

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



## Keeping it Cool with ASHRAE

### Special points of interest:

- > ASHRAE Regions XII CRC is Coming Up Soon! RSVP ASAP!
- > Last FWC Chapter Meeting of the Year (May 17, 2011) with Ray Patenaude talking about Building Envelopes and Pressurization (Past President's Night)



## From the Desk of the President

Have you ever had a black car? Ever had a black car with black leather and T-tops? Yeah I did that. That car was a lot of fun December through February. A truly miserable experience the rest of the year. The air conditioner had two settings. On and off. Everything in the middle was never used. You want to know where my hair went? It melted in 1997.

I was trying to find something air conditioning related to write about this month. All of you who have been the FWC president before know what this is like. After six or seven articles you kind of run out of interesting topics. But fear not, I found some air conditioning history to tell you all about.

The first air conditioning, in an automobile, was installed in 1933. It was an aftermarket item and was primarily used in limousines and high end cars. However it would be six more years before a major car manufacturer would pick up the idea. In 1939 the Packard Motor Car Company offered an air conditioning option for the whopping price of \$275. Similar to the air conditioning I mentioned above, you got two options. On or off. To turn off the air you had to open the trunk and disconnect a belt. No dials, no switches, no temperature control. The device took up half of the trunk and blew cold air from behind the rear seats. It did not catch on and was only offered for two years.

Finally in 1954 some inventive mechanical engineers with the Nash Automobile Corporation, created the first front mounted full heating and cooling unit for automobiles. The same year, General Motors, offered an engine driven, front mounted air conditioning system with dash mounted controls and air distribution as an option on Pontiacs. As you can tell, this design became the standard layout for automotive air conditioning. In 1960, only 20% of the cars manufactured came with AC. By 1969, this number had risen to 54%. In 1968 American Motors (remember the Pacer and the Gremlin?) was the first company to make air conditioning a standard option on all of their vehicles.

The Shrimp Boil was a huge success! I would like to thank Mike Costello, Joe Cox, C. Boe and Leon Boe for their efforts in pulling this one off.

Jeff Ross, FWC President (2010-2011)

### Inside this issue:

Presidential Address	1
Programs	2
Research Promotion	3
ASHRAE Online Courses	5
Upcoming CRC	9-10
Leadership Recall	13-15



## Programs

The Florida West Coast Chapter of ASHRAE is proud to have Mr. Ray Patenaude from The Holmes Agency coming to speak to our chapter on May 17<sup>th</sup> 2011 at the Columbia Restaurant in Ybor City about:

### **BUILDING ENVELOPES & BUILDING PRESSURIZATION**

Ray is a registered Professional Engineer specializing in forensic engineering of HVAC systems, moisture intrusion into buildings and microbial contamination of building environments. He has been involved with construction and building science for over 30 years. As a recognized expert in his field, Mr. Patenaude, P.E. provides professional consultation and forensic investigation in building science.

Ray specializes in the cause and origin of construction defects; building envelope assessments; HVAC failure causation analysis; energy analysis; moisture intrusion; mold growth investigations; remediation management; claims and litigation support for commercial, residential, industrial and institutional buildings.

So please join us for the last meeting of the ASHRAE season and for Past President's Night!!!

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

## What ASHRAE is Working On

### **Do Clothes Make the Man Hotter or Cooler? Role of Fashion in Thermal Comfort Studied by ASHRAE**

ATLANTA – The role of international fashions in determining how cool or hot we are is being studied by ASHRAE. It's not the impact of Gucci or Channel on our style but rather how non-western wear, such as burqas or saris, affects our thermal comfort.

Comprehensive data exists on western clothing insulation values but little research exists on non-western. Having information on attire like saris could influence the design of ventilation and air-conditioning systems to provide the best thermal comfort for occupants. "Given the growing energy needs of large nations such as India, China and Pakistan, all of which often have different clothing styles from western nations, knowing more about the impact of clothing on comfort is essential to improving ventilation and air-conditioning systems for these countries," John Stoops, head of the project monitoring subcommittee for Technical Committee 2.1, Physiology & Human Environment, which is overseeing the project, said. "The project also will look at how different fabrics and body postures and movements impact the insulation value of cloth. We expect to find that the results of non-western wear on thermal comfort will be different than that of western wear due to looser fit, long gowns and lighter materials that promote movement of air."

