

Florida West Coast Chapter  
ASHRAE  
3203 Queen Palm Drive  
Tampa, Florida 33619

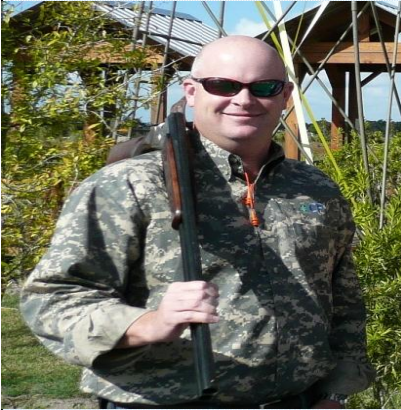


## Keeping it Cool with ASHRAE



### Special points of interest:

- > The next FWC Meeting of the new year will be Tuesday, January the 18th at The Columbia.
- > ASHRAE Golf Tournament on February 18th!



## From the Desk of the President

Welcome back and Happy New Year! I hope everyone enjoyed the holiday season.

Have you ever heard of John Gorrie? Well until this writing, I hadn't either. Mr. Gorrie was a physician in Apalachicola Florida. In 1842 he used compressor technology to create ice which he used to cool air in order to keep his patients comfortable. He was quite a dreamer because he even envisioned centralized air conditioning that could be used to keep entire cities cool.

In 1851 he was granted a patent for his ice making machine. However, soon after this everything took a turn for the worse. His chief financial backer had the audacity to up and die. Four years after he was granted his patent, John Gorrie died impoverished and along with him went the idea for air conditioning for another 50 years.

Now that the history lesson is over, I would like to take this opportunity to tell you about some of the great things your Florida West Coast Chapter has done this year. Jason Proctor has been doing a fantastic job with Research Promotion this year. He was one of a few RP Chairs in the entire country to hit the 30% goal by December 31<sup>st</sup>. Shawn Jeffrey put on a terrific event in December at the Bucs game that is sure to become an annual event. And Adam Parke organized a great tour of the Yeungling Brewery that was quite tasty.

We have a lot more planned for you this year. Ike Crimm is putting on the golf tournament again this year on February 18<sup>th</sup> and we have our annual FWC Shrimp Boil scheduled for April 8<sup>th</sup>. Our next meeting is January 18<sup>th</sup>. I'll see you all there.

Jeff Ross, FWC President (2010-2011)

### Inside this issue:

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## Program Events

Well HAPPY NEW YEAR! We are starting our new year with a bang with a Distinguished Lecturer Mr. Robert (Bob) Baker coming to speak to our chapter about **HVAC System Maintenance for High Performance Buildings**.

Mr. Baker owns BBJ Environmental Solutions, which manufactures a line of chemical specialties used in coil cleaning and other aspects of HVAC maintenance. He has over 25 years of experience in all facets of building operation and maintenance. He also heads a consulting practice (The RGB Group) that advises building owners on HVAC operations and maintenance matters.

Mr. Baker will explain how ASHRAE Standard 180 can be valuable to design engineers as well as building owners. After hearing this presentation, attendees will be able to explain how implementation of the new standard coupled with retro-commissioning of a building can save an owner thousands in wasted energy, improve indoor air quality, and sustain a satisfactory level of indoor environmental quality.

Please send your RSVP's to me at [shawn.jeffrey@kpiengineering.com](mailto:shawn.jeffrey@kpiengineering.com)

Shawn Jeffrey, Jr., FWC Programs Chair (2010-2011)



## Research Promotion

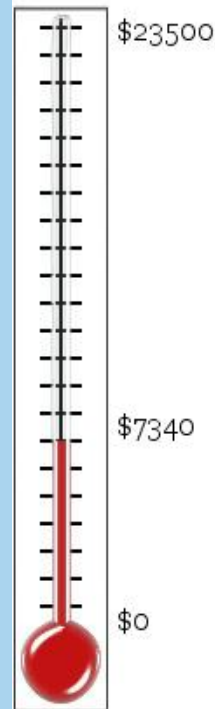
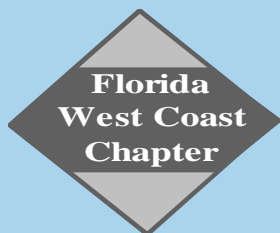
Let me start by personally thanking each and every investor both individual and corporate, it is because of you that the Florida West Coast Chapter continues to set the standard and lead the way, not only in Region XII but on a national level.

