



DAYTON CHAPTER

WWW.DAYTONASHRAE.ORG

ISSUE VIII | 2023

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SECRETARY

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Ketchum-Walton

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To Russell Marcks on receiving the Region V Student Activates Lifetime Achievement award!!!

Russ brought the display of the student project that they presented not too long ago at on of the ASHRAE conferences.

The Dayton Chapter is so proud of you and wish you the best in your retirement.



FROM THE PRESIDENT

Thanks to all who were able to attend this years Chapter's Regional Conference in Akron, Ohio. The Dayton Chapter was awarded a Special citation for the President Award of Excellence. Matt Dill received Presidential award of Excellence also. A special thanks to Matt Dill for walking me through the processes of CRC. I was able to get to know a lot of other chapter Presidents and others within Region V. I learned a lot and I hope to bring the know-ledge shared to our Dayton Chapter.

I'm looking forward to once again meet our fundraising goal for Research Promotion. We are always looking for others to get involved with the Chapter. If you are please reach out to someone on the Board or myself.

Thank you,
Jennifer Eller
President, Dayton ASHRAE



Julia (Columbus), Me (Dayton), Emily (Toledo), & Katherine (Central Indy)
All Presidents of our their chapter for 2023-24

Upcoming Events

August 16th
Board of Governors
8:00 AM, Virtual Meeting

Sept. 20th
Board of Governors
8:00 AM, Virtual Meeting

[See Additional
Events & Volunteer
Opportunities Here](#)

CHAPTER HISTORY (1959-1960)

| | | |
|-------------------|----------------------------------|-------------------|
| President: | Norman Mitchel | Honeywell |
| Vice Pres: | Thomas Lutz | Chrysler |
| Secretary: | Frank Doench | Helmig & Lienesch |
| Treasurer: | Jerry Ely | Chrysler |
| BOD: | All officers & Committee Members | |

Education:
Research Pro.:
Membership:

Regional Director: Mr. Cider

Meetings were held at the Dayton Engineering Club.

Committee Chairs

MEMBERSHIP

Vincent Caudill

Vcaudill@ecomfortohio.com
Environmental Comfort, LLC

HISTORY

Bryan Schenck

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Phillip Reid

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Heapy

Board of Governors

Rick Pavlak

Heapy

Lorraine Kapka

Sinclair College

Brian Turner

Elitaire

MEMBERSHIP

New Members

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

July: **Kevin Sturm**

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

You can go to http://web.ashrae.org/connect_a_colleague/ 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!

No Anniversaries this month

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 **Vincent Caudill** at vcaudill@ecomfortohio.com or by calling 740-971-7795.

Membership Application Here

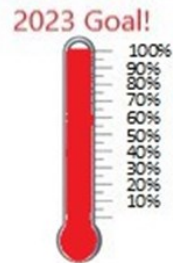
ASHRAE RP

Thank you to all those who helped us meet our 2022-23 goals for the RP campaign. At this time, our 2023-24 goals have not officially been set. Our expectation is that our goal will be close to \$20,000 again this year. Finally, for those looking to kick off the next 23-24 season, please consider donating to ASHRAE RP / Education / Scholarships. See the link BELOW to donate today!

Please note again that in order to be recognized with a commemorative coin, and have your name published in the ASHRAE Journal, the minimum donation is \$150 for individuals and \$500 for Corporate Donors .

2022 Goal = \$ 19,680
YTD = \$ 19,790
To go = \$ 0

% to GOAL: 100%



Partner Level

Emerson

Honor Roll

Steve Meier
Lorraine Kapka
Brian Turner
Jennifer Eller
Evan Nutt
Bryan Schenk
Matt Dill
Rick Pavlak
David Crosley
Jeremy Fauber
Kyle Schroeder

Bronze Level

Russell Marcks
Uptime Solutions
Sam Tobias

Silver Level

Dave Waibel

Honorable Mention

Zak Schultz
Kort Kugel
Vincent Caudill

Thanks for all your help and support. If you would like to donate NOW simply click this link:

DONATE NOW

And make your donation to help ASHRAE in its Research Efforts. Thank you so much!!



Government Affairs

From: Jennifer Butsch—GA Chair

IRA money, whether tax credits or rebates, is likely to have a positive impact federally and locally as we decarbonize new and existing buildings. I was actually just in DC last week with GeoExchange – asking for additional guidance from Treasury and advocating the use of ASHRAE standards when determining thermal net output of geothermal heat pumps. We met with Sen Brown's Legislative Assistant, but not the Senator directly. We did meet with several other members during our visit including Rep Paul Tonko from NY.