1504-TRP, "Extension of the Clothing Insulation Database for Standard 55 and ISO 7730 to Provide Data for Non-Western Clothing Ensembles, Including Data on the Effect of Posture and Air Movement on that Insulation," is one of 17 projects currently out for bid by ASHRAE. The deadline to submit proposals for all projects is May 16.

Results of 1504 would be of fundamental importance to both ASHRAE and the International Organization of Standardization (ISO) standards, building and building system designers and vehicle designers around the world. Specifically, it could expand the scope and reach of ASHRAE Standard 55, *Thermal Environmental Conditions for Human Occupancy*, to a worldwide audience.

BY RESBRI, ON MARCH 27TH, 2011

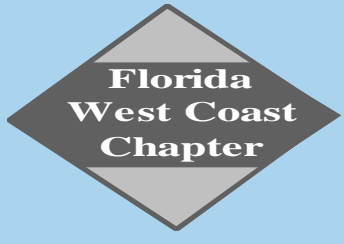
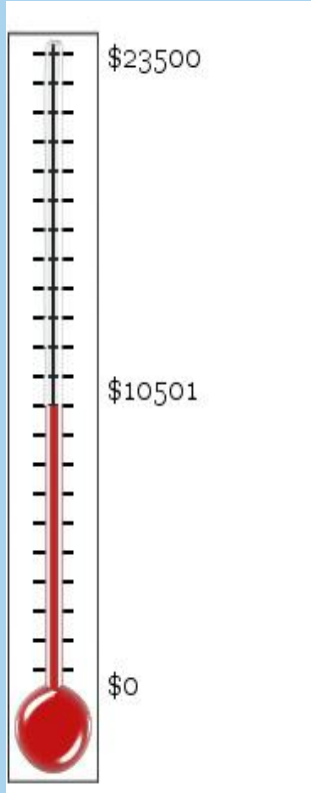
## Research Promotion

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 March 30, 2011 the Florida West Coast Chapter has collected over \$ 10,500.00, 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 [jasoncproctor@gmail.com](mailto:jasoncproctor@gmail.com).

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



## How to Contribute to ASHRAE Made Easy

# 2010-2011 ASHRAE RESEARCH Florida West Coast Chapter Contribution Form

You can help make the difference!

This industry gives all of us our livelihood. ASHRAE's research and educational programs are what keeps our industry and profession on the leading edge and assures its continued existence. Confident that you will recognize the benefits of this investment, I am asking you to help fund future HVAC&R research and development.

Together, we can all make a difference!

Amount enclosed:  \$250  \$150  \$100  \$50  Other (specify) \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Member Number (If known): \_\_\_\_\_

Mail completed form with your check, payable to ASHRAE Research to:  
Jason Proctor  
6723 Summer Cove Drive  
Riverview, FL 33578



## ASHRAE Research— Working to Improve

Residential and commercial air conditioning and refrigeration applications!

Proposed Research project, *1580-TRP, Study of Input Parameters for Risk Assessment of 2L Flammable Refrigerants in Residential Air Conditioning and Commercial Refrigeration Applications*:

Refrigerants with mild flammability, but very low global warming potential (GWP) have been recently identified which could have a significant environmental benefit in reducing global warming impact of refrigerants. For example, HFO-1234yf with a GWP of 4 has been identified as the leading candidate to replace HFC-134a in automotive air conditioning and has been found safe to use based on extensive automotive industry risk assessments. Under a new ISO-817 standard, class 2 flammable refrigerants will be divided into “2” and “2L” with 2L representing refrigerants that have mild flammability. This new classification may eventually be adopted by ASHRAE Standard 34 and HFO-1234yf would be considered Class 2L. Another low GWP refrigerant trans-1234ze also has potential to be used in some air conditioning systems which require improved high ambient temperature performance.