As of December 31, the Florida West Coast Chapter has collected over \$ 7,340, so please be sure to recognize those investors that are listed in this newsletter.

Please make your contributions early this year either by check 'Payable to ASHRAE Research' and turn them in to me or if you prefer you can make online donations at [https://www.ashrae.org/aboutus/resource\\_promotion.asp](https://www.ashrae.org/aboutus/resource_promotion.asp).

If you make a donation online, please forward me a copy of the emailed invoice so I can ensure that proper credit is given at [jason@vickerycompany.com](mailto:jason@vickerycompany.com).

**Jason Proctor**  
**FWC Membership Chair**  
**(2010-2011)**



## Membership Promotion

**Membership Advancement: Why me, because you have earned your advancement.** Greetings from your Florida West Coast Chapter of ASHRAE. In talking to several members, they were unaware that they could advance to the level of member from associate or from student member to associate. A few didn't realize that there were different grades which I take on as a failure on my part for not bringing this in front of the greatest chapter on this green earth. Here is the breakdown of a few of the grades in ASHARE with a brief description of your benefits:

### Life Member/Life Associate Member

Be in Good standing and a member or associate member for 30 years or greater and 65 years old.

### **Rights and privileges of most recent membership grade**

### Member

At the time of admission or advancement, a Member shall have the equivalent of 12 Society-approved years of experience composed of an approved combination of: (1) completed education beyond high school; (2) work experience\*; and (3) professional engineering or related registration or license issued by a legally authorized body. \*Qualifying work experience must be in the performance of duties in work related to ASHRAE fields and shall have included research, teaching, design, contracting, engineering sales, or engineering management.

**Members have voting privileges; receive the ASHRAE Journal, Insights, ASHRAE handbook and the eNewsletters; Access to the Members only website; discounts on ASHRAE products and services; and access to group insurance.**

### Associate

An Associate Member shall have had experience in technical matters or in design, operation, or maintenance in HVAC&R fields; shall have an interest in the advancement of the Society's aims, and shall possess sufficient qualifications to cooperate with HVAC&R engineers in the advancement of the knowledge relating to HVAC&R engineering and its application.

**Associate Members have voting privileges; receive the ASHRAE Journal, Insights, ASHRAE handbook and the eNewsletters; Access to the Members only website; discounts on ASHRAE products and services; and Group insurance.**

Continued on Page 3.

## Refrigeration

### December 2010 Yuengling Brewery Tour Follow-Up

Everyone who attended the December 10<sup>th</sup> Florida West Coast Chapter tour of the Yuengling Brewery experienced a special treat. Our main tour guide, Elizabeth, had us laughing during most of the tour. She has a perfect sense of comic timing and had many hilarious stories about the beer production and the joys of working for a family-owned company.

We were given a VIP tour of the traditional beer production areas along with a special tour of the “power house” and the “government cellar”. The “power house” holds boilers and ammonia refrigeration equipment used to heat and to cool the beer as it goes through various stages of production. As for the “government cellar”, you’ll have to ask someone who went on the tour.

After the tour, we went back to the hospitality house to sample some of Yuengling’s fine products. I heard at least one ASHRAE member state that this was the “best FWC ASHRAE tour ever”. I cannot confirm nor deny this statement. I do know that if you were lucky enough to attend this tour, you were shown a great and memorable time. Thanks to all the ASHRAE members and friends who came out and helped make this a tour to remember!



