

2016

May

2016 Charleston ASHRAE Spring Golf Tournament

When: Friday May 6th

Where: Charleston
Municipal Golf Course on
James Island

**See flyer attached
for details on how
to sign up!**

Slate of New Officers

- President Megan Rooney
- V. President Philip Runyon
- Secretary Jacob Yount
- Treasurer Victor Fallon
- BOG Steve Marek
- BOG Pete Conroy
- BOG Randy Jones



Next Meeting

Tuesday, May 10th

Ms. Rose's in West Ashley

Lunch and Tech Program 12:00 PM (noon)

\$25/person

[REGISTER ONLINE](#)

Updates and News:

From GGAC

The South Carolina Legislature recently introduced **Senate Bill 1164**, to amend section 6-9-5 of the 1976 code, relating to Building Codes. One section of this legislation (**6-9-10**) will DELETE the enforcement of the energy code and any provisions relating to energy efficiency. Also, **section 6-9-40** extends the adoption timeframe of current codes and forms a new review committee, which will make code adoption recommendations to the Building Codes Council and require a 2/3 majority of the Council to override the committee's recommendations. **Section 6-9-50** allows the Building Codes Council to IGNORE all national codes (what would we use then?).

Dennis Knight, Randy Jones and I attended a stakeholders meeting on the behalf of ASHRAE to voice our organization's opposition to this legislation. Also in attendance were representatives from SC Firefighters, ICC, NEMA, Insurance companies, Local code officials, Mechanical Contractors Association of SC, and others, ALL OPPOSING this bill. The bill can be found at the following link:

<http://www.scstatehouse.gov/billsearch.php> Enter Bill# 1164.

ASHRAE is committed to promoting energy efficiency in all new construction and renovation work, and this legislation can have a profound impact on the future of energy efficiency in our state. We encourage all ASHRAE members to contact your state Senate members to voice your opposition to senate bill 1164.

Feel free to contact Dennis, Randy or me if you need any additional information.

Pete Conroy
GGAC



Chapter Sponsors

Thank you for your sponsorship. If you would like to support the chapter, please contact the Research Promotion Chair.

Victaulic
Raypack
Cullum Mechanical
Chapman Company
Hoffman & Hoffman, Inc.

ASHRAE Research Investors

Platinum Level Donors (\$800 up)

James M. Pleasants Inc.
Santee Cooper
The Chapman Company
Ron Runyon

Silver Level Donors (\$300)

Randy Jones
Dennis Knight
Del Laquiere

Bronze Level Donors (\$150)

Wall of Honor—Individual Donations of \$100 or more

Bo Nutting, Steve Marek, Chris Constantine, Megan Rooney, Victor Fallon, Larry Elkin, Chris Wigginton



CTT Corner— Review of April Presentation by Dan Int-Hout

For more information about this presentation, contact Gene Brown, CTTC.

At our April meeting Dan Int-Hout gave an excellent presentation: “You Can’t Afford Discomfort”. Three things which must be considered are: first cost; operating cost and occupant salary cost. Today the first cost of HVAC is about \$35/SF. In Europe the cost is about \$100/SF. For a typical office the cost to heat and cool is about \$2/SF/YR. Salaries of employees can be \$200-500/SF/YR. Healthcare must be added onto this. Dan’s degree is in biology. There is hard data correlating ventilation with student test scores and with absenteeism. Occupant dissatisfaction with the building thermal environment is the number one reason for non-renewal of leases.

In order to control humidity and maintain ventilation requirements HVAC is often allowed to run continuously. The buildings are therefore over cooled. Buildings complying with EBTR (Emergency Building Temperature Restrictions, 68F/78F winter/summer) used 20% more energy. With no air motion there was still 90% occupant satisfaction. For a good environment, background sound masking should be provided. Open ceilings result in poor acoustics. Full acoustical ceilings should be provided.

The design engineer should tell the installing contractor to adjust the direction of throw for the slot diffuser. This should be done before the TAB contractor makes the first measurement. In one courtroom it took 55 minutes for heat to fill the space from the ceiling downward. The thermostat could not respond until the heat reached the lower portion of the room. Interior heat load is often assumed to be 1 BTUH/SF. The actual load is closer to 0.3 BTUH/SF. You can save energy where the OA enters the building. After that you must move the air around efficiently. The highest demand is at the window. A return slot should be placed above the window. Leave a 1-inch gap around the acoustical ceiling at building perimeter. This lets the warmer air rise.

