



WWW.DAYTONASHRAE.ORG

ISSUE XII | 2024

DAYTON CHAPTER

January 13th - In person Mtg.

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Main Presentation:
Your Ethics Tool Box
By : Julia Timberman, P.E.

Social Hour: 11:30 to 11:55 am
Chapter Business: 11:55 - Noon
Lunch & Main Presentation: Noon

Presentation will be at: Engineers Club of Dayton
110 E Monument Ave.
1 PDH Credit

Presentation description:

Test your "Ethics IQ" against real cases. ASHRAE members are often confronted with ethical issues (whether they realize it or not). In this presentation you will engage in an interactive session where you are presented with multiple ethics cases, then you will discuss the cases in small groups, and then reveal their decisions. The cases that will be presented are all part of the NSPE's Board of Ethical Review Online Cases.

Bio: Julia graduated from The Ohio State University in 2005 with a degree in Civil Engineering with a focus on project management. In 2013 she received her P.E. in HVAC. Julia started her career in the HVAC industry working for a mechanical contractor and then after graduation went to work for a design firm. She currently works as an outside sales representative, supporting customers with design build projects. She has 20+ year experience in the HVAC industry in Columbus.

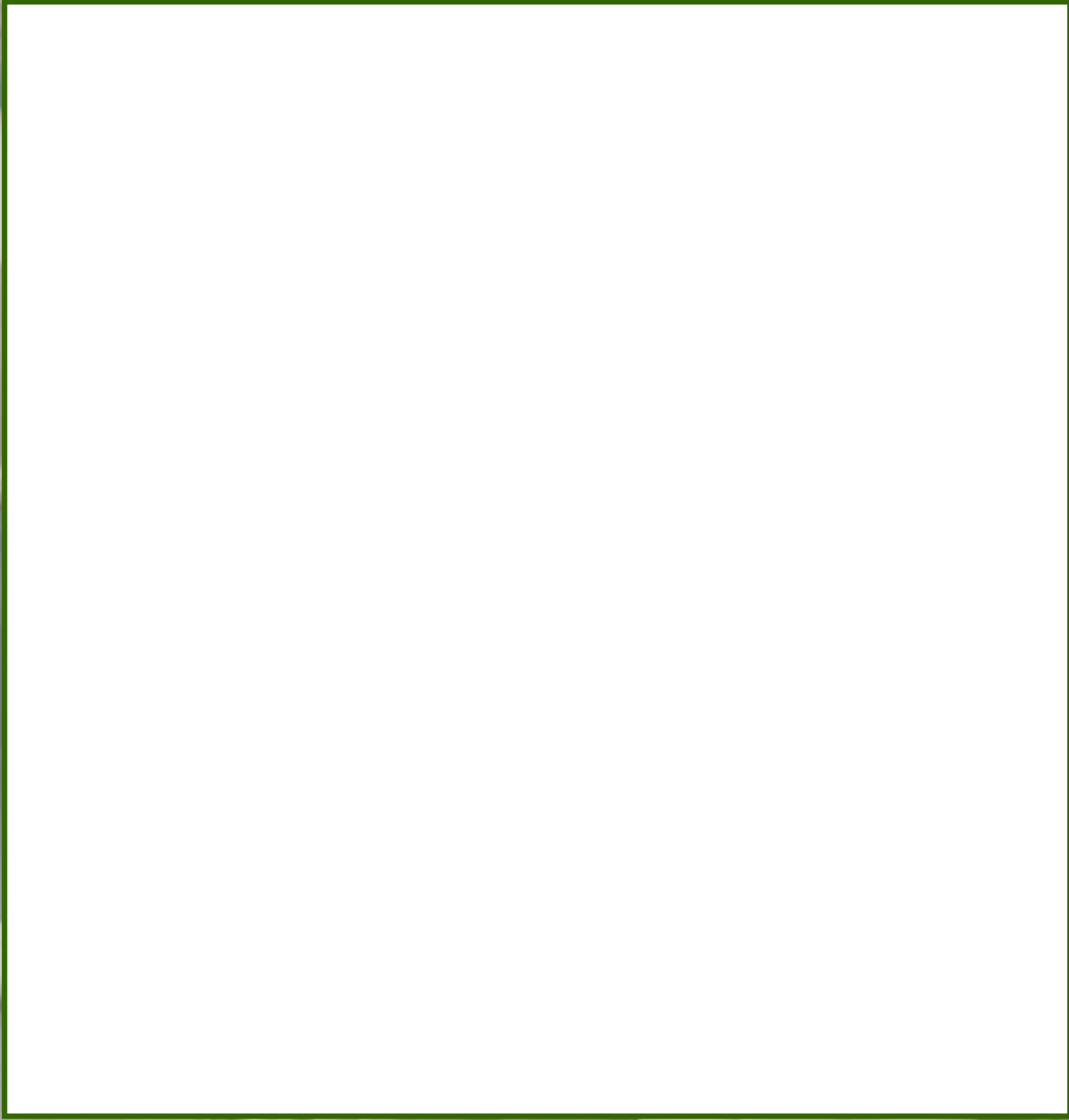
Julia currently serves as the Region V RMCR and the Chair of TC1.7, "Business Practice and General Legal Education"

Please use the Eventbrite link to sign up by Jan 10th.
The Eventbrite link for the December meeting is LIVE. Please register, if you plan to attend. <https://www.eventbrite.com/e/dayton-ashrae-chapter-meeting-tickets-1127826823389?aff=oddtcreator>



DAYTON

CHAPTER



FROM THE PRESIDENT

Happy New Year, Dayton ASHRAE! A big thank you to Brian Hafendorfer, P.E., Director of Mechanical Engineering at Gray AE, for his insightful presentation on moisture management in buildings during our December chapter meeting.