**Adam Park, Refrigeration Chair (2010-2011)**

## Why We Give To ASHRAE (ASHRAE Research)

### ASHRAE Research – Working to Improve...

*1306-RP Incident-Response Monitoring Technologies for Aircraft Cabin Air Quality*

Research is needed to strengthen the role of a new ASHRAE Standard (ASHRAE 161) that will address incidence response monitoring in aircraft. Standard developers need to be certain that there is equipment available to support a newly developed standard by means of measurement capabilities. The results of this research project will provide a knowledge base on equipment availability and limitation. This research project is anticipated to result in demonstration of methods and technologies for characterization of aircraft engine/APU systems contaminants in aircraft cabins during an incident occurrence. Use of these methodologies will generate data that can be correlated with passenger and flight attendant complaints about air quality. Such data will also enable the aircraft manufacturers, airline companies, and regulatory authorities to analyze the underlying causes of air supply contamination in the aircraft cabin environment and ultimately institute preventative design operations measures. To read more about what ASHRAE Research is doing to improve the world around you visit us online at <http://www.ashrae.org/technology/page/39>

## Membership Promotion (Cont.)

Continued from Page 2.

### Affiliate

An Affiliate Member shall have had HVAC&R experience; Interest in Society’s goals; must be a new member (cannot have ever held Student Member status).

This is an **introductory** membership into ASHRAE that automatically graduates to Associate Member after 3 years.

If you have any questions regarding your membership, please contact me at your earliest convenience. You can contact me at [pjean@stanweaver.com](mailto:pjean@stanweaver.com) or call Stan Weaver and Company at 813-879-0383. If I am not available ask for Jackie Johnson or Stan Weaver.

**Philippe Jean, PE Membership Promotion Chair (2010-2011)**



### Past Presidents

1957-58 Karl K. Hickman	1984-85 Charles E. Langbein
1958-59 Sam F. Graziano	1985-86 Thomas H. Williams
1959-60 Julian Johnson	1986-87 Caire A. Boe
1960-61 Ken Whittington	1987-88 Frank Grandinetti
1961-62 Mark E. Mooney	1988-89 Carl B. Lawson
1962-63 James A. Hargan	1989-90 Robert M. Little
1963-64 Daniel R. Manrique	1990-91 Edward C. Spivey
1964-65 E. J. Bauerlien	1991-92 Robert P. Sutton
1965-66 Henry Graham	1992-93 Roger B. Redman
1966-67 Richard Kohle	1993-94 Stephen A. Chittenden
1967-68 Lamar King/Leland B. Menard	1994-95 William M. Slade
1968-69 Ed Fuller	1995-96 Juan A. Soler
1969-70 William A. Smith	1996-97 Timothy J. Citek
1970-71 Fareed T. Ossi	1997-98 Mark Smith
1971-72 Lee Bendall	1998-99 Joseph Griner, III
1972-73 John Degian	1999-00 Colleen Smith
1973-74 Mark Chambers	2000-01 John W. Wells, III
1974-75 Charles "Stan" Weaver	2001-02 Gary Stenlund
1975-76 Charles D. Jacobs	2002-03 Bill Wright
1976-77 Peter Scott	2003-04 Don Crosby
1977-78 Ray Rinke	2004-05 Ted S. Hansen, Sr.
1978-79 Lloyd H. Biossoneault	2005-2006 P.J. Crespo
1979-80 James H. Carroll, Jr.	2006-2007 Dan Herrera
1980-81 S. Michael Tappouni	2007-2008 Jennifer Isenbeck
1981-82 Alberto J. Sanchez	2008-2009 Debie Horsey
1982-83 James L. Repp	2009-2010 Drew Elsberry
1983-84 Rodney C. Thomas	

### TEGA Update

Well, another year has come and gone, and we're half way through another ASHRAE year... how time flies when you're having fun!

It has been a while since the FWC has entered a project in the regional technology award competition, and the chapter would like to recognize the work of our engineering community by submitting a project for the 2010-2011 competition. The regional competition submission is very easy and it is not a time consuming endeavor; give me a call if you need further info. Anyone care to make a run for the Gold? Speaking of Gold...

#### GSA Moves to LEED Gold Standard for All New Federal Buildings

According to a recent DOE press release (<http://bit.ly/cFi2o5>), the U.S. General Services Administration (GSA) is upgrading the requirement for new federal building construction from LEED Silver to LEED Gold certification. The new requirement will also apply to substantial renovation projects. GSA announced on October 28 that the higher rating would be reflected in GSA's Facilities Standards for the Public Buildings Service by the end of calendar year 2010. GSA uses the Leadership in Energy and Environmental Design, or "LEED", Green Building Rating System of the U.S. Green Building Council to evaluate and measure achievements in sustainable design. For projects funded prior to FY 2010 that are now being designed, GSA is requiring that LEED Gold prerequisites and other specific requirements be incorporated into ongoing designs whenever possible after considering budget and schedule constraints.

