated as an Energy Innovation Hub of the U.S. Department of Energy and is located at the Navy Yard in Philadelphia, Pa. The goals of GPIC are to transform the building retrofit industry from serial fragmentation to integrated systems methods, to improve design tools, building systems, public policies, market incentives and workforce skills needed to achieve a 50 percent reduction of energy use in buildings, and to stimulate private investment and quality job creation in Greater Philadelphia and beyond.

“ASHRAE is looking forward to working closely with Penn State and other GPIC members on improving energy efficiency and reducing carbon emissions,” Ron Jarnagin, ASHRAE president, said. “GPIC represents an exciting step forward in finding ways to increase energy efficiency. ASHRAE is happy to bring the knowledge and technical expertise of its volunteer members to the table to help create a broader knowledge of energy efficient and sustainable building practices.”

“ASHRAE brings a tremendous amount of technical knowledge and experience that will be very useful to the GPIC as we strive toward solving one of the nation's most serious energy problems by dramatically reducing energy consumption in commercial buildings. Together, we can create quality jobs in the region and boost the building industry,” Henry Foley, executive director of the GPIC and vice president for research for Penn State, said.

ASHRAE will assist in the GPIC effort in several areas, including research, education, certification, standards and guidelines and by applying the society's Building Energy Quotient (bEQ) program to buildings at the Navy Yard. ASHRAE may also help obtain As-Designed and In-Operation bEQ ratings for buildings in Greater Philadelphia and can ensure that GPIC considers use of ASHRAE certifications to support its objectives.

ASHRAE, founded in 1894, is an international organization of some 50,000 people. ASHRAE fulfills its mission of advancing heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.

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For Release:  
Nov. 1, 2011

Contact: Jodi Scott  
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DOE Updates National Reference Standard for Commercial Buildings to 90.1-2010

ATLANTA – Following preliminary analysis that ASHRAE/IES's 2010 energy efficiency standard contains significant energy savings over the 2007 standard – 18.2 percent source energy savings and 18.5 site energy savings – the U.S. Department of Energy (DOE) has issued a ruling that establishes the 2010 standard as the commercial building reference standard for state building energy codes.

In an announcement in the Oct. 19 edition of The Federal Register, DOE attributes the greater energy savings to improvements in ANSI/ASHRAE/IESNA Standard 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings, related to better lighting, day lighting, controls and building envelope and better mechanical systems and application to more systems.

With the Oct. 19 ruling, Standard 90.1-2010 serves 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 Oct. 18, 2013, that they have updated the provisions of their commercial building code regarding energy efficiency to meet or exceed 90.1-2010.

“The foundation of energy efficient buildings continues to grow stronger with the news that DOE is now referencing the 2010 standard,” Ron Jarnagin, ASHRAE president, said. “ASHRAE hopes to make that foundation even stronger through our current work with IES developing the 2013 standard.”

“The DOE has determined that the quantitative analysis of the energy consumption of buildings built to Standard 90.1-2010, as compared to buildings built to Standard 90.1-2007, indicates national source energy savings of approximately 18.2 percent of commercial building consumption,” according to DOE. “Additionally, DOE has determined site energy savings are estimated to be approximately 18.5 percent.”

The DOE noted that the newer version of the standard contains 19 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. Specifically the positive impacts include:

- Requirements for day lighting controls under skylights and commissioning of day lighting controls; increased use of heat recovery; cool roofs in hot climates; lower illuminance in certain exterior zones; skylights and day lighting in some building types; reduced ventilation energy; supply air temperature reset for non-peak conditions; efficiency requirements for data centers; lower lighting power densities; control of exterior lighting; occupancy sensor for many specific applications; day lighting control requirements for side-lighted spaces; and day lighting controls in more spaces.
- Updated chiller efficiency requirements.
- Extension of VAV fan control requirements.
- Expansion of new lighting power densities to more retrofits and automatic damper requirements and use of economizers
- Minimizes exceptions to switched receptacle requirement.

The ruling comes on the heels of a July announcement that established the 2007 standard as the as the commercial building reference standard for state building energy codes. The DOE noted that because the 2010 determination was published prior to the two-year deadline states have to demonstrate that their energy code meets or exceeds the stringency of the 2007 standard, states are allowed to file just one certification to address both determinations.

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.