The objective of this project is to develop critical input data for 2L refrigerants which can be used in risk assessments for residential air conditioning, heat pumps and small commercial refrigeration applications in occupied spaces. Large supermarket racks, and sea containers could be a potential phase 2 project. Tasks will include obtaining information on leak rates and frequencies for air conditioning and small commercial refrigeration equipment, identifying potential ignition sources, determine refrigerant concentration profiles during leaks to assess when the LFL is exceeded, and conducting ignition experiments.

To read more about this project, current projects, or other proposed projects visit the ASHRAE webpage.

## Message to Donors and Non-Donors

Help us support the research of tomorrow TODAY!

Have you ever imagined this Society, or even the world without ASHRAE Research? Without the knowledge gained from Research, both would be practically unrecognizable...

How often do you reference the ASHRAE Handbook? What aspects of your job are made easier, or even possible, because of it? Well, without the support of Members like you the ASHRAE Handbook would not be as complete as it is today. [Take a look for yourself!](#)

As winter rages outside, many of us take for granted the automatic and safe warmth of our electric and gas heaters. However, without ASHRAE Research, how would we heat our homes?

Without ASHRAE Research, we would not enjoy many of the creature comforts we so often take for granted. And without your support, the research of tomorrow won't be possible! We need your support to fund the research of tomorrow TODAY! Please continue to support ASHRAE Research through your Dues and Chapter events.

For more information on Research and what is being done to improve the world around us please visit us on the web [HERE](#).

Help us fund the research of tomorrow TODAY! 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).

Contributing to ASHRAE Research is easy – give with your annual Dues, give at a Chapter meeting, give at a Chapter special event, give online [HERE](#), or send your contribution directly to ASHRAE Headquarters:

**ASHRAE Research**  
**1791 Tullie Circle, NE**  
**Atlanta, GA 30329**

## ASHRAE Online Courses

Two courses related to high-performance building design are being offered as part of ASHRAE Learning Institute's (ALI) spring online series. Twelve online instructor-led short courses run from late March through early May and are available to those interested in expanding their knowledge of the HVAC industry and keeping up to date with the latest technology and their applications. Many popular courses are offered, several of which include updated material.

Basics of High Performance Building Design, taking place April 27, focuses on the basic application of ANSI/ASHRAE/IES Standard 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings, and ANSI / ASHRAE / USGBC / IES Standard 189.1-2009, Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings, to achieve high-performance building design. The course focuses on the differences in purpose and requirements between Standards 189.1 and 90.1.

"The Basics of High Performance Building Design course will help you earn the 'three greens'," instructor Tom Lawrence, Ph.D., P.E., University of Georgia, said. "First, you will be helping the planet stay green by reducing the energy, water and materials required to build and operate a facility. Second, you will be left with a facility that will save you 'green' due to lower operating costs and more efficient operations. Finally, you will have a building that will leave its neighboring buildings 'green with envy' when they know that they have a lower market value compared to their high performance neighbor."

Advanced High Performance Building Design, May 4, focuses on advanced concepts involved in applying Standards 90.1 and 189.1 to achieve high-performance building design. More emphasis is placed on case studies to move beyond the minimum requirements of these standards.

"In many instances, building design objectives tend to regard minimum code requirements as a ceiling of quality rather than a minimum requirement," instructor Jeff Ross-Bain, P.E., ASHRAE-Certified Building Energy Modeling Professional, Ross-Bain Green Buildings, LLC, said. "However, the development of high-performance green building methods, strategies and technologies has given designers the tools to reach for energy efficiency levels in buildings that exceed these minimum requirements and, in fact, are beginning to approach net-zero-energy building status. In order to advance the performance of buildings, it is essential that the engineering community rethink 'business as usual' and begin to maximize the performance of buildings – beyond the codes. We have tools, resources and real-world examples available to help us achieve those goals. The advanced energy design course will give the attendees an insight into ways in which these principals can be integrated into practice."