I wish all of our members a safe, happy and prosperous 2011!

**Joe Souza, TEGA Chair (2010-2011)**

Your Florida West Coast Chapter website has been updated and is looking for more content! Is there information you would like to see made available online? Do you have questions about the Florida West Coast Chapter? Let us know! Feel free to email your Cyber Chair, [Jason Babinec](mailto:Jason.Babinec) with any concerns or comments.

This home page is maintained by the Florida West Coast Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. ASHRAE chapters may not act for the Society and the information presented here has not had Society review. To learn more about ASHRAE activities on an international level, contact the ASHRAE home page at <http://www.ashrae.org>.

### Board Members, Committee Chairs and Contact Info:

<u>Jeff Ross</u> President 813-918-8252	<u>Shawn Jeffrey</u> Pres. Elect/Programs 813-731-1062	<u>Jason Proctor</u> V.P./Research Promotion 813-917-1648	<u>Philippe Jean</u> Membership/Education 813-541-3516	<u>Joe Souza</u> Treasurer/TEGA 813-309-2155	<u>Joe Cox</u> Secretary/Student Chair 813-763-9654
<u>Debie Horsey</u> YEA Chair 813-97748-9406	<u>Dan Herrera</u> Historian 813-839-0506	<u>David Henry</u> Governor 813-310-8977	<u>Adam Parke</u> Refrigeration 813-228-1755	<u>Mike Costello</u> Publicity/Governor 813-300-4662	<u>Michael Cowles</u> Newsletter/Governor 813-241-6488
<u>Drew Elsberry</u> Nominating/Governor 813-267-0973	<u>Ike Crimm</u> Special Events 813-758-2749	<u>Leon Boe</u> Reception 813-879-0383	<u>Jason Babinec</u> Cyber Chair 863-581-6967	<u>Jason Proctor</u> Chapter Roster 813-917-1648	<u>Ike Crimm</u> Nominations/Governor 813-635-2271

Thank You to the following who have made their contributions already:

## **Florida West Coast Chapter Research Promotion Contributors for 2010-2011**

### **Bronze (\$500-\$999):**

**Advanced Automation Systems  
Air Mechanical & Service Corporation  
Dan Rogers**

### **Antique (\$250-\$499):**

**Original Solutions  
Consulting Engineering Associates  
Slade Ross  
Shawn Jeffrey  
Commercial Products Corporation  
Stan Weaver & Company**

### **Honor Roll (\$150-\$249):**

**Vickery & Company  
Luvata Electrofin  
Southern Independent Testing**

### **Individual Honor Roll – Investors (\$100-\$249):**

<b>Al Sanchez</b>	<b>Murray Woodgate</b>
<b>Joe Souza</b>	<b>Jason Proctor</b>
<b>Raoul Webb</b>	<b>Joe Cox</b>
<b>Jeffrey Ross</b>	<b>Phillippe Jean</b>
<b>Carl Lawson</b>	<b>John B Siegenthaler</b>
<b>Thomas H Williams</b>	<b>Robert J Barstow</b>
<b>John Siegenthaler</b>	<b>Adam Parke</b>
<b>Andrew Elsberry</b>	<b>Ross Montgomery</b>
<b>Debie Horsey</b>	<b>PJ Crespo</b>



# ASHRAE FLORIDA WEST COAST CHAPTER

JANUARY 18, 2011  
MR. ROBERT G. BAKER  
COLUMBIA RESTAURANT, YBOR CITY

The Florida West Coast Chapter of ASHRAE is proud to have Mr. Bob Baker from the BBJ Environmental Solutions and RGB Groups coming to speak to our chapter about:

### HVAC System Maintenance for High Performance Buildings

Robert Baker owns BBJ Environmental Solutions and has over 25 years of experience in all facets of building operation and maintenance. He also heads a consulting practice (The RGB Group) that advises building owners on HVAC operations and maintenance matters.



