CHARTERED APRIL 14, 1971

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MONTHLY NEWSLETTER FOR THE REGION 4 CHARLESTON CHAPTER 113 OF ASHRAE



Upcoming Event Excitement!

We have a lot of exciting events around the corner!

May 21st, 2019 Luncheon Meeting (12:00 pm) @ Magnolia's at 26th

Myrtle Beach SC

<u>"Outdoor Airflow</u>
<u>Control Improves</u>
Building Performance"

June 2019

Summer Low Country Boil Social @ TBD

Sustainability Activity

Date TBD





Next Meeting Tuesday, May 14

BOG Meeting 5:00-5:30

Happy Hour 5:30-6:00

Chapter Meeting/Dinner 6:00-7:00

\$30/person

May 14, 2019

The Great Seismic Headache

Seismic Requirements for Non-Structural Components

David Pelfrey, PE (Synergy Engineering)

Presentation Summary:

This presentation is designed to raise awareness of the potential risks associated with non-structural failures and the costly consequences associated with those failures. Information includes reasons why restraint requirements exist, what these requirements are and how to interpret the code definition of seismic design/qualification. Further understanding will be offered in terms of special certification requirements and the key roles that the design and installation team fulfill in assuring compliance with these requirements.

Speaker:

David Pelfrey, PE

David is originally from the Greenville, SC area and attended Clemson University where he earned a B.S. in Civil Engineering in 1999 and a M.S. in Civil Engineering in 2001. He began his professional career for a Structural Consulting firm in Charlotte, NC providing structural analysis and design related to infrastructure for the telecom industry. His next 9 years were spent as a Geotech Engineer for ESP Associates. David's duties included site specific soils investigations, seismic site classifications, and seismic design category determinations. David was responsible for the development and implementation of the company's inspection program for Seismic Resistance as it relates to restraint of non-structural components. He has been with Sysnergy Engineering since 2013 and supplements the company's expertise in seismic and wind restraint design. He is licensed in NC and SC.

ASHRAE Research Investors

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

Corporate Donors (\$1,000+

The Chapman Co

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Corporate Donors (\$500+)

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Constantine Engineering Associates

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Allied Application:

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Honor Roll Donors (100+)

Jacob A Youn

David Kauffman

Malcolm D. Knight, PE

Marcus Dee Googer

Philip Runyon

Steven A. Marek

Randy Iones

Timothy Niles

Brot Turkall

Dick Trent

Gregory Hudson

Pete Conrov



CTTC Corner

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

Congratulations to **Clayton Dalon** and **Jeff Ross-Bain.** Each of them has obtained certification as ASHRAE Building Commissioning Professional.

At our April meeting **Malcolm Persaud** gave an outstanding presentation: "Critical Cooling or Heating Application and Controls".

A degree of redundancy must be provided, depending on the particular application.

Critical heating is important in some systems. In a neonatal ward it is essential that the preemies are provided with the proper environment.

Be sure to use shielded cable in an MRI environment.

For an inverter driven redundant system, it is important to provide a lead-lag operation. One system should be "waiting", not off.

If required, both systems can operate together to maintain setpoint.

Thermostats should not be battery operated. An alarm system should provide notification if a thermostat fails.

WIFI is required. Zigbee is better than WIFI in locations where there is a lot of electronic noise. With Zigbee, every node is connected to every other node so transmission of the signals is not solely dependent on the router.

For a school, two AHU's can be routed through a common duct system to serve all areas. If one AHU fails, partial cooling or heating can be provided.

In Mr Persaud's building there is a WIFI for guests and also a closed WIFI system.



Regional Update:

All members are encouraged to submit entries for a technology award. This will be a good advertisement for your company and will help our chapter compete for regional awards.

Building Energy Quotients (BEQ). BEQ looks at buildings before they are built and after they are constructed. BEQ gives a list of low hanging fruit for saving energy. The potential for saving energy is typically 30% as compared with a few years ago.

Randy Jones Treasurer

Research Endowments Update:

We would like to take a moment and thank those you sponsored the golf tournament, helping us come closer to reaching our research goals for the year.

Allied Applications; Constantine Engineering Associates; Epting Distributors; Hahn Mason; James M Pleasants; Research Air Flow; The Chapman Company; Triad Mechanical Contractors; Victaulic

For those you are still planning on making a research promotion donation, please think about donating, to the Clarence Hamm endowment, we are about \$1,900 short from fulling this complete amount of \$3,000 or the scholarship fund

David Kauffman RP Chair

Government Affairs Committee Update:

Thank you for those who participated in the **Government Outreach Day at the SC Statehouse** with the Greenville Chapter and the South Carolina Chapter. We were able to meet with key people and Look forward to positive results.

Pete Conroy Government Affairs Committee Chair



Chapter Officers

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BOG— Steve Marek, Philip Runyon, Pete Conroy

2019 Events

May 14th, 2019 Meeting @ Harbor Breeze—

"The Great Seismic Headache"

May 21st, 2019 Luncheon Meeting (12:00 pm) @ Magnolia's at 26th—

"Outdoor Airflow Control Improves Building Performance"

June 13th 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!