Courses and dates are:

April 18	Understanding Standard 189.1 for High Performance Green Buildings
April 20	District Cooling & Heating Systems: Central Plants
April 25	Understanding Air-to-Air Energy Recovery Technologies and Applications
April 27	Basics of High Performance Building Design
May 2	Complying with Standard 90.1-2010 HVAC/Mechanical
May 4	Advanced High Performance Building Design
May 11	Complying with Standard 90.1-2010 Envelope/Lighting

The three-hour courses are taught in real-time, from 1 p.m. to 4 p.m. EDT. Either three professional development hours or American Institute of Architects learning units or 0.3 continuing education units are available for each course.

A full list of courses and registration information can be found at <http://www.ashrae.org/onlinecourses/>

### 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.

Make sure to keep those government contact emails coming in!

**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@ashrae.org) 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 813-748-9406	<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



# ASHRAE FLORIDA WEST COAST CHAPTER

MAY 17, 2011

**RAYMOND E. PATENAUDE, PE**  
COLUMBIA RESTAURANT, YBOR CITY

The Florida West Coast Chapter of ASHRAE is proud to have Mr. Ray Patenaude from The Holmes Agency coming to speak to our chapter on May 17<sup>th</sup> 2011 at the Columbia Restaurant in Ybor City about:



## BUILDING ENVELOPES & BUILDING PRESSURIZATION

Mr. Patenaude, P.E. is a former ASHRAE Vice President and Distinguished Lecturer. He currently serves the Society as Chair of TC 1.12, Moisture Management in Buildings, Chair of the Project Monitoring Sub-Committee for the new "ASHRAE Guide for Buildings in Hot and Humid Climates" and a member of Standard 100, "Energy Conservation in Existing Buildings". In addition, Mr. Patenaude, P.E. is also a member of the National Society of Professional Engineers, the National Academy of Forensic Engineers, the National Academy of Building Inspection Engineers, the National Institute of Building Sciences, the Florida Engineering Society, Association of Professional Industrial Hygienists, the American Conference of Governmental Industrial Hygienists, and the Chairman of the Board of the Certified Indoor Air Quality Professionals.

Designing buildings in the Tampa Florida area requires the integration of techniques found in the ASHRAE Guide for Buildings in Hot and Humid Climates. Mr. Patenaude, P.E. will provide a presentation on the fundamentals of building envelopes in hot and humid climates, control of outdoor ventilation air with the use of dedicated outdoor air systems and building air pressurization. These three building systems are the main cause for concern for HVAC Engineers and comprise most building failures in hot and humid areas.

So please join us for the last meeting of the ASHRAE season and for Past President's Night!!!



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

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)

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



Florida West Coast  
CHAPTER



Florida West Coast  
CHAPTER

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

### Silver \$1,000-\$ 2,499

Air Mechanical & Service Corporation  
Dan Rogers

### Bronze \$500-\$999

Advanced Automation Systems  
Michael Fucile

### 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  
Engineering Professionals

### Individual Honor Roll – Investors \$100-\$249

Al Sanchez  
Joe Souza  
Raoul Webb  
Jeffrey Ross  
Carl Lawson  
Thomas H Williams  
John Siegenthaler  
Andrew Elsberry  
Debie Horsey  
Jennifer Isenbeck  
Ray Patenaude  
Albert Reet

Murray Woodgate  
Jason Proctor  
Joe Cox  
Phillippe Jean  
John B Siegenthaler  
Robert J Barstow  
Adam Parke  
Ross Montgomery  
PJ Crespo  
Ted Hansen  
Jasper Scott  
William Smith



# Florida West Coast

CHAPTER



## CRC will take Place August 10-13th, 2011 in San Jose, Costa Rica

The Florida West Coast Chapter is very pleased to announce that we will be hosting the 2011 August Chapters Regional Conference at our Section in San Jose Costa Rica. The hotel will be in the capital of Costa Rica, but there will be opportunity to travel and experience the 12 microclimates. The country is about 200 miles wide so there is opportunity to go coast to coast, visit a volcano or extend into the clouds at 12,000 ft.