Mr. Baker is an enthusiastic contributor to our industry through several organizations. He is a past President of the Indoor Air Quality Association (IAQA). He is a member of ASHRAE and sits on two Technical Committees, and has written numerous papers, articles and is a regular ASHRAE presenter. He is chair of the ASHRAE/ACCA HVAC Inspection and Maintenance Standards Project Committee (SSPC180) and the Indoor Air Quality committee of the Consumer Specialty Products Association (CSPA). He previously chaired the IICRC S 520 Standard Committee and served on the HVAC Hygiene Standards committees of both ACCA and NADCA. He has been awarded the ASHRAE Distinguished Service Award and is an ASHRAE Fellow.

Please be sure to RSVP early as this meeting will sell out and we have limited seating.

Please RSVP on the FWC website at: [http://www.ashrae-fwc.org/chapter\\_meetings.htm](http://www.ashrae-fwc.org/chapter_meetings.htm)  
Cost: \$35 thru Paypal or \$40 day of (It is still \$40 day of even if you RSVP but do not pay thru Paypal)



Columbia Restaurant  
2117 East 7th Avenue  
Ybor City, Florida 33605

Email me with questions at [shawn.jeffrey@kpiengineering.com](mailto:shawn.jeffrey@kpiengineering.com) or call (813)241-6488

Shawn M. Jeffrey, Sr.  
FWC Programs Chair

- Meeting Schedule:**  
**Board Meeting:** 4:15pm — 5:30pm  
**Registration:** 5:00pm — 6:00pm  
**Main Meeting:** 6:00pm — 8:00pm



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**ASHRAE - Florida West Coast Chapter**  
**Annual Golf Tournament**  
 Friday, February 18<sup>th</sup> 2011 @ 12:30pm

**Sponsorship Levels:**

- \$625.00 ..... **Gold Team Sponsor** save \$50  
 Includes: 4-some Golf Team + Golf Pin Flag (1) + Tee Box Sign (1)
- \$525.00 ..... **Silver Team Sponsor** save \$25  
 Includes: 4-some Golf Team + Golf Pin Flag (1)
- \$500.00 ..... **Bronze Team Sponsor** save \$25  
 Includes: 4-some Golf Team + Tee Box Sign (1)
- \$800.00 ..... **Event Shirt Sponsor**  
 Company name/logo embroidered on sleeve of polo shirt given to each golfer & volunteer
- \$300.00 ..... **Tote Gift Bag Sponsor**  
 Company name/logo recognition on Tote Gift Bag given to all Golfers
- \$250.00 ..... **Putting Contest Sponsor**  
 Company name/logo recognition on signage at Putting Contest
- \$150.00 ..... **Longest Drive Sponsor**  
 Company name/logo recognition on signage at hole
- \$150.00 ..... **Closest to the Pin Sponsor**  
 Company name/logo recognition on signage at hole
- \$150.00 ..... **Golf Pin Flag Sponsor**  
 Company logo featured on weatherproof Pin Flag placed at hole on course / returned to sponsor after event
- \$125.00 ..... **Tee Sponsor**  
 Company name/logo featured on a sign prominently displayed at a Tee Box
- \$100.00 ..... **Individual Golfer**  
 Includes: Bag Lunch, Practice @ Range, Polo Shirt, Gift Bag, Golf & Cart Fee, and Awards Dinner

Donations of your company's logo items are also welcome for inclusion in the participant Gift Bag or as Raffle Prizes

**Location:** The Eagles Golf Club of Tampa Bay  
 Forest Course  
 16101 Nine Eagles Dr.  
 Odessa, FL 33556  
 Ph# 813.920.6681



**Special Contests** ..... Longest Drive hole, Closest to the Pin hole, and Putting Contest

**Schedule:** 10:30am ..... Registration Begins, Practice at the Range, Receive bag lunch  
 12:30pm ..... Shotgun Start of Golf Tournament (4-person Scramble format)  
 5:30pm ..... Reception and Awards Dinner (approximate time)

**Registration Information / online @ [www.ASHRAE-FWC.org](http://www.ASHRAE-FWC.org) \*All Payments Required Prior to Day of Event\***