ASHRAE Standard 70 is Method of Testing the Performance of Air Outlets and Air Inlets. Add 5 to the NC data because installations do not usually have a straight duct feeding the diffuser. Using his Android with a special app, Dan measured an NC of 40 from the location where he was giving his presentation. 4dBA is about NC 31. 700 PPM of CO₂ has a detectable effect on cognitive ability. 1100 PPM has a severe effect. With a dedicated outdoor air system (DOAS) keep the air as cold and dry as possible. Don’t pre-heat it. Even in Charleston economizers can pay off.

Presidential Corner— May 2016

Well it is about that time, another year of ASHRAE is about to come to a close, but first we must elect our new slate of officers at the April Meeting. Please see our updated line up and come out and vote or bring a write in, all are appreciated.

We have our June Social and installation of officers set up for the Second Tuesday in June at our usual location, this year it will be a very casual theme with a low country boil and yard games, so bring your fun.

I would like to really thank all the Officers and the BOG for a great job this year; it has been a smooth sail.

And like it or not it looks like we will reach PAR in all PAOE categories, GREAT JOB.

This Friday, May 6th we will be holding our Spring Golfing event and Fund Raiser at the Infamous Charleston Muni, this is the one you do not want to miss. Please contact Chris Constantine if you would like to attend or maybe just make a little Hole Sponsor Donation.

Bring a friend to the golf outing, we are always looking for new members this week so please bring a friend to the meeting and let's sign them up.

Thanks again everyone for a great year, have a good day,

Steve Marek

President ASHRAE Charleston Chapter

<https://charlestonashraechapter.wildapricot.org/>

ASHARE Charleston Chapter Presidents- 45th Year Chartered on April 14, 1971 (List as of 6/16)

1971. F.A. Bailey, III (acting) (Passed Away)	1997-1998 Don Tate
1972. F.A. Bailey III	1998-1999 Dick Trent
1973. Clyde B. Poplin, Jr. (Passed Away)	2000. Michael Weeks
1974. Thomas Saunders	2001. M. Dennis Knight
1975. Ivan S. Valdes	2002. David Tomayko
1976. Furman R. Cullum	2003. Steve Marek
1977. Robert Townsend Passed Away	2004. Charles Hipp III
1978. George B. Rast (Passed Away May 10, 2015)	2005. Chris Crane
1979. R. Al. Jones	2006. Bo Nutting
1980. Melvin D. Bundy	2007. Bo Nutting
1982. John C. Powell	2007-2008 Phil Garc'es
1983. John C. Clayton (Passed Away)	2008-2009 Rob Turner
1984. James M. Bailey	2009-2010 Pete Conroy
1985. Bill Strunk	2010-2011 Brian Keiser
1986. Dave Astle	2011-2012 Eric Crawford (Passed Away)
1987. Danny McKay	2012-2013 Mike Cladakis
1988. Edgar A. Fripp	2013-2014 Chris Constantine
1989. M. Dennis Knight	2014-2015 Austin Jones
1990. Larry Michel	2015-2016 Steve Marek
1991. F. Joseph Fisher	
1992. Brandt Williams	
1993. Dave Phelps	
1994. Rudy Cullum	
1995. Bill Knight	
1995-1996 Ron Runyon	
1996-1997 Ron Runyon	



May Meeting Technical Presentation

Chilled Beams — Mr. Ryan Ruark

May Presenter Biography:

Ryan Ruark
Regional Sales Manager
DADANCO

Ryan Ruark is a Regional Sales Manager of DADANCO, a manufacturer of chilled beams and perimeter induction units. He has over 11 years experience in the design and selection of various air, water, and gas HVAC equipment. He has worked in the chilled beam market for the past 2 years.

In 2013 Ryan joined Swegon North America, a manufacturer of air distribution products and air/water systems. Ryan called on various Swegon Representatives throughout the country. Ryan currently lives in Hastings MN where he has a home office.

Ryan earned a Bachelors Degree in Business Administration with an emphasis in Information Technology.