We're excited to kick off 2025 with some great updates. Please join me in welcoming Taylor Darby, PE with CriticalAire as our new chapter treasurer—thank you, Taylor, for stepping into this important role!

Looking ahead, we'll celebrate our 75th Chapter Anniversary with two special events: a Panel Discussion and Scavenger Hunt at Carillon Park (tentatively April 30th or May 1st) and a Dayton Dragons game suite (tentatively April 8th).

Stay tuned for details on our upcoming chapter meetings and the April technical tour. Let's make 2025 a fantastic year for Dayton ASHRAE!

Warm Regards, Kevin Strum , President, Dayton ASHRAE

Upcoming Events

Jan 13th

ASHRAE Chapter Mtg.
11:30 PM, In-Person Meeting

Jan 15th

Board of Governors
8:00 AM, Hybrid Meeting

Feb 17th

ASHRAE Chapter Mtg.
11:30 AM, In-Person Meeting

Feb 19th

Board of Governors
8:00 AM, Hybrid Meeting

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

CHAPTER HISTORY (1975-1976)

| | | |
|-----------------------|----------------------|----------------------------------|
| President: | Jack Rosati | J. Rosati & Assoc. |
| Vice Pres: | Francis Mauro | Johnson Service |
| Secretary: | Gene Hughes | Trane |
| Treasurer: | Mark Rapier | Trane |
| Education: | Thomas George | Steam Economies |
| Research Pro.: | David Johnson | Johnson Sales & Serv. |
| Membership: | John Stewart | Greater Dayton Heating |

Meetings held at the Dayton Engineers Club

CRC held in Indianapolis

Regional Director: John Welborn

Committee Chairs

MEMBERSHIP

Jennifer Eller

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Heapy

HISTORY

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City of Dayton—Sustainability

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!

December: Ruben Zelina

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

You can go to <https://connectacolleague.ashrae.org/> 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!

1 Year: Belinda Schuermann

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 **Jennifer Eller** at jmeller@heapy.com.

Membership Application Here

****Make sure to update your information on ASHRAE.org website or email me.**

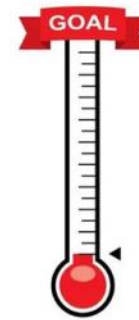
ASHRAE RP

Happy New Year! We hope everyone has enjoyed their holiday season. Thank you to those who have made an early donation to the ASHRAE RP 24-25 campaign. We still have a long way to go to meet our goals. For those looking to help, 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 .

2024 Goal = \$ 19,680
YTD = \$ 2,250
To go = \$ 17,430

% to GOAL: 11%



Partner Level

Honor Roll

Bronze Level

Lorraine Kapka
Steven Meier
Evan Nutt
Rick Pavlak
Brian Turner
Bryan Schenk
Kevin Sturm
Jennifer Eller
Sara Sowers
Matt Dill
Mark Mehicic

James Davidson

Silver Level

Honorable Mention

Haithem Murgham

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!!



ASHRAE News

Keeping Cool: Timeline of Refrigeration & Air Conditioning

The centennial of the founding of ASHRAE's predecessor society, ASHVE, was celebrated in 1994. That celebration included publishing *Heat & Cold: Mastering the Great Indoors*. The original manuscript featured a chronology of significant innovations in HVAC&R. However, space limitations precluded its inclusion in the book. For the American Society of Refrigerating Engineers centennial in 2005, the original chronology was updated with the AC&R information excerpted. This work is a sampling of the chronology, with some illustrations added, covering technical innovations from a century ago. [Read the article here.](#)

Treasury Finalizes ITC Rules, Providing Clarity to Solar, Storage, Other Clean Energy Sectors

The U.S. Treasury Department [issued final rules](#) earlier this month updating the Section 48 investment tax credit (ITC) and addressing issues raised in comments on the proposed rules regarding offshore wind, geothermal heat pumps, biogas, hydrogen storage and co-located energy storage. New clarifications included definitions for what constitutes qualified biogas property, that hydrogen energy storage property doesn't need to store hydrogen that is solely used as energy, and that the owner of underground geothermal coils can claim a tax credit if they own at least one heat pump used in conjunction with the coils. [Read more](#)