Corporation /Name: _____	Golf Entrant 1: _____	Shirt Size: _____
Contact and Title: _____	Golf Entrant 2: _____	Shirt Size: _____
Mailing Address: _____	Golf Entrant 3: _____	Shirt Size: _____
City/State/Zip: _____	Golf Entrant 4: _____	Shirt Size: _____
Phone: _____		
Email Address: _____		

**Sponsorship**

Type/Level: \_\_\_\_\_ Qty: \_\_\_\_\_ Fee: \$ \_\_\_\_\_

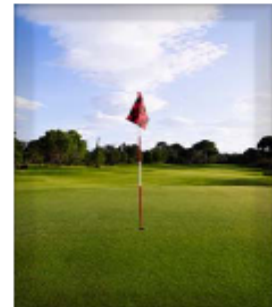
Type/Level: \_\_\_\_\_ Qty: \_\_\_\_\_ Fee: \$ \_\_\_\_\_

Total Fees: \$ \_\_\_\_\_

Submit JPEG/Vector file LOGO by January 28<sup>th</sup>, 2010 to: [isaacgrimm@engineer.com](mailto:isaacgrimm@engineer.com)

**Payment Information:**

Use PayPal online at: <http://www.ashrae-fwc.org/golftournament.htm>  
 OR...make checks payable to ASHRAE-FWC and mail to the following address:  
 ASHRAE-FWC Golf Tournament C/O Isaac Crimm  
 1511 N. Westshore Blvd., Suite #820  
 Tampa, FL 33607  
 For more information please email questions to: [isaacgrimm@engineer.com](mailto:isaacgrimm@engineer.com)







# ASHRAE Technology Awards

## Show the World You Made It



So why haven't you entered?

Be the winner of the industry's most prestigious honor for efficient use of energy in building and environmental system performance.

The ASHRAE Technology Awards recognize, on a global scale, successful applications of innovative design, which incorporate ASHRAE standards for effective energy management, indoor air quality, and mechanical design.

**Awards are given annually in the following categories:**

- Commercial buildings
- Industrial facilities
- Health care facilities
- Residential
- Public assembly
- Alternative or renewable energy use
- Institutional buildings

ASHRAE would like to recognize our 2009 first place winners:

- **Kenneth Sonmor**—St. Laurent Office Tower/Montreal, Canada
- **Laurier Nicols**—Centre Communautaire de Mississini/Misstissini, Quebec, Canada
- **Thomas Durkin**—HVAC Renovations at George Washington Carver Elementary School Indianapolis, Indiana
- **Jacques de Grace**—Normand-Maurice Building/Montreal, Quebec, Canada



For forms, information and deadlines visit [www.ashrae.org/technologyawards](http://www.ashrae.org/technologyawards)

Contact your CTTC RVC or R. Douglas at ASHRAE headquarters

**Phone:** 678.539.1128 | **Email:** [rdouglas@ashrae.org](mailto:rdouglas@ashrae.org)

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.



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# ASHRAE Learning Institute

Seminars & Courses at ASHRAE's Winter Conference in Las Vegas, NV

## 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)



ASHRAE  
LEARNING INSTITUTE

### Full Day Professional Development Seminar

\$485/\$395 ASHRAE Member -- Earn 6 PDH/6 CEU or 6 AIA LU credits

**The Commissioning Process in New & Existing Buildings**  
Saturday, Jan 29 – 8:00 a.m. to 3:00 p.m.

**Implementing Energy Management in New and Existing Buildings: A Sustainable Activity**  
Saturday, Jan 29 – 8:00 a.m. to 3:00 p.m.

**Healthcare Facilities: Best Practice Design and Application**  
Saturday, Jan 29 – 8:00 a.m. to 3:00 p.m.

**Integrated Building Design**  
Saturday, Jan 29 – 8:00 a.m. to 3:00 p.m.

**Complying with ASHRAE/IES Standard 90.1-2010**  
Saturday, Jan 29 – 8:00 a.m. to 3:00 p.m.

**Energy Modeling Best Practices and Applications: HVAC/Thermal**  
Tuesday, Feb 1 – 9:00 a.m. - Noon, 2:00 p.m. - 5:00 p.m.

