

## Upcoming Event Excitement!

We have a lot of exciting  
events around the corner!

Dec. 9th:  
**Sustainability  
Project!**

Dec. 12th:  
**Annual  
Winter Oyster  
Roast Social!**



## Next Meeting Tuesday, January 9th

Harbor Breeze at Patriots Point, Mt. Pleasant

BOG Meeting 5:00-5:30

Happy Hour 5:30-6:00

Chapter Meeting/ Dinner 6:00-7:00

\$30/person

[REGISTER ONLINE](#)

## Presidential Corner by Philip Runyon

We hope everyone has enjoyed the fall ASHRAE meetings and we look forward to more great presentations in 2018. December is a social event so there is no technical presentation, just a time for us all to get together and enjoy the winter weather with some great oysters & cocktails! We hope everyone can make it to this year's event at Frothy Beard on Dec 12th. Also please try to attend the sustainability project on Dec 9th if available. More details are in the newsletter below and if you have any questions about this feel free to contact anyone on the board.

Looking ahead to January, we will be setting up a Myrtle Beach sectional meeting on January 10th. Be on the lookout for more details to come on this event. Anyone that has interest in the Myrtle Beach territory would be welcome to attend and help spreading the word is greatly appreciated. It will be the same presenter as will be at our regularly scheduled Charleston meeting on January 9th, Jonathan Jackson from LG speaking on ASHRAE Standard 15, Safety Standard for Refrigeration Systems and Designation and Classification of Refrigerants.

See you all Dec 12th!

Philip Runyon



## ASHRAE Research Investors

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

### Corporate Donors (\$1,000+)

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Randy Jones

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Pete Conroy

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Mariah Schwartz



## CTTC Corner

For more information about this column, contact Gene Brown ([gene3380@gmail.com](mailto:gene3380@gmail.com)).

At our November meeting Megan Rooney gave us some interesting comments on her technical committee, TC 9.6, Healthcare Facilities. After first joining, an individual will be a non-corresponding member. The next step is to become a voting member. TC 9.6 only conducts 2 conference calls per year. Some committees have more. Chris Muller gave an outstanding presentation: "Filtration and Air Cleaning in Sustaining Acceptable IAQ". Basically the goal is to reduce outside air intake and maintain indoor air quality. Air cleaning in lieu of ventilating has been around since the 70's. There has been a lack of documentation. ASHRAE 62 allows use of prescriptive method or IAQ procedure. If the outside air is above the national level for ozone and particulates it must be cleaned before it is brought in. This is the case in half of the country. ASHRAE 62 is written in code language so that it may be included in the mechanical codes.

For some applications air intakes are designed to be resistant to weapons of mass destruction.

Makeup air is not fresh air, it is outside air.

ASHRAE in Atlanta installed MERV 8 and MERV 13 filters. These were not adequate for cleaning the air but the decision was made not to install the better system unless a donation could be obtained.

In Southeast Asia the mortality of children has increased by 500 % due to air contamination.

One slide in the presentation showed soot on a roof from traffic on the adjacent interstate.

There was a field study of 7 types of buildings with enhanced cleaning systems. The study acquired performance data of filtration and cleaning systems and determination of contaminants of concern. Each site was evaluated for air quality and contaminants including particulates and microbial contamination. Operational cost savings and payback at 11 of 15 sites were examined. Particulate content per cubic foot was broken down by particle size.

In 1982 a CO2 monitor cost approximately \$10,000. Now they are available for a couple of hundred dollars. CO2 does not indicate IAQ but it reflects occupancy.

One site was found to have an air intake by a parking garage. Another had building exhausts aimed at the intake. At one site it was found to be effective to clean the toilet exhaust and return the air into the building.

One hotel had 2 filtration/air-cleaning (FAC) systems of 6,000 CFM each.

Combination chemical and particulate filters are used.

Particulates and VOC content were reduced by 50% to 71% for buildings in the study.

Gas phase filters remove 100% of ozone.