Mountainside in San Jose, Costa Rica headed to Paos Volcano

### Proposed Agenda

#### Wednesday, August 10, 2011

6:30 PM – 8:30 PM Welcome Reception

#### Thursday, August 11, 2011

10:00 AM – 6:00 PM Registration  
 8:00 AM – 11:00 AM Caucus Region XII  
 11:00 AM – 12:00 PM Executive Session/Orientation  
 12:15 PM – 2:00 PM Presidential Lunch  
 2:30 PM – 6:30 PM Technical Session  
 7:30 PM – 10:00 PM Dinner (Sponsor Rec. & Awards)  
 10:00 PM - ??? Hospitality Suite

#### Friday, August 12, 2011

8:00 AM – 6:00 PM Registration  
 8:30 AM – 12:00 PM Business Session I  
 12:15 PM – 2:00 PM Awards Lunch  
 2:15 PM – 6:00 PM Business Session II  
 3:00 PM – 6:00 PM Hospitality Suite  
 6:30 PM – 7:30 PM YEA Hospitality Hour  
 7:00 PM – 11:30 PM Dinner on Own/Groups  
 10:00 PM – ??? Hospitality Suite

#### Saturday, August 13, 2011

7:30 AM – 9:00 AM Registration  
 8:30 AM – 12:00 PM Concurrent Committee Workshops  
 12:30 PM – 5:00 PM Hospitality Suite

### Information about Costa Rica

The Republic of Costa Rica, meaning “rich coast”, is approximately 0.25% of the world’s landmass (the size of West Virginia), it contains 5% of the world’s biodiversity and almost one quarter of the country’s land is protected national parks. Even though Costa Rica abolished its Army in 1949, the democratic government is run similar to US (three branches) and has its first female President, Laura Chinchilla. About 94% of the population is European decent (whites or mestizos), the literacy rate is 94% and has consistently highly ranked throughout the world for democracy, low poverty and is #1 in the America’s for Environmental Performance. The main cash crops are bananas, pineapples and coffee. For sustainability, Costa Rica is most known as a country that will likely meet **Net Zero carbon emissions** by 2030 or sooner (the government set a goal in 2007 that net zero will be reached by the country’s 200<sup>th</sup> Anniversary in 2021). The most impressive fact is that 98% of Costa Rica’s electricity already comes from renewable energy. Some of Costa Rica’s energy sources include geothermal energy, the burning of sugarcane waste and other biomass, solar and wind energy. However, the largest source of energy is hydroelectricity — its hydroelectric dams provide more than 82% of the country’s electricity. Therefore the production of electricity via waterfalls and other water sources are very dependent on rainfall.

### Hotel—Barcelo San Jose Palacia



The **Barceló San Jose Palacia** boasts the largest, most prestigious conference center in Costa Rica. With wireless connections throughout the hotel, the Barceló San Jose Palacia provides modern solutions to increase productivity during your meetings and conventions. With our group ASHRAE rate, the expected cost of rooms will range from \$105-\$150/night. The hotel is fully equipped and the concierge is more than helpful to assist in arranging transportation, tours and recommend restaurants. The airport is about a 20-30 minute ride away.



A stunning view of the active Paos Volcano, just a short drive

# Journey to Near Zero

## Journey to Near Zero

Florida West Coast ASHRAE Chapter Hosts Region XII Chapters Regional Conference, August 2011

# Sponsorships are Needed!

*Have the Opportunity to Advertise throughout Florida, South and Central America!*

FWC ASHRAE is asking for your help with a TAX DEDUCTIBLE monetary contribution to make this event possible. All sponsors will be very well represented at the conference with their names displayed on meeting materials, directories and a banner that will be hung at advantageous spots in the hotel. Further, a custom t-shirt will be given to every attendee that will display all sponsor names (including company logos with a sponsorship of \$1,000 or more). As a sponsor you will be invited to the Sponsor Recognition and Awards dinner at the conference where you will have the opportunity to meet Society Officers and be recognized for your generosity and support. As soon as the sponsorship funds are submitted, your company name will be listed on all CRC correspondence.