IRA Rebate Update

The recently passed Inflation Reduction Act includes multiple tax incentives and investments to bolster consumer [home energy rebate programs](#) which are critical for improving local air quality and public health, and cutting U.S. greenhouse gas emissions. With nearly \$9 billion to be made available through states and Tribes for consumer home energy rebate programs, focused on low-income consumers, communities will be able to electrify home appliances and perform energy efficient retrofits.

Programs that states will implement include:

- The home energy performance-based, whole house rebates (HOME Rebates) for:
 - ◇ Rebates for energy efficiency retrofits range from \$2,000-\$4,000 for individual households and up to \$400,000 for multifamily buildings.
 - ◇ Grants to states to provide rebates for home retrofits.
 - ⇒ Up to \$2,000 for retrofits reducing energy use by 20 percent or more, and up to \$4,000 for retrofits saving 35% or more.
 - ⇒ Maximum rebates double for retrofits of low- and moderate-income homes.
- The high-efficiency electric home rebate program to:
 - ◇ Develop a high efficiency electric home rebate program with \$225 million allocated for Tribes.
 - ◇ Includes point of sale rebates, administered by states.
 - ◇ Includes means testing and will provide 50% of the cost for incomes 80 to 150% of area median income, and 100% of the cost for incomes 80% of area medium income and below and similar tiers for multifamily buildings.
 - ◇ Includes a \$14,000 cap per household, with a \$8,000 cap for heat pump costs, \$1,750 for a heat pump water heater, and \$4,000 for panel/service upgrade.
 - ◇ Other eligible rebates include electric stoves and clothes dryers, and insulation/air sealing measures.

Ohio has been allocated \$249 million in funding, spread evenly across the two rebate programs.

*****[Please see link above for more information](#)*****

ASHRAE News

The Dayton Chapter is always looking for creative individuals
To help volunteer for different positions or events.



Shaping Tomorrow's
Built Environment Today

Please make sure to let us know
If you are willing to help our and
Share your ideas to help
Shape the world of HVAC-R!

We currently are looking for a YEA
chair for the Dayton Chapter!!

ASHRAE Journal Podcast Presents...

26. Infectious Aerosol Control: Understanding Standard 241

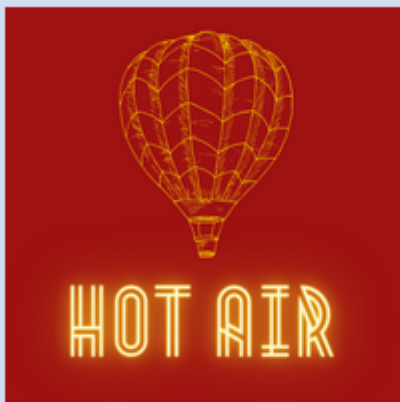
Join ASHRAE's Manager of Codes, Emily Toto, as she speaks with William Bahnfleth, Ph.D., P.E., Presidential/Fellow/Life Member ASHRAE, and Max Sherman, Ph.D., Fellow/Life Member ASHRAE, about ASHRAE Standard 241, Control of Infectious Aerosols. The trio discusses the motivation behind developing the newly approved Standard, some of the minimum requirements it establishes and how it was approved so quickly.

Left, William Bahnfleth; Max Sherman



ASHRAE
JOURNAL
Podcast

Listen



How Can AI Benefit the Refrigeration Industry?

With Andy Pearson

Andy Pearson, Ph.D., C.Eng., Fellow ASHRAE, and Technical Editor Rebecca Matyasovski discuss how artificial intelligence (AI) can benefit the refrigeration industry as well as potential pitfalls that could lead to embarrassing or costly mistakes. Click [here](#) to read the article.

