

## ISSUE IV | 2018

## CURRENT OFFICERS

PRESIDENT Bryan W. Schenck BWSchenck@heapy.com Heapy Engineering

### PRESIDENT-ELECT Michael Weisman MichaelWeisman@habeggercorp.com

Habegger Corporation

TREASURER Brian Turner BTurner@ElitAire.com ElitAire

SECRETARY Nathan Launer Nathan.Launer@JCI.com Johnson Controls, Inc

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# September Events

**SEPTEMBER 18, 2018** SINCLAIR COMMUNITY COLLEGE Building 12 Conference Center, Dayton, OH

EXPO

**Register Here** 

AND 2018 Fourth Annual Bocce Ball Tournament

Register for the Event Today



WWW.DAYTONASHRAE.ORG



We hope that everyone had a wonderful summer season!

Our events this year kickoff with a great one this Friday in our Annual Bocce Ball Tournament at the John Pirelli Lodge (Italian Club). We still have some availability to register additional teams, so please register today! If you've never played, it's a game that you can become acclimated with quickly, so come out and enjoy a fun, relaxing time.

The Tuesday following this event is our participation in the Dayton Green Expo, at Sinclair Community College (Building 12). We are co-sponsoring an education session and will have a table in the trade show. Please stop by and see us!

On October 8th, we have our first official chapter meeting at the Engineer's Club of Dayton which is a dinner meeting. This will be a Membership Promotion Night, as well as RP Night. This meeting is free to all members *AND* prospective members.

We look forward to meeting the membership this year at events like this, so please stop by !!

Bryan W. Schenck — President Dayton ASHRAE

## **Upcoming Events**

September 12th Board of Governors 8:00 AM, Heapy Engineering

September 14th Bocce Ball Tournament Italian Club, Dayton

September 18th Dayton Green Expo Sinclair Community College

October 8th Chapter Meeting 5:00 PM, Engineer's Club

October 17th Board of Governors 8:00 AM, Heapy Engineering

> See Additional Events & Volunteer Opportunities Here

President: Vice Pres.: Secretary: Treasurer: BOD: BOD:

Education: RP: Membership: Jack Putnam Mark Rae Matt Stoermer Mark Ganser

John Stewart Dick Wood

Alan Watton Larry Brelsford Dennis Lammlein Lorenz & Williams Greater Dayton H&C Stoermer Equipment Co Trane Co.

Greater Dayton H&C Enterprise Roofing & SM

Sinclair Simplex Monsanto Research Cor

Meetings were held at the Ramada Inn. CRC held in Cincinnati

83 Total Members Received PAOE Presidential Award of Excellence

## **Committee Chairs**

## MEMBERSHIP Jeremy Fauber JPFauber@heapy.com

Heapy Engineering

HISTORY Rob Mauro RMauro@nelsonstark.com Nelson Stark

## COMMUNICATIONS

Nathan Lammers Nathan.Lammers@waibelenergy systems.com Waibel Energy Systems

## RESEARCH PROMO Open Position

Please Contact Bryan W. Schenck

STUDENT ACTIVITIES Russell Marcks

Russell.marcks@sinclair.edu Sinclair Community College

> CTTC Evan Nutt ENutt@elitaire.com Elitaire

### GOVERNMENT AFFAIRS Paul Hawkins

Paul.Hawkins@waibelenergy systems.com Waibel Energy Systems

> YEA (Co-Chairs) Steven N. Meier

steve@skm.services SKM Services

Phillip Reid PAReid@heapy.com Heapy Engineering

## **Board of Governors**

Jeremy Fauber Heapy Engineering

Rick Pavlak Heapy Engineering

Larraine Kapka Sinclair College



# **New Members**

The Dayton Chapter is happy to welcome its newest members. If you see them please give them a warm welcome!

> July Robert Stohr

## Do you know a colleague that would benefit from joining ASHRAE?

You can go to <u>http://web.ashrae.org/</u> <u>connect a colleague/</u> and quickly sign up for ASHRAE to send an email to ask them to sign up on your behalf.

# **Membership Recognition**

We would like to recognize the following members who have been with ASHRAE for the following years! Thank you for all your contributions to the field!

## **25 Years** Jeffrey Zelinski

# **Membership Promotion Committee**

Looking for a way to get involved with your local ASHRAE chapter and meet new people? The membership promotion committee is looking for volunteers to join the committee. The committee's primary responsibility is to recruit new members and retain existing members. If you are interested in serving please contact Jeremy Fauber at JPFauber@heapy.com. Or by calling 937-224-0861

# Membership Application Here

## **INDIVIDUALS Begins at \$100**

Evan Nutt Bryan W. Schenck Steven N. Meier David Crosley

Brian Turner Tom Mastbaum Nathan Lammers





## **DONATE NOW**

Make YOUR donations using

the link below.

Our goal is not set yet for this year in Total Research Dollars.

## **To-date we raised \$700**

The HVAC Industry gives us all our livelihood. ASHRAE's research and educational programs are what keeps our industry and professions on the leading edge and assures its continued existence. Confident that you will recognize the benefits of this investment, we are asking you to help fund future HVAC&R research and development by donating this year. Thanks so much for your help in advance!