**Sponsor Levels are:**

<b>EARTHLY STEWARD</b>	<b>\$5,000</b>
<b>NEAR ZERO HERO</b>	<b>\$1,500</b>
<b>SUSTAINABILITY LEADER</b>	<b>\$1,000</b>
<b>RENEWABLES ACHIEVER</b>	<b>\$500</b>
<b>GREEN GO GETTER</b>	<b>\$250</b>

There are also opportunities to provide items for gift bags.  
 If you are interested in Sponsoring this Event and receiving Sponsor Recognition and Privileges related to sponsorship, please contact:  
 Jennifer Isenbeck ([jisenbec@admin.usf.edu](mailto:jisenbec@admin.usf.edu)) or at 813-731-2203  
 Jeff Ross ([jross@sladerossinc.com](http://jross@sladerossinc.com)) or at 813-250-0488

For more information:  
[www.ashraeRegXII-crc2011.org](http://www.ashraeRegXII-crc2011.org)



Florida West Coast  
 CHAPTER





# 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.



Florida West Coast  
CHAPTER





**Your Florida West Coast Chapter invites you to attend the ASHRAE webcast on:**

**Ground Source Heat Pump Systems:  
Putting the Earth to Work for You**  
**April 21, 2011**  
**1:00 – 4:00 P.M. EDT**

Brought to you by the ASHRAE Chapter Technology Transfer Committee and hosted by your **Florida West Coast Chapter**

Hear from leading experts on how HVAC system and ground characteristics affect ground heat exchanger design, how to enhance ground source heating design system efficiency, and how to avoid design and operations pitfalls. Get the solutions to these topics and more by participating in this free webcast sponsored by ClimateMaster, Mammoth, Taco, the International Ground Source Heat Pump Association, and the ASHRAE Foundation.

**How to Participate**

- Come to Stan Weaver and Company for the hosted event at 4607 North Cortez Ave, Tampa
  - Email [pjean@stanweaver.com](mailto:pjean@stanweaver.com) or Call 813-879-0383 (Philippe or Jackie) to RSVP

**PDH Credits**

Three (3) Professional Development Hours or three (3) AIAP Learning Units may be awarded to viewers who complete the "Participant Reaction Form" by **May 5, 2011**.

**We will have forms to complete and send in at Stan Weaver And Company's office**

**The Presenters**

- **Lynn G. Bellenger, P.E.**  
ASHRAE President 2010-11  
*Partner | Pathfinder Engineers & Architects | Rochester, NY*
- **Kirk Mescher, P.E., LEED® AP**  
*Principal | CM Engineering, Inc. | Columbia, MO*
- **Mick Schwedler, P.E., LEED® AP**  
*Manager, Applications Engineering | Trane Company | La Crosse, WI*
- **Jeff Spittle, Ph.D., P.E.**  
*Professor | Oklahoma State University | Stillwater, OK*

**Registration**

**There is no fee for registration.**



**Florida West Coast**  
CHAPTER



**ASHRAE Chapter History  
Leadership Recall Interview  
Florida West Coast Chapter**

This is an official leadership recall account of Jennifer Isenbeck as written by Jennifer herself

**Biographical Sketch**

I was born in Milwaukee, Wisconsin on February 22, 1973. My birth was premature due to my mom slipping on the ice and breaking her water. All was okay; I just spent some time in the incubator. I have an older brother, Rick, and a step-sister, Jennifer and step-brother Steven. Most of my first 18 years was spent living in the suburbs of Milwaukee, with a brief two year stint living near the shores of the Jersey coast in Bricktown. I graduated from Germantown High School in 1991. In school, I was on the diving team participated in drama, FBLA (Future Business Leaders of America) and Forensics. I decided to follow my brother and attend the University of South Florida from 1991 through 1996. My major was Chemical Engineering. In addition to my studies, I participated in numerous student groups and often held leadership positions. I was homecoming chair in 1996 with a \$100,000 budget and also President of the USF Ambassadors. In fall of 1999, I decided to return to school and obtain an MBA with emphasis in Finance, Entrepreneurship and Leadership. My first job was with Engineering Matrix, Inc. a local MEP consulting firm. Since then I have worked for several consulting firms: Engineering Professionals, Inc., Affiliated Engineers, Inc., Kenyon and Partners, Inc. Currently I'm employed by the University of South Florida as a Mechanical Engineer for the Facilities Planning and Construction Department.