Listen

Wisconsin Members Testify at Hearing in Support of ASHRAE 90.1-2019 Adoption

On July 18, ASHRAE Presidential Member Mick Schwedler, P.E. and member of the La Crosse, Wisconsin Chapter, testified at a joint hearing of the Wisconsin Senate Housing, Rural Affairs, and Forestry Committee and the Assembly Housing and Real Estate Committee. ASHRAE Wisconsin chapter members Chris Hsieh, Victor Nino, and Heather Kozlowski provided additional comments to supplement his testimony. The subject of the hearing was the proposed adoption of an updated state commercial building code that includes ASHRAE 90.1-2019, [Energy Standard for Buildings Except Low-Rise Residential Buildings](#), and the 2021 International Energy Conservation Code (IECC). Wisconsin's current code is equivalent to the 2010 edition of Standard 90.1, so this update would result in significant energy savings and greater cost-effectiveness. The ASHRAE members responded to multiple questions from legislators and shared data showing how the state would benefit from the proposed code update. A recording of the hearing can be found [here](#). A copy of the oral testimony can be found on the ASHRAE website [here](#).

Massachusetts Day on the Hill Event

On July 13th ASHRAE members Sarah Maston, Will Fisher, Enrica Galasso, Ted Jones, and Ben Pignatelli traveled to Boston, Massachusetts to speak to their lawmakers in the statehouse. The group spoke to ten lawmakers or their staff, and introduced ASHRAE before discussing indoor air quality legislation, the building code update process, and energy efficiency. The ASHRAE Massachusetts delegation's trip to Boston was timely, as ASHRAE Government Affairs staff are tracking over a dozen bills in the state, most relating to indoor air quality. For information on how to set up your own government outreach events, please [reach out to the ASHRAE Government Affairs team](#).

ASHRAE Signs Letter of Support for the Freedom to Invest in Tomorrow's Workforce Act

ASHRAE joined members of *Tomorrow's Workforce Coalition* in sending a letter of support for the Freedom to Invest in Tomorrow's Workforce Act (S.722 / H.R.1477) to Congressional leaders for the Committee on Finance and Committee on Ways & Means. This legislation would allow the use of funds in a qualified tuition program (commonly known as a 529 account) to pay for expenses associated with obtaining or maintaining recognized postsecondary credentials. The legislation would support those interested in applying for and maintaining ASHRAE certifications. This bicameral, bipartisan bill could help develop and advance the workforce by offering access to specialized trainings, professional certifications for career growth, continuing education and other renewal needs, and other skill building activities.

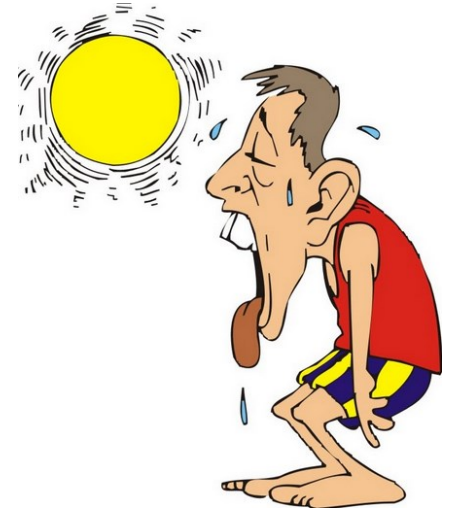
GSA Introduces New Sustainable Facilities Tool

GSA has published a new tool to educate users on building decarbonization. The new site, called the Sustainable Facilities Tool, explains how the carbon footprint of a structure is due to both operational and embodied carbon, and provides helpful infographics and other resources for policy makers and regulators. The page also explores how to conduct a whole building lifecycle assessment, and provides strategies on how to lower embodied and operational carbon that range from advice on material procurement to heat pump adoption. The Sustainable Facilities Tool can be found [here](#).

ASHRAE News

July Set Global Temperature Records

During July the earth has likely experienced its hottest period in modern history, with temperatures breaking records across the globe from North America to Antarctica. This surge in heat is part of a larger trend, as the planet recently had its warmest June ever recorded. The rise in temperatures is driven by both climate change and the return of the El Niño weather pattern. Global average temperatures reached an all-time high on July 5, 2023, at 62.9 degrees Fahrenheit. The overall warming trend has amounted to a roughly 2 degrees Fahrenheit increase since the 19th century, and this warming is expected to continue. However, the recent acceleration in temperatures is also influenced by the El Niño-Southern Oscillation, which is transitioning from a cooling La Niña phase to a warming El Niño phase, adding to the heat. You can read a full analysis [here](#), and find a tool to track dangerous heat city by city in the United States [here](#).