## **EPA Proposes New Rule for Coal Power Plants**

On August 21, the Environmental Protection Agency released its proposed "Affordable Clean Energy" rule to replace the Obama-era Clean Power Plan. The proposed rule recommends on-site efficiency improvements and relaxes emissions standards. <u>You can read the Administration's technical analysis here.</u>

## **City of Washington DC Updates Renewal Portfolio Energy Act**

The City of Washington, DC recently updated its Renewable Energy Portfolio Act, passed in 2004, to increase the city's efforts to move to 100% renewable energy by 2032. This legislation will establish a solar energy standard after 2032, to require that electricity suppliers obtain a certain percentage of their energy from long-term purchase agreements with renewable generators. It will also enact a building energy performance program and expand the city's benchmarking program to include buildings of more than 10,000 square feet by 2024. Click here to view the full legislation.

## Minneapolis, MN October 15-19, 2018 Find more information <u>here</u>

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### HVAC Design: Level I - Essentials

ASHRAE's HVAC Design: Level I – Essentials training provides participants with instruction that accelerates their transformation into effective members of a design, construction or facilities maintenance team. Developed by industry-leading professionals selected by ASHRAE, the training provides attendees with the fundamentals and technical aspects of HVAC design. Attendees will gain practical skills and knowledge to design and maintain HVAC systems that can be put to immediate use.

In addition to gaining in-depth knowledge and understanding, attendees will receive real-world examples of HVAC systems based on the renovated ASHRAE Headquarters building. The training also teaches a systematic approach to guide a design team to a solution that optimally meets the client's expectations. Engineered drawings of the ASHRAE Headquarters renovation will also be discussed so participants are exposed to plan reading and visual understanding of system design.

## HVAC Design: Level II - Applications

ASHRAE's HVAC Design: Level II – Applications training provides participants with instruction on HVAC system design. The training is tailored for engineers with advanced experience in the HVAC design field, or those who have completed HVAC Design: Level I – Essentials. Developed by industry-leading professionals, the training provides advanced information that allows practicing engineers and designers an opportunity to expand their exposure to HVAC systems design procedures for a better understanding of system options to save energy.

#### Five Hospitals, One Goal: Maximum Energy Savings

Between 2010 and 2017, the CHU de Québec–Université Laval (Quebec City University Hospital Center) underwent major asset renewal across three of its sites (and a fourth one was completed as of press date). The CHU has slashed its energy consumption by 30%, generating \$2.9 million in annual savings, and reducing its greenhouse gas emissions by 52% (12,000 metric tons per year).

The CHU chose a performance contracting model and used an integrated approach to completely rethink the way they consume energy. This resulted in maximum energy savings and energy efficiency incentives, which were used to pay for a large portion of the asset renewal required in the hospitals.

#### **Project Sites**

The CHU is a group of five main hospitals in Quebec City, with an annual energy bill of \$9.5 million. Upgrades to the three sites were completed in 2015, with two full years of performance monitoring. The sites are located in a different neighborhoods and do not share a common district network. All were treated as separate projects. The largest site, and the first to be upgraded, was CHUL with a gross surface area of 1,375,434 ft2 (127 778 m<sup>2</sup>) and a net surface area of 1,031,946 ft<sup>2</sup> (95 868 m<sup>2</sup>). Upgrades to the two remaining sites began a year later.

#### **Needs and Requirements**

Although each site had particular needs, a few common drivers were present among all three sites:

- Renewing HVAC assets and addressing deferred maintenance resulting from years of government budget cuts to the hospitals' technical services;
- Achieving sustainability goals, including reduced water and energy use, lower GHG emissions, and eliminating certain refrigerants;
- Reducing maintenance costs for HVAC systems;
- Maintaining comfort for the patients and staff;
- Meeting energy efficiency targets set by the Quebec government for healthcare facilities; and
- Designing with a focus on results.

To achieve its goals, the CHU issued a public request for proposal (RFP), seeking a design-build firm that could also contractually guarantee the project cost, the financial incentives and the annual savings over the entire payback period. The project's simple payback period (excluding financing rate) was 6.5 years. One of the financial metrics used to choose the winning firm was net present value (NPV), which highlighted the project with the greatest overall value for the CHU, accounting for all expenses and savings over a 20-year period.

Over the following months, the chosen firm became an extension of the CHU's technical services department, doing extensive surveys of the HVAC systems and prompting feedback from the CHU's operating staff. The project team was focused on achieving substantial results, and took a holistic approach to the buildings, seeking every opportunity to improve the ventilation systems, heating and cooling networks, lighting, and centralized control systems.

A central aspect to the design was converting the hospitals' steam heating systems to hot water, making it possible to add high-efficiency heat pumps. The design for each site focused on maximizing heat recovery and minimizing energy losses throughout all networks (steam, hot water, chilled water).

See the full article in the June 2018 (volume 60, number 6) ASHRAE Journal...