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For Release:  
Nov. 3, 2011

Contact: Jodi Scott  
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2012 Winter Conference  
ASHRAE Tech Program Focuses on Current Practices

ATLANTA – Current practices related to hot industry topics, such as energy modeling, high performance buildings and integrated design, are featured in the Technical Program at ASHRAE’s 2012 Winter Conference.

The 2012 Winter Conference takes place Jan. 21-25, Palmer House Hilton, Chicago. The ASHRAE co-sponsored International Air-Conditioning, Heating, Refrigerating Expo®, held in conjunction with the Winter Conference, will run Jan. 23-25 at McCormick Place.

“The 102 sessions in the Technical Program provide attendees the information they need to stay competitive and educated in today’s market,” Dennis Wessel, chair of ASHRAE’s Conferences and Expositions Committee, said. “The program features 10 program tracks that provide plenty of case study and current-practice sessions on a wide range of pertinent subjects that provide insight into how to do a job better or more efficient.”

The technical program features more than 100 programs by nearly 300 speakers with tracks on Energy Efficiency – New Applications and Technology; Energy Modeling Applications; High Performance Buildings; HVAC&R Fundamentals and Applications; HVAC&R System and Equipment; Installation, Operation and Maintenance of HVAC Systems; Integrated Design; Professional Skills; Refrigeration; and Specialized Applications – Healthcare, Laboratories and Data Centers.

As an added benefit, there is a new “mini-conference” on Installation, Operation & Maintenance of HVAC Systems built within the Technical Program. The O&M mini-conference is scheduled on Sunday and Monday.

ASHRAE is also offering a free Conference session at the Expo. This session brings to AHR Expo attendees a program that advances their knowledge on a particular topic. This session is titled “Selection, Operation and Maintenance and Water Treatment for Multi-Metal Boilers” and takes place Monday, Jan. 23, 3 p.m.-4:30 p.m., S106A, McCormick Place. No badge or ticket is required to attend.

In total, the program includes nine technical paper sessions, 31 conference paper sessions and a poster session – 54 application-oriented, non-paper seminars and eight open discussion forums.

Highlights of the Technical Program include:

Energy Efficiency track: “DOAS Parallel Systems, Configuration and Control” and “Case Studies: New Equipment and Applications”

Energy Modeling Applications track: “Integrated Multi-domain Simulations for Innovative Building Design and Operation”

High Performance Buildings track: “Advanced Control and Diagnostic Techniques for Efficient Operation of High Performance Buildings,” “UK Perspectives on Incentives for Technologies to Reduce Energy Use,” “Thermal Displacement Ventilation Applications for High Performance Buildings”

HVAC&R Fundamentals and Applications track: “How to Specify Seismic Certification,” “Loads on the Move: Mobile Apps”

HVAC&R Systems and Equipment track: “Chicago Smackdown: Air-Source vs. Ground Source or Best Practices for Air-Source vs. Ground-Source Heat Pump Systems,” “Water-Cooled VRF Systems: An Introduction,” “Back to Basics: Selection of Proper Chiller Technology”

Integrated Design track: “Streamlining BIM through Open Information Exchanges,” “Advancing the ‘I’ in BIM”

Professional Skills track: “Protecting Your Design Against Changing Requirements,” “Increase the Impact of Your Presentation”

Refrigeration track: “Industrial Refrigeration Worst Practices,” “Magneto-Caloric Refrigeration: Are You Attracted to Cool Ideas?,” “Advancements and Trends in Low Global Warming Impact Technologies”

Specialized Applications – Healthcare, Laboratories, and Data Centers track: “Optimizing Cleanrooms for High Performance, Energy Reduction and Sustainability,” “Liquid Cooling Technologies to Enable High Density and Improve Energy Efficiency of Information Technology Data Center Facilities”

The full Technical Program offers the opportunity to earn a year’s worth of PDHs, NY PDHs, AIA LUs and LEED® AP credits.

For more information on the ASHRAE Conference, visit [www.ashrae.org/chicago](http://www.ashrae.org/chicago). For more information on the AHR Expo, visit [www.ahrexpo.com](http://www.ahrexpo.com).

The Chicago Virtual Conference is included with a paid Conference registration—comp and single day registration excluded—and includes on-demand access to all speakers’ audio presentations synced to their presentations. Attendees and speakers can post comments on the presentations for a two-week period following the completion of the Conference. Those not attending the Chicago Winter Conference in person may register for the Virtual Conference only. Register at [www.ashrae.org/chicagovirtual](http://www.ashrae.org/chicagovirtual).