EPA Continues 40% Phasedown of HFCs

The U.S. Environmental Protection Agency is fulfilling its direction from the American Innovation and Manufacturing (AIM) Act of 2020, and the international agreement known as the Kigali Amendment. On July 11th, EPA finalized a rule on the phasedown of Hydrofluorocarbons (HFCs), greenhouse gases with high global warming potential. Both the AIM Act and the Kigali Amendment aim to curb HFC production and consumption by 85 percent before 2036. HFCs are used for cooling applications such as air conditioning and refrigeration, and are also frequently found in fire suppressants used on military bases. The AIM Act authorized the EPA to phasedown HFC production and consumption, manage safe and effective alternatives, and guide the transition to next generation technologies. The Inflation Reduction Act (IRA) included \$28.5 million for the EPA to comply with the AIM Act. Later this year the EPA is expected to finalize restrictions of HFCs in certain products and issue a proposal for authorizing the promulgation of rules to manage the phasedown of HFCs.

EPA Announces Two New Funding Opportunities from Greenhouse Gas Reduction Fund

On July 14th, the Environmental Protection Agency (EPA) announced two funding opportunities stemming from the \$27 million Greenhouse Gas Reduction Fund created by the Inflation Reduction Act (IRA). The National Clean Investment Fund (NCIF) will provide \$14 billion in funding to 2-3 national, nonprofit, clean financing institutions who can distribute affordable financing for clean energy projects. Similarly, the Clean Communities Investment Accelerator (CCIA) will award \$6 billion to 2-7 "hub nonprofits" that can efficiently provide funds to community lenders in historically underserved markets. Both programs complement the previously announced Solar for All program, which was funded at \$7 billion to provide up to 60 grants for solar projects in low-income and disadvantaged communities. All three projects align with the objectives of the Greenhouse Gas Reduction Fund; reduce emissions of GHG and other pollutants, deliver the benefits of reduced GHG and pollutants with a focus on low-income and disadvantaged communities, and mobilize financing and private capital resources for deploying GHG and pollution-reducing projects.

ASHRAE News

Summer Heat Revives Concerns of Grid Stability, DOE Responds with \$200 Million in Grants

Increasingly high temperatures associated with summer are continuing to cause unprecedented stress on sections of the nation's electric grid. As the U.S. energy portfolio continues to diversify and transition toward clean energy, the grid is also facing a need to evolve its abilities in addition to addressing added capacity and intense weather events caused by climate change. So far this year, independent service providers MISO and PJM have been able to handle peak power demand without having to implement rolling blackouts. In Texas, ERCOT has been combatting outages at power sources by introducing new response mechanisms for extremely hot days and through the addition of a projected 10,000 megawatts of solar and wind energy.

The U.S. Department of Energy (DOE) is using \$200 million in funding from the Infrastructure Investment and Jobs Act (IIJA) to support the modernization of power systems to prevent blackouts. The funds, which are focused on disadvantaged communities, will go to 12 states and tribal nations, including \$67.5 million to California to reduce frequency and duration of power outages in disadvantaged communities. Texas will also receive \$60.6 million for the identification of grid resilience gaps, implementing weatherization, and managing fuel loads. Many of the projects receiving funding have a focus on bolstering resilience in grids serving vulnerable and disadvantaged communities.

DOE Issues a NOPR on Standards for Air-Cooled, Evaporatively-Cooled, and Water-Cooled Commercial Package Air Conditioners and Heat Pumps

On July 21, the U.S. Department of Energy (DOE) issued a pre-publication notice of proposed rulemaking to amend test procedures to the latest standards for: air-cooled commercial package air conditioners and heat pumps with a rated cooling capacity greater than or equal to 65,000 Btu/h, evaporatively-cooled commercial package air conditioners, and water-cooled commercial package air conditioners. The proposed rulemaking would make changes to the test procedures used for measuring performance metrics such as integrated energy efficiency ratio (IEER) and coefficient of performance (COP).

The proposed rulemaking would also adopt a new test procedure for determining integrated ventilation, economizer, and cooling (IVEC) and integrated ventilation and heating efficiency (IVHE). Comments will be accepted for 60 days after the date of publication in the Federal Register; the docket number is EERE-2023-BT-TP-0014. DOE also plans on hosting a webinar on September 7, from 1:00pm to 4:00pm ET, you can register for the webinar [here](#).