**Interests and Hobbies**

I enjoy watching and participating in sports. Currently I compete in triathlons (while the times aren't fast to place, the challenge and camaraderie is worth it). So in order to train for the races, I also run, swim and bike separately as well, including mountain biking. I have also played a variety of coed sports such as flag football, softball, kickball and beach volleyball. To add to the outdoors, I also enjoy golf. When it is rainy, too cold or I'm just plain tired, I enjoy reading, mostly action thrillers. If there is time, I've been known to experiment with cooking and wine sampling.

**Reasons for entering the Engineering and HVAC Industry**

With a background in Chemical Engineering, thermodynamics has always been a strong point for me. I have just narrowed down my chemicals to two specific ones: air and water. I started the University already interested in engineering; math and science were my strong subjects in high school. When it was time to schedule my second semester classes, I wanted to take Chemistry II Lab. My advisor said only chemical and mechanical engineers had to take that course. At that point, I decided chemical engineering was the way to go. When I graduated, I was hired by a consulting firm that trained me in HVAC.

My first job was Engineering Matrix, Inc. in the fall of 1996. It led me down a path into MEP consulting engineering the major challenges I was facing at the time was Competition.

In the mid-90s the Tampa Bay area was flooded with MEP consulting firms that were all spin-offs from some of the original companies, I remember many of the Principals came from Delta Engineering. Also, the time of Energy Audits was complete and many consultants were all competing for the same pool of school contracts, the economy was right before the booming of the late 90's.





I first got involved in ASHRAE and the local Chapter when I attended the FWC Shrimp Boil in 1998. Don Crosby was very active in ASHRAE back then and he was handing out flyers around the office. Once I started working at Engineering Professionals, Inc. Gary Stenlund was very instrumental in my ASHRAE involvement. He immediately encouraged membership and involvement. When he was President of FWC, I was newsletter editor. We had a great time with that. To this day, I think Gary had some of the best articles, of course with a great picture to match!

#### **Involvement with ASHRAE and the Florida West Coast Chapter**

Once I became a member and got involved, it was only a matter of time. My election date was October 31, 1999. It started with newsletter, then student activities when John Wells, III was president, next thing I knew, I was on the Board, and moving quickly, secretary, treasurer, 2nd VP – Membership, 1st VP – Research, President Elect – Programs/CTTC and finally President. Currently I am RVC – Membership (2008).

As I mentioned before at that time when I first started in engineering, competition was fierce. Now a bit more than ten years later, we are in a mild recession. The economy is terrible, fuel prices are rising, the country was still at war and a presidential election was right around the corner. People are begging for change, but it is hard to put a finger on what it will cost. If there is a positive, the high fuel costs (both in gas and power) are causing building owners to be more conscious of sustainability, equipment to be more efficient than it has ever been before. Just looking at the recent ASHRAE themes, "Greater Efficiency Today: Blue Skies Tomorrow" and "Maintain to Sustain". See the article I wrote at end of this FWC Leadership Recall.

#### **Major Issues facing the Industry**

At the time of this writing the following facts highlight the status of the industry:

- 39% of the Primary Energy used in the U.S.
- More than 25% of this energy is used for HVAC
- U.S. Buildings produce 9.8% of Total Global Carbon Dioxide Emissions

These are some staggering figures, because of this, ASHRAE has been getting more and more involved with groups such as the USGBC (United States Green Building Council) not only to explain the importance of ASHRAE standards used in current building codes, but to explain why it is so important and ASHRAE's 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. Also even though it's still in review, ASHRAE Standard 189 - Standard for the Design of High Performance Green Buildings except for Low-Rise Residential Buildings is being written that it can be interpreted as code, this will help counties, municipalities and states encourage high performance design.

#### **People who stand out as major influences**

The list people that have stood out to influence me in is endless. The few I've mentioned above, Gary Stenlund, John Wells. Others that have really given me an attah-girl are Ross Montgomery (to me – he is Mr. ASHRAE), Rob Risley. One of the up and comers that says a lot of "WOW" is Jason Alphonso from Central Florida. He was just working on the side as a drafter when I met him, trying to finish his Masters degree at UF. Fast forward a few years later and he took a small grass roots group of students and young ASHRAE members into annual contenders for the Student Design competition to being an instrumental part in the start-up of YEA – Young Engineers in ASHRAE. I also feel fortunate to see the hard work of some of the Delegates and Alternates at CRC. I enjoyed learning from Mike Dillard and everything he did to make Central Florida such a strong chapter.