Chapter Officers

PRESIDENT—Steve Marek

Phone: 534-6264
stevemarek.pe@gmail.com

VICE PRESIDENT—Megan Rooney

Phone: 849-1141
mrooney@dwginc.com

SECRETARY—Chris Wigginton

Phone: 580-3769
chris@technika-design.com

TREASURER—Victor Fallon

Phone: 971-9639
vfallon19@gmail.com

BOG— Austin Jones, Chris Constantine, Randy Jones

Chapter Meetings

September— Tuesday 9/8
October—Tuesday 10/13
November—Tuesday 11/10
December—Tuesday 12/8
January—Tuesday 1/12
February—Tuesday 2/9
March—Tuesday 3/8
April—Tuesday 4/12
May—Tuesday 5/10
June—Tuesday 6/14

Membership
YEA!
Donor Recognition
Annual Oyster Roast
Research Promotion
History Appreciation
CTTC
History, YEA, & Membership
GGAC
Annual Summer Social and Induction of Officers



Good Day GGAC,

The US Senate has passed the Energy Policy Modernization Act (EPMA) by a vote of 85 to 12! The No's are Senators Boozman (R-AR), Cotton (R-AR), Lankford (R-OK), Lee (R-UT), Paul (R-KY), Perdue (R-GA), Rubio (R-FL), Sasse (R-NE), Scott (R-SC), Sessions (R-AL), Shelby (R-AL), and Toomey (R-PA). The last time such legislation passed was in 2007.

This bill contains none of the building energy codes provisions we oppose and only includes those we support.

The following amendments were agreed to:

Isakson amend #3202 (SAVE Act). The amendment is agreed to by a vote of 66-31– ASHRAE supported
Murkowski amend #3234 (Resources title), as modified. The amendment is agreed to by a vote of 97-0
Burr amend #3175 (Corolla Wild Horses), as modified. The amendment is agreed to by Voice Vote.
Cassidy amend #2954 (Maximize SPR Sale Revenue). The amendment is agreed to by Voice Vote.

The following amendments were agreed to en bloc by voice vote:

Gillibrand amend #3004 (Disaster relief efficient appliances) – ASHRAE supported

Udall amend #3221 (Water sense) – ASHRAE supported

Cantwell amend #3276 (Striking certain provisions)
Klobuchar amend #3302 (Modifying a provision), as modified
Flake amend #3055 (WAPA Pilot Project)
Flake amend #3050 (DOE Grants Information)
Hatch amend #3237 (Internet Auctions)
Murkowski amend #3308 (Denali and gasoline)
Heller amend #3286 (PLREDA), as modified
Vitter amend #3075 (Well control small business)
Portman amend #3168 (EPS)
Shaheen amend #3292 (Waste heat and CHP), as modified
Heinrich amend #3155 (Minority-serving institutions)
Manchin amend #3270 (Carbon sequestration program)
Cantwell amend #3313 (SOS Accelerating Energy Innovation), as modified
Cantwell amend #3214 (DOE Emergency Response)
Vitter amend #3266 (Helicopter fuel)
Sullivan amend #3310 (Survey correction Swan Lake)
Heinrich amend #3317 (Lab-directed R&D cost allocation)
Vitter amend #3265 (Maritime workforce), as modified
Kaine amend #3012 (Rockingham County)
Alexander amend #3290 (Batteries)
Warner amend #3233 (Administrative exchange for GW Parkway), as modified
Thune amend #3239 (High-energy physics subcommittee)
Coons amend #3203 (Study cost-share waivers)
Portman amend #3309 (NPS Centennial), as modified
Flake amend #3229 (Solar avian impact study)
Inhofe amend #3251 (Natural gas vehicles)
Murkowski amend # 2963 (RIS fix)

This is a significant win for ASHRAE, our members, and many partners. Congratulations to everyone for your tireless efforts over the years!! The following quote from ASHRAE President David Underwood is expected to be posted to the US Senate Energy & Natural Resources Committee website in the near future:

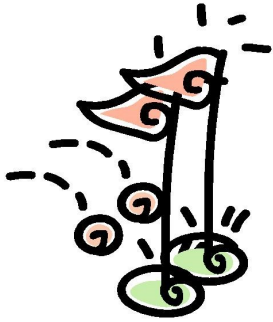
“The passage of the Energy Policy Modernization Act demonstrates the power of persistent bipartisan leadership by many leaders throughout the Senate. Each of these Senators understand the need for reform and the dangers that lie ahead if we do not change,” said ASHRAE President David Underwood. “This accomplishment is shared by hundreds of stakeholders who have connected with Members of Congress, helping them understand the complexities and likely impacts of legislation on the building and many other industries. ASHRAE congratulates the Senate on this accomplishment and stands ready to assist as leaders in both Chambers work to produce a final bill that the President can sign, and which truly advances the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world.”