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# ASHRAE Learning Institute

Seminars & Courses at ASHRAE's Winter Conference in Chicago, IL

## 2 WAYS TO REGISTER

Internet: [www.ashrae.org/lasvegascourses](http://www.ashrae.org/lasvegascourses)

Phone: Call 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)



## Full Day Professional Development Seminar

\$485/\$395 ASHRAE Member -- Earn 6 PDHs/AIA LUs or .6 CEUs

**The Commissioning Process in New & Existing Buildings**  
Saturday, Jan 21 – 8:00 a.m. to 3:00 p.m.

**Data Center Energy Efficiency**  
Saturday, Jan 21 – 8:00 a.m. to 3:00 p.m.

**Integrated Building Design**  
Saturday, Jan 21 – 8:00 a.m. to 3:00 p.m.

**Using Standard 90.1 to Meet LEED Requirements**  
Tuesday, Jan 24 – 9:00 a.m. to 4:00 p.m.

**Energy Modeling Best Practices and Applications:  
HVAC/Thermal**  
Tuesday, Jan 24 – 9:00 a.m. to 4:00 p.m.

## Half Day Short Courses

\$159/\$119 ASHRAE Member -- Earn 3 PDHs/AIA LUs or .3 CEUs

**Understanding Air-to-Air Energy Recovery Technologies & Applications**  
Sunday, Jan 22 – 2:00 p.m. to 5:00 p.m.

**Understanding & Designing Dedicated Outdoor Air Systems (DOAS)**  
Sunday, Jan 22 – 2:00 p.m. to 5:00 p.m.

**Application of Standard 62.1-2010: Multiple Spaces Equations  
& Spreadsheet Calculation**  
Sunday, Jan 22 – 2:00 p.m. to 5:00 p.m.

**Basics of High-Performance Building Design**  
Monday, Jan 23 – 8:30 a.m. to 11:30 a.m.

**Complying with Standard 90.1-2010: Envelope/Lighting**  
Monday, Jan 23 – 8:30 a.m. to 11:30 a.m.

**Energy Management in New & Existing Buildings**  
Monday, Jan 23 – 8:30 a.m. to 11:30 a.m.

**Advanced High Performance Building Design**  
Monday, Jan 23 – 2:30 p.m. to 5:30 p.m.

**The Commissioning Process & Guideline 0**

**Comply with Standard 90.1-2010: HVAC/Mechanical**  
Monday, Jan 23 – 2:30 p.m. to 5:30 p.m.

**Evaluating the Performance of LEED-Certified Buildings**  
Monday, Jan 23 – 2:30 p.m. to 5:30 p.m.

**Combined Heat & Power**  
Tuesday, Jan 24 – 9:00 a.m. to 12:00 p.m.

**Healthcare Facilities: Best Practice Design**  
Tuesday, Jan 24 – 9:00 a.m. to 12:00 p.m.

**Project Management for Improved IAQ**  
Tuesday, Jan 24 – 9:00 a.m. to 12:00 p.m.

**Healthcare Facilities: Best Practice Applications**  
Tuesday, Jan 24 – 1:00 p.m. to 4:00 p.m.

**Design Toward Net Zero Energy Commercial Buildings**  
Tuesday, Jan 24 – 1:00 p.m. to 4:00 p.m.



ASHRAE  
LEARNING INSTITUTE

## ASHRAE HVAC Design Essential Workshop

January 11-13, 2012 • ASHRAE Foundation Learning Center • Atlanta, GA

### Obtain the skills needed to:

- Improve overall building performance
- Design high-performance HVAC systems
- Effectively collaborate on an integrated design team

ASHRAE has created the HVAC Design Essentials to provide intensive, practical education for designers and others involved in delivery of HVAC services. Developed by industry-leading professionals, this workshop provides participants with training design to accelerate their evolution into effective member on a design, construction or facilities maintenance team.

In addition to gaining in-depth knowledge and understanding, attendees will receive real-world examples of HVAC systems based on the newly renovated ASHRAE Headquarters building. The workshop teaches a systematic approach to guide a design team to a solution that optimally meets the client's expectations.

Visit [www.ashrae.org/hvacdesign](http://www.ashrae.org/hvacdesign) to register