A sports arena reduced OA and reduced chiller capacity by 2300 tons. A savings of \$1,347,000 per year resulted. The IAQ procedure is recommended (1) where OA is hot and humid; (2) where ozone and SO2 are problems; (3) enhanced air cleaning is already used; (4) Contaminants of Concern (CoC's) are present at elevated levels, including formaldehyde, radon and CO. (5) Areas require pressurization or 100% exhaust; (6) if heat or cooling load is at or near 100% of existing equipment capacity.

Sometimes you can go around the engineer and get an agreement with the building owner.

Now the IAQ procedure can be used with LEED buildings. Previously this was not allowed.

Less exposure to polluted OA reduces latent load on equipment and improves system cleanliness.

On another topic, members are encouraged to obtain ASHRAE certifications. Certifications available are:

Building Commissioning Professional BCxP);

Building Energy Assessment Professional (BEAP);

Building Energy Modeling Professional (BEMP); and

High-Performance Building Design Professional (HBDP).



## RP Corner:

Please come out to our Winter Oyster Roast and help me recognize last year's donors.

Half way there, keep your donations coming in; please give me a call with any questions.

Another great RP Year in Charleston.

Thanks everyone and see you soon,

Steve Marek

RP Chairman Charleston Chapter

## GGAC Corner:

For those of you doing work in Georgia, there is legislation pending concerning the adoption of the 2015 IECC as of 1/1/2019. Something to keep in mind as you are planning designs in Georgia.

### **Georgia State Codes Advisory Committee Delays Adoption of Building Energy Codes**

The 2015 IECC Task Force was to present the Final Report of the Georgia State Supplements and Amendments for approval of the State Codes Advisory Committee held on November 16. The [final report](#) was published on September 21, 2017. A member of the SCAC motioned for a 3-month delay of approval to the February meeting (anticipated February 28, 2018) to allow for concerns/comments/suggestions to be submitted by February 1, 2018. The Task Force Chair and Vice Chair pushed for adoption at the November meeting, as the trade associations had already worked out many compromises, and further delays make the path to full adoption on January 1, 2019 more difficult. Once approved by the SCAC, the Georgia State Supplements and Amendments must go before the Department of Community Affairs, and then the state legislature (the normal legislative session will close in late March 2018). This delay could push back approval of the new codes for a least a year, depending on how quickly that can be reviewed by the Georgia Legislature. To watch for the announcement of the February meeting, go to the Department of Community Affairs [website](#).

Pete Conroy

GGAC Chair



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# 2017-2018 Events

December 9th, 2017 **ASHRAE Charleston — Sustainability Project: DNR's South Carolina Oyster Restoration and Enhancement (SCORE) Program @ 217 Fort Johnson Rd, Charleston SC 29412 from 9:30 — 11:30 AM**

December 12th, 2017 **Annual Winter Oyster Roast Social @ Frothy Beard Brewery Company 6:00 PM**

January 9th, 2018 **Meeting @ Harbor Breeze— [ASHRAE Standard 15, Safety Standard for Refrigeration Systems and Designation and Classification of Refrigerants](#)**

January 10th, 2018 **Myrtle Beach Sectional Meeting — [ASHRAE Standard 15, Safety Standard for Refrigeration Systems and Designation and Classification of Refrigerants](#)**

February 13th, 2018 **Meeting @ Harbor Breeze— [Roundtable Discussion \(Codes, Coordination, etc.\)](#)**

March 13th, 2018 **Lunch Meeting @ Harbor Breeze— [Passion and Performance](#)**

April 10th, 2018 **Meeting @ Harbor Breeze— [TBD](#)**

May 8th, 2018 **Meeting @ Harbor Breeze— [TBD](#)**

June 12th, 2018 **Summer Low Country Boil Social @ Harbor Breeze @ TBD**





# Winter Sustainability Activity

Join us volunteering with DNR's South Carolina Oyster Restoration (SCORE) Program prep bags of oyster shells for building reefs next year.

Where:  
217 Fort Johnson  
Road  
Charleston, SC 29412

Time:  
9:30a to 11:30a

Date:  
Saturday,  
December 9th



RSVP: Online!

[www.charlestonashraechapter.wildapricot.org](http://www.charlestonashraechapter.wildapricot.org)

Note: Wear close toed shoes and clothes that can get dirty.