The path forward is clear but rocky. House and Senate Leadership will soon appoint Members of Congress to serve on a conference committee that will produce a final compromise bill that merges the EPMA (S.2012) with the North American Energy Security and Infrastructure Act (H.R.8). This final bill will then receive a final up or down vote in both the House and Senate, before being sent to US President Barack Obama for his signature or veto.

Our greatest concern is that the harmful building energy codes language in H.R.8 makes it into the final bill. Thankfully, Fortune is in our corner. US President Obama's earlier veto threat on H.R.8 cited the bill's building energy codes provisions as one of his main problems with the legislation, and I have been assured by senior Energy & Natural Resources Committee staff that the building energy codes provisions that ASHRAE supports in the Senate bill are non-negotiable. While nothing is certain, this means that it is unlikely the codes provisions we oppose will make it into law, and our current activities and operations will be protected. That said, I'll be in close touch with folks on the Hill and will likely reach out to some of you for assistance in identifying key constituents of the conferees (once appointed) that can effectively convey our messages and recommendations to the key players.

I'm happy to answer any questions you may have.

Best regards,
Mark



ASHRAE GOLF

CHARLESTON CHAPTER'S "SPRING 2016 RESOURCE PROMOTION"

CAPTAIN'S CHOICE GOLF TOURNAMENT

FRIDAY, May 6th, 2016

12:00 PM LUNCH SERVED

1:00 PM SHOTGUN START

CHARLESTON MUNICIPAL GOLF COURSE

2110 Maybank Highway, Charleston, SC 29412

(843) 795-6517

\$75.00 includes GOLF, CART, FOOD, BEVERAGES, and PRIZES!!!!

Bring your own team or we can assign you to one.

Player:

Handicap :

Player:

Handicap :

Player:

Handicap :

Player:

Handicap :

If you do not list your handicap you will be listed as a Scratch Golfer!

Contact: Chris Constantine: 843-518-0319

cconstantine@constantineengineering.com

SPONSORSHIP LEVEL DESCRIPTION

PLATINUM SPONSOR

Same as GOLD except the one Company which donates the most to the Charleston Chapter Campaign will receive recognition as a Platinum Sponsor for this year's Campaign.

GOLD LEVEL

- Company name will be prominently displayed at ALL Chapter activities, i.e. Chapter Meetings, Golf Outing (as a hole sponsor), Technical Seminars.
- (2) Spots at all Research Promotion activities including the fall and spring golf tournaments
- Special recognition in publications including the *ASHRAE Insights and Monthly acknowledgement in The Charleston "Gee Chee" Chapter Newsletter*.
- Hole Sponsor in the Chapter Research Promotion Golf Tournaments
- Honor Roll Research Donor recognition in Chapter Newsletter (\$ 800 Contribution)
- Sponsor of Engineering Week Activities

SILVER LEVEL

- Hole Sponsor for the Chapter Research Promotion Golf Tournaments
- Honor Roll Research Donor recognition in Chapter Newsletter (\$ 500 Contribution)
- Special recognition in publications including the *ASHRAE Insights and Monthly acknowledgement in The Charleston "Gee Chee" Chapter Newsletter*.
- Sponsor of Engineering Week Activities

BRONZE LEVEL

- Hole Sponsor in the Chapter Research Promotion Golf Tournaments
- Honor Roll Research Donor recognition in Chapter Newsletter (\$ 300 Contribution)
- Special recognition in publications including the *ASHRAE Insights and Monthly acknowledgement in The Charleston "Gee Chee" Chapter Newsletter*.

HONOR ROLL LEVEL

- Honor Roll Research Donor recognition in Chapter Newsletter (\$ 150 Contribution)
- Special recognition in publications including the *ASHRAE Insights and Monthly acknowledgement in The Charleston "Gee Chee" Chapter Newsletter*.
- Chapter Meeting sponsors are also available recognition on front page of Chapter Newsletter and recognition at the meeting (ADD \$150)

ASHRAE CHAPTER SPONSORSHIP
REGION IV

CHARLESTON CHAPTER
2015 - 2016 FISCAL YEAR

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SPONSORSHIP LEVELS:	GOLD	\$1,000	_____
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	BRONZE	\$ 300	_____
	HONOR	\$ 150	_____

CHAPTER MEETING SPONSOR ADD \$150

PLEASE EMAIL COMPLETED FORM TO:
CHRIS CONSTANTINE

cconstantine@constantineengineering.com