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2018 October

MONTHLY NEWSLETTER FOR THE REGION 4 CHARLESTON CHAPTER 113 OF ASHRAE MONTHLY NEWSLETTER FOR THE REGION 4 CHAPTER 113 OF ASHRAE MONTHLY NEWSLETTER FOR THE RE



Next Meeting Tuesday, October 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

Upcoming Event

We have a lot of exciting events around the corner!

Fall Golf Outing— Date TBD

Sustainability Activity – Date TBD

October 9th Meeting—Donor Recognition Night

Energy in Action: The South Carolina State Energy Plan

OFFICE OF REGULATORY STAFF

Presentation Summary:

The South Carolina Energy Plan was a collaborative effort started in 2016. Through a collaborative effort, over 80 recommendations for the state's energy future were included in the plan ranging from integrated resource planning to environmental justice concerns. Several study committees have been spawned as a result of the plan and the discussions are continuing to this day, this presentation will present an overview of the State Energy Plan and its relation to energy efficiency and ASHRAE's organizational mission.

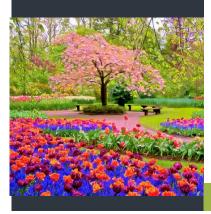
Please visit http://energy.sc.gov/energyplan for more information regarding the plan.

Speaker:

Conn Fraser

Bio: Conn Fraser has been with the South Carolina Energy Office since late 2015 and is a member of the technical assistance team. He assists in various endeavors related to the built environment including green building and performance contracting.

He has an Environmental Science background with a focus in energy management and energy efficiency and assisted with the South Carolina Energy Plan's initial planning meetings and energy codes study committee.



ASHRAE Research Investors

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

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Randy Jones



CTTC Corner

For more information about this column, contact **Gene Brown** (gene3380@gmail.com).

At our September meeting Kathleen Owen gave an outstanding presentation on ASHRAE RP-1360. The RP is entitled: -- How Do Pressure Drop, Efficiency, Weight Gain, and Loaded Dust Composition Change Throughout Filter Lifetime.

Earlier filters only protected coils and did not improve air quality. A colander catches spaghetti and anything larger than the holes. An air filter is not like a colander. The particles strike and adhere to the fibers of the filter. A 10 nanometer (nm) particle is not as hard to catch as a 20 nm particle. **One nm = one billionth of a meter.** A charged filter can have lower efficiency when loaded.

This Research Project RP sent filters to numerous locations for use in different systems. The filters were returned after one half, one third, or 100% etc. of their rated lives. When a filter is loaded, air is more likely to go around the filter.

Kathleen used a 6 inch filter in her house. In a test, there was not a huge increase in pressure drop when the filter became loaded. All stayed below 0.8 iwg. Electret filters decreased in efficiency when loaded. Electret filters are composed of fibers which are charged during manufacturing.

A map of the US was shown illustrating the concentration of fine dust by mass. The highest concentration was shown as an irregular shape including Georgia and some adjacent areas. Filter dust color and the composition of the dust varies a great deal from one building to another. The dust is amorphous with a lot of flattened particles (usually dander, in residences). The particles stick to the filter. The presentation mentioned particles from 2 nm to 100 nm. There is no strong correlation between geographic location to the type of dust. It was found that filters could be used longer than the predicted filter life.

A download of the full report may be purchased from the ASHRAE website (or is free to ASHRAE members). The 415 page report is entitled: RP-1360 -- How Do Pressure Drop, Efficiency, Weight Gain, and Loaded Dust Composition Change Throughout Filter Lifetime.

ASHRAE Insights publishes the names of each member, Society wide, who earns an ASHRAE Certification. All members are encouraged to earn a certification. Every area of certification is highly relevant to our industry.

-Gene Brown



Research Endowments Update:

This year we have a new Endowment to fill, one in honor of Clarence Hamm. The great benefit to our Chapter is that once this commitment as a group to this Endowment is filled, the Chapter will receive 5% annually. So, if you are thinking of contributing to research this year, please think about adding a little to this Endowment. Our other Endowments can be added to as well, as there is no limit as to how much is in the Endowment. The nice thing we get 5% annually on what is in these Endowments.

David Kauffman

RP Chair

Presidential Corner:

For those interested, we will be joined at a future meeting (TBD) by David McDaniel where he will give a short presentation on next year's CRC in hopes of relieving any apprehension about travelling to Greece. Please stay tuned for the date and try to attend if interested.

Jacob A. Yount

Chapter President



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2018-2019 Events

October 9th, 2018 **Meeting** @ Harbor Breeze— <u>Energy in Action:</u> <u>The South Carolina State Energy Plan</u>

November 13th, 2018 **Meeting** @ Harbor Breeze— <u>TBD</u>

December 11th, 2018 Winter Annual Oyster Roast @ TBD

January 8th, 2019 Lunch Meeting @ Harbor Breeze— TBD

February 12th, 2019 **Meeting** @ Harbor Breeze— <u>Critical Room</u> Control

March 12th, 2019 Meeting @ Harbor Breeze— TBD

April 9th, 2019 Meeting @ Harbor Breeze— TBD

May 14th, 2019 **Meeting** @ Harbor Breeze— **TBD**

June 2019 Summer Low Country Boil Social @ TBD

What is YEA?

To ensure a bright future for ASHRAE and the industry, the Young Engineers in ASHRAE (YEA) Committee was developed to create programs and develop a path for our young professional members. Any current ASHRAE Affiliate, Associate or Member who is 35 years of age or younger is considered a YEA member, and automatically has a wide variety of programs, events, and opportunities at their fingertips!