Your Indoor Air's Dirty Secret Is Under Your Feet

In this feature by WIRED, journalist Lisa Wood Shapiro reports on an air quality cabin experiment she conducted in a Maine cabin this past summer. She tested air purifiers, food dehydrators and indoor air quality monitors, tracking outdoor air quality, monitoring the indoor air and watching the numbers climb in their predictable pattern when she used her stove. A couple weeks into the experiment, Shapiro noticed odd spikes in PM_{2.5} for seemingly no reason. [Read more](#)

Coordinating ASHRAE Standards: How to Do a Combined Standard 62.1/170 Ventilation Calculation

By Abdel K. Darwich, P.E., C.Eng., HFDP

This article discusses a simple, easy-to-use method that would not yield any under- or over-ventilation used in "mixed" systems serving spaces regulated by ASHRAE Standard 62.1, *Ventilation and Acceptable Indoor Air Quality*, and ASHRAE/ASHE Standard 170, *Ventilation of Health Care Facilities*. [Download here](#)

ASHRAE News



I AM ATTENDING THE

ASHRAE 2025 ASHRAE
WINTER CONFERENCE

ORLANDO, FEB 8-12 | AHR EXPO, FEB 10-12

ashrae.org/2025winter

The [2025 ASHRAE Winter Conference](https://ashrae.org/2025winter) takes place Feb. 8-12 in Orlando. This conference offers an unparalleled technical program addressing HVAC&R industry issues with carefully selected panels, debates, workshops, forums, seminars, and paper sessions from over 300 leading experts.

AHR Expo : See what's new from the industry's major manufacturers, innovative start-ups, and everyone in between as 1,600 exhibitors put the latest products and technology on display. Your conference badge provides entry to the AHR Expo.

ASHRAE News

List of upcoming Meetings for 2025 Year

Monday, January 13th - Lunch Meeting / Theme: TBD

Monday, February 17th - Lunch Meeting
Theme: Membership Promotion & HARDI

Monday, March 10th - Lunch Meeting / Theme: Joint Mtg with AIA

Wednesday, April 16th - Evening Meeting (Technical Tour)

Looking ahead, we're organizing a Technical Tour that will include a look at a microgrid, a hydrogen generator, and advanced cooling technologies for AI data centers. Save the date, and stay tuned for more details.

ASHRAE Technology Portal



Explore the ASHRAE Technology Portal – your ultimate destination for ASHRAE papers, articles, reports, PDFs, seminar recordings, and more! ASHRAE Members enjoy free access to ASHRAE Journal Articles and Research Reports. Plus, access ASHRAE Handbook PDFs, Standards, eLearning Courses, and more based on your membership benefits. Whether you're a member or not, you can purchase content directly from the portal or via subscriptions. Dive into the wealth of knowledge now. [Read more](#)

ASHRAE JOURNAL Podcast

ASHRAE Journal Podcast Episode 43

Occupancy in the Built Environment

Join guests Amr Suliman and Marina Topouzi for this episode on occupancy in the built environment. This slice on building occupancy covers ventilation, indoor environmental quality, resilience, harnessing data on occupant behavior and how building efficiency and indoor conditions can be improved for a healthier, optimized built environment.



Amr Suliman, Ph.D., Member ASHRAE, and Marina Topouzi, Ph.D.

[Listen](#)

How Heat Pumps Can Maintain Their Momentum in 2025 and Beyond

Over the past four years, numerous local, state, and federal policies have been signed into law to lower heat pump costs and spur adoption of the appliances. Now, advocates are assessing how to keep that momentum going under an incoming Trump administration. Fewer than one in five U.S. households have heat pumps today. Far more must install them to eliminate the roughly 10% of U.S. carbon emissions that come from burning fossil fuels in homes. To also replace the inefficient electric resistance heaters that tax the power grid and cost consumers, every U.S. household with heating would need to get a heat pump. [Read more](#)

DOE: Data Center Energy Demand Could Triple by 2028

Fueled by the rapid rise in artificial intelligence, data centers could triple their energy use by 2028, accounting for as much as 12% of the country's electricity consumption, according to a new report backed by the U.S. Department of Energy. The [findings from the Lawrence Berkeley National Laboratory](#) add to the flurry of warnings about the toll that data centers could take on the nation's electric grid. But administration officials say they're not concerned about the grid's ability to handle the needs of the growing industry. [Read more](#)

Giant Underground 'Batteries' Are Shaping the Future of Renewable Energy Storage

A study from several universities and national labs in the United States and Canada shows that large-scale deployment of long-duration energy storage isn't just feasible but essential for renewables to reach their full potential. It looked specifically at the Western Interconnection, a chunk of the grid that includes the western U.S. and Canada, plus a bit of northern Mexico. The study found that building more long-duration energy storage there would reduce electricity prices by more than 70% in times of high demand. [Read more](#)

Microsoft's New Data Centers Will Use a Water-Saving Cooling System

Microsoft revealed details of new approach to cooling data centers that won't lose water to evaporation.

The strategy will still use water, but it's contained in a closed-loop system where it flows past heat-generating processing chips, drawing off heat that it carries to chillers. Then the cooled water starts the journey all over again. Microsoft data centers gulped down roughly 33 million gallons of water per center in the last fiscal year, according to company estimates. [Read more](#)