#### **Events Changing ASHRAE**

Once again, due to economy and the new focus on sustainability, ASHRAE is becoming more of a household name as it relates to LEED. Finally, architects are taking a moment to learn about ASHRAE and its depth of knowledge.

If your product in the HVAC industry is not ASHRAE or ARI endorsed, or even documented, then there is little success available to you. The technical committees of ASHRAE are very thorough on product development and research, they have to be.





**Advice to young engineers entering the field**

First, open your mind, ask questions, questions that start with "how" and "why". Of course, join ASHRAE, but more importantly, attend the meetings. The presentations are only an hour, and they touch on a variety of topics, take that opportunity to learn something new

**Humorous Events**

Too many to tell, or at least they will need to be PG rated. Seriously, my friends I have made in ASHRAE have been very important to me over the past ten years. We got pictures from Shrimp Boil with people wearing parrots on their head, engineer's banquets where I found a "secret bar" and many a CRC where friends were made in the hospitality suite. It's just exciting to think there is more to come!

Here is a relevant article I wrote for the local chapter newsletter:

**Keeping it Cool with ASHRAE**

*That's my personal selected theme is for this year. There's more to this statement other than the obvious. GLOBAL WARMING. Just recently, former Vice President Al Gore and the Intergovernmental Panel on Climate Change won the 2007 Nobel Peace Prize. Gore has quoted, "The climate crisis is not a political issue, it is a moral and spiritual challenge to all of humanity." This week, the NBC Today show has continued a focus on climate change as well, pointing out not only the changes to the environment in Antarctica, the Arctic and the Equator, but nature's beauty that exists there. This is also an issue that no longer causes a divide in political parties. In late September Republican Governor of Florida Charlie Crist and former Democratic President Bill Clinton announced that Florida will be part of a \$2.4 billion Clean Energy Program that will produce a major Solar Power Plant associated with FPL in Jupiter, FL. Worldwide, U.S. was part of a unanimous vote to accelerate portions of the Montreal Protocol which focuses on reducing the effects of Global Warming. However, it's not all gloom and doom. About 18 months ago I visited Cozumel, Mexico. The island had been severely wiped out by the hurricane season six months prior. Last week I visited again. The island had been rebuilt and was thriving. If science and engineering can rebuild the effects of one of Mother Nature's most ferocious disasters, science and engineering can also help with man's destruction. A couple of technologies are being explored to prevent the excess carbon dioxide build-up that causes global warming as well as other solar protection devices. Solar umbrellas are thin discs that could be launched into space to protect the Earth from the Sun's rays as the ozone becomes depleted. Carbon capture would capture carbon dioxide from the largest emission producers and dissolve or pool it into the oceans. Another concept is the Genital Effect in which iron dust would cause algae blooms that would absorb excess carbon dioxide in the atmosphere. The Volcanic dust method would add tons of sulfates to the stratosphere to mimic the cooling effects of volcanic eruption. These methods all seem extreme, have extraordinary costs and could potential harm other ecosystems. There are other less extreme methods – SUSTAINABILITY. Sustainability does not only focus on the environmental impact, but it has two other components that are not as obvious. It must be financially feasible to ensure Governmental and corporate backing and it must have a social impact that makes it acceptable and endorsed by humanity. Last month I participated on a panel regarding Sustainability. I was fortunate that I could speak not only about ASHRAE Standards 62.1 and 90.1, but I was pleased to announce the collaborative effort of ASHRAE, IESNA and USGBC to produce ASHRAE Standard 189 - Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings. We as members of ASHRAE have opportunities to participate in the exploration of sustainable efforts as well as incorporate it into our designs, equipment selection and education of our constituents. Let's keep it Cool with ASHRAE!*



# Florida West Coast

CHAPTER