### Half Day Short Courses

\$159/\$119 ASHRAE Member -- Earn 3 PDH/3 CEU or 3 AIA LU credits

**Fundamental Requirements of ASHRAE Standard 62.1-2010**  
Saturday, Jan 29 – 8:00 a.m. to 11:00 a.m.

**Application of Standard 62.1-2010: Multiple Spaces Equations & Spreadsheet Calculation**  
Saturday, Jan 29 – Noon to 3:00 p.m.

**Understanding Air-to-Air Energy Recovery Technologies and Applications**  
Sunday, Jan 30 – 2:00 p.m. to 5:00 p.m.

**Chilled Beam Technology for Excellent Indoor Climate in an Energy Efficient Manner**  
Sunday, Jan 30 – 2:00 p.m. to 5:00 p.m.

**Using Standard 90.1 to Meet LEED Requirements**  
Sunday, Jan 30 – 2:00 p.m. to 5:00 p.m.

**The Commissioning Process & Guideline 0**  
Monday, Jan 31 – 2:30 p.m. to 5:30 p.m.

**Determining Energy Savings from Performance Contracting and LEED Projects: M&V**  
Monday, Jan 31 – 2:30 p.m. to 5:30 p.m.

**Understanding Standard 189.1-2009 for High-Performance Green Buildings**  
Monday, Jan 31 – 2:30 p.m. to 5:30 p.m.

**Understanding & Designing Dedicated Outdoor Air Systems (DOAS)**  
Tuesday, Feb 1 – 9:00 a.m. to Noon

**Low Temperature Radiant Heating & High Temperature Radiant Cooling Systems**  
Tuesday, Feb 1 – 9:00 a.m. to Noon

**Successful Solar Applications for Commercial & Industrial Facilities**  
Tuesday, Feb 1 – 9:00 a.m. to Noon

**Avoiding IAQ Problems: Using ASHRAE's New IAQ Guide**  
Tuesday, Feb 1 – 2:00 p.m. to 5:00 p.m.

**District Cooling & Heating Systems: Central Plants**  
Tuesday, Feb 1 – 2:00 p.m. to 5:00 p.m.

**Designing Toward Net Zero Energy Commercial Buildings**  
Tuesday, Feb 1 – 2:00 p.m. to 5:00 p.m.



Get web-based training you can trust, anytime, anywhere, and earn PDHs/CEUs in the process.

- Energy Efficiency
- High-Performance Green Buildings
- Data Centers
- HVAC&R

Train around your schedule.

Save time and travel expenses.

Visit [www.ashrae-elearning.com](http://www.ashrae-elearning.com)

## ASHRAE Certification Programs

Take advantage of ASHRAE's special pencil & paper administration of our certification examinations on Wednesday Feb. 2, 2011, in conjunction with the 2011 ASHRAE Winter Conference.

- Building Energy Assessment Professional (BEAP) **NEW**
- Building Energy Modeling Professional (BEMP)
- Commissioning Process Management Professional (CPMP)
- Healthcare Facility Design Professional (HFDP)
- High-Performance Building Design Professional (HBDP)
- Operations & Performance Management Professional (OPMP)

For more info, visit [www.ashrae.org/lasvegascertification](http://www.ashrae.org/lasvegascertification)

## New Publications from ASHRAE

- Standard 189.1-2009: Standard for the Design of High-Performance Green Buildings (A Jurisdictional Compliance Option of the IGCC)*
  - Standard 189.1-2009 User's Manual (A Jurisdictional Compliance Option of the IGCC)*
  - ASHRAE GreenGuide 3<sup>rd</sup> Edition – The Design, Construction, and Operations of Sustainable Buildings*
  - ASHRAE Standard 90.1-2010: Energy Standard for Buildings Except Low-Rise Residential Buildings*
  - ANSI/ASHRAE 55-2010 – Thermal Environmental Conditions for Human Occupancy*
  - ANSI/ASHRAE 62.2-2010 – Ventilation for Acceptable Indoor Air Quality in Low-Rise Residential Buildings*
  - ANSI/ASHRAE 62.1-2010 – Ventilation for Acceptable Indoor Air Quality*
- Package:
- ANSI/ASHRAE 15-2010 – Safety Standard for Refrigeration Systems*
  - ANSI/ASHRAE 34-2010 – Designation and Classification of Refrigerants*

Visit [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) to order



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