How University of Texas Arlington Keeps Campus Cool in Summer Heat

Throughout the year and especially during hot summers, UTA's department of energy management and mechanical operations works behind the scenes to ensure students and faculty can work in suitable indoor temperatures all across campus. UTA's campus relies on an extensive HVAC system designed to provide air to about 70% of the campus, said Robb Chock, director of energy management and mechanical operations at UTA. UTA's cooling system functions via two central chilled water plants, Chock said. Together, they have a chilled water capacity of 17,400 tons. The thermal energy plant houses four cooling towers and the satellite plant behind the MAC hosts three. [Read more](#)

ASHRAE News

ASHRAE News

2023 Decarbonization Conference for the Built Environment Technical Program Released

ASHRAE along with leading industry organizations have released the technical program for the [2023 Decarbonization Conference for the Built Environment](#), October 25-27, 2023 in Washington, D.C. at the Renaissance Arlington Capital View. The [full conference schedule](#) is now available and registration is open. The conference is organized by ASHRAE, the American Institute of Architects (AIA), International Facility Management Association (IFMA), APPA and Building Owners and Managers Association (BOMA). [Read more](#)



August 2023 Digital Journal

This month's issue of ASHRAE Journal includes topics such as the newly published ASHRAE Standard 241 Control of Infectious Aerosols, AI in refrigeration and CFD analysis of a pharmaceutical cleanroom.



Access July's Digital ASHRAE Journal

July's issue of *ASHRAE Journal* includes topics such as the first net-zero quick-service restaurant, spray foam applications and pitfalls and SARS-CoV-2 infection risk modeling in office building HVAC systems.

[Access the digital edition here.](#)

Past Issues

All articles and columns published in *ASHRAE Journal* since 1997 are available in pdf format at no cost to members through ASHRAE's Technology Portal.

[Search the archives here.](#)



Access all four ASHRAE Handbook Volumes

The fully interactive ASHRAE Handbook Online offers all the content of the 3,600 page ASHRAE Handbook series, plus supplemental features like spreadsheets to perform calculations, sound and video clips to better demonstrate processes and applications, animations, and links to related information, data, and software available from ASHRAE and others. [Click here for more information.](#)

ASHRAE Job Board

Senior Manufacturing Engineer Brazeway; Shelbyville, Ind.; Adrian, Mich.
Civil Engineer II City of Bloomington; Bloomington, Ill.
Mechanical Engineer C1S Group, Inc.; Dallas, Texas
Electrical Engineer Vital Materials, Inc.; Bowling Green, Ohio
Industrial Maintenance HVAC Technician Epic; Verona, Wis.
Assistant Professor, Electrical Engineering Louisiana Tech University; Ruston, La.

Project Manager/Senior Project Manager Watry Design, Inc.; Long Beach, Calif.; San Jose, Calif.
Mechanical Engineer InSite Group, Inc.; Lee's Summit, Mo.
Electrical Senior Design Engineer Fluor; Greenville, S.C.
Engine/Cooling/HVAC Product Verification and Validation (PV&V) Engineer John Deere; Dubuque, Iowa

[View All](#)

ASHRAE News

2024 ASHRAE Conference for Integrated Design, Construction & Operations

June 24-26, 2024 | Indianapolis, IN



Ashish Mathur
Vice President, Innovation and Technology,
UVDI

Dr. Mathur serves as Vice President, Innovation and Technology at UVDI, a leading manufacturer and supplier of UV products for both air, surface and water disinfection. He received his doctorate and master's degrees in polymer science from Cornell University, USA. Dr. Mathur has over twenty years of experience in platform technology development, product innovation, technology transfer, manufacturing and commercialization of products for the UV disinfection and filtration industry.

He is an active member of International Ultraviolet Association (IUVA) and ASHRAE, where he is involved in Technical Committees for Ultraviolet Disinfection and Control of Gaseous Contaminants. He holds several patents and over twenty publications and conference presentations to his credit.

ASHRAE

ASHRAE Design Guide for Natural Ventilation

Expert Guidance on Designing and Implementing Natural Ventilation

ashrae.org/bookstore

The image shows a promotional graphic for an ASHRAE book. On the left is the ASHRAE logo. On the right is a small image of the book cover for "ASHRAE Design Guide for Natural Ventilation". Below the book image, the text reads "Expert Guidance on Designing and Implementing Natural Ventilation" and "ashrae.org/bookstore". The background features abstract geometric shapes in blue and green.

Free Supplier Webinar from UVDI
Presented Live Wednesday, September 13, 2023 2 p.m. - 3 p.m. ET
Certificate of Attendance Offered
- Available On Demand After Live Broadcast -

Using UV Technology for Improved Indoor Air Quality
New guidelines, new performance standards, new technologies