

TC 8.5: Liquid to Refrigerant Heat Exchangers
Minutes ASHRAE 2025 Winter Meeting

**1791 Tullie Circle, N.E./Atlanta, GA 30329
404-636-8400**

TC/TG/MTG/TRG MINUTES COVER SHEET

(Minutes of all Meetings are to be distributed to all persons listed below within 60 days following the meeting.)

TC/TG/MTG/TRG No. TC8.5 DATE 02/10/2025

TC/TG/MTG/TRG TITLE Liquid to Refrigerant Heat Exchangers

DATE OF MEETING 02/10/2025 LOCATION Orlando, FL

MEMBERS PRESENT	YEAR APPT D	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE	
Nicholas Zupp ('26)	7/1/2021	Khaled Saleh ('25)	7/1/2021	<u>Cor. Members</u>	
Pratik S Deokar ('26) (YEA)	7/1/2023			Lorenzo Cremaschi	Justin Kauffman
Kashif Nawaz ('27)	7/1/2023			Vikrant Aute	Pedro Perez
Joe Huber ('27)	7/1/2023			Andrew Sommers	
Andreas Knoepfler ('25) (Int'l)	7/1/2021			Yirong Jiang	<u>Pro Cor. Members</u>
Benjamin Dingel ('26)	7/1/2023			Achim Gotterbarm	Muneeshwaran (YEA)
Gurunarayana Ravi ('26)	7/1/2023			Arindom Jordar	Sugun Tej Inampudi
Druv Hoysall ('28)	7/1/2023			Bradley Bock (Int'l)	
				Chris Keinath	<u>Guests</u>
				Stefan Elbel	L Collato Carballode (YEA)
				Zahid Ayub	Pengtao Wang
				Lorenzo Cremaschi	Timm Buehse
				Satheesh Kulankara	Vishwas Mehta (YEA)
				Harshad Inamdar	
DISTRIBUTION: All Members of TC/TG/MTG/TRG plus the following:					
TAC Section Head: Kevin Mercer, Kashif Nawaz			SH8@ashrae.net		
Research Liaison: Carl Huber Standard Liaison: Srinivas Katipamula Staff Liaison: Steven J Hammerling Handbook Liaison: Derek Crowe			srinivas.katipamula@pnnl.gov shammerling@ashrae.org derek.crowe@stantec.com		
Mike Vaughn, Manager Of Research & Technical Services			MORTS@ashrae.net		

YEA: Young Engineers in ASHRAE, Int'l: International Members, from outside USA and Canada

Note: These draft minutes have not been approved and are not the official, approved record until approved by the TC.

1. Monday, February 10, 2025, 2:30 PM. Call to order and reading of TC 8.5 scope (N. Zupp):

TC 8.5: Liquid to Refrigerant Heat Exchangers

Minutes ASHRAE 2025 Winter Meeting

- *TC 8.5 is concerned with the thermal and mechanical design, performance, and application of devices for accomplishing heat transfer between refrigerants (including secondary refrigerants) and liquids.*

2. Introduction of members and guests (in-persona and virtual)

3. ASHRAE Code of Ethics Commitment (A. Ayub)

- *“Commitment to the ASHRAE Code of Ethics – In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests.*
(See full Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>)
- Shared ASHRAE’s Commitment of Health and Safety of the members and conference attendees.

4. Establish quorum requirements (A. Ayub)

- 8 out of 10 voting members present, quorum established. Kashif came in later for a total of 9 members (five present).

Nicholas Zupp (chair) '26	Andreas Knoepfler '25	Khaled Saleh '25	
Pratik Deokar (Vice Chair) '26	Benjamin Dingel '26	Justin Kauffman '28	
Kashif Nawaz ('27) [joined the meeting later]	Gurunarayana Ravi, '26		
Joe Huber '27	Druv Hoysall '27		

- Shared e-mail aliases of subcommittee chairs in attached presentation.

5. Review/approve minutes from previous meeting with corrections (N. Zupp)

- Motion to approve minutes made by J. Huber
- Seconded by Andreas
- The vote was 8-0-0-2

6. Handbook subcommittee report (A. Joardar)

- TC is responsible for editing Chapter 39: Condensers and Chapter 42: Liquid Coolers. None of them are in revision.
- There is a 4 year cycle. Arindom will check when they are next going to be due for revision. He will bring this info on next meeting. Was not able to attend this time. Plan to attend handbook training next meeting.
- The chapter edits can be done only through authoring portal (authoring.ashrae.org) in PDFs, and is suggested to leave the Track Changes on whenever possible
- Future edits will be for 2028 Handbook version

7. Program subcommittee report (P. Mehdizad)

- Proshat provided update per slides. Do not have any programs on this conference. Submitted “State of the Art liquid to refrigerant HX”. Were not able to secure any speakers.
- Asking for suggestions. Feb 26 is deadlines.
- Proshat suggesting submitting something to Industrial track in ASHRAE.
- 3 weeks left to submit something for the summer conference.
- Suggest submitting state of liquid to refrigerant HX for the winter conference.
- Suggestions for potential speakers.
- Proshat will reach out to Pratik 1.3 to resubmit.

8. Standards subcommittee report (J. Huber)

- TC 8.5 is responsible for ANSI/ASHRAE Standard 22-2023, 24-2019, and 181-2023

TC 8.5: Liquid to Refrigerant Heat Exchangers

Minutes ASHRAE 2025 Winter Meeting

- Std 22 and 181 were recently revised and published after revision in 2023.
- STD 24 is being revised. Needs to have an outdated normative reference removed. ASHRAE Guideline 2 that has been withdrawn. The adjustments have to do with the uncertainty analysis based on the withdrawal of that guideline. The TC formed an SPC to revise the standards. The SPC met one time and have a publication basically ready. The SPC needs to meet again soon to approve it. The meeting might be end of this month or March there will be an online meeting. Once they have the publication draft it will go to public review. Members to stick around after meeting to schedule the meeting.

9. Webmaster report (P. Perez)

- Website is up to date.

10. Research subcommittee report (K. Nawaz)

- Update from the Research Sub-Committee Chairs' Breakfast Meeting
 1. RAC is responsible for different technical activities related to research
 2. ASHRAE Strategic Plan 2021 is available online, and it is in the process of being updated and feedback can be provided
 3. There was a discussion on the budget for multiple years
 4. There had been reduction in the budget, and backlog of activities to be funded
 5. This year on, RAC has no backlog of approved work, and statements are ready to prepared
 6. There are going to be some changes; like better guidelines for work statements to added details to what should be the approximate budget, level of compensation, and actual student numbers, mention about exploring co-funding opportunities or provide cost share, names of potential bidders in the work statement
 7. ASHRAE has been putting the bid announcements on social media and as such, and from this year there is a good response to them
 8. Service to ASHRAE award process in place where a score sheet can be filled in to identify candidates
 9. RTARs and work statements needs clear and specific milestones, they also need details of previously addressed comments to ensure new people can understand previously done work based on comments and feedback
 10. In proposal revision process, everybody who is part of this activity has to be proactive and fair, and RAC has the authorization to revoke with justification, bidders information must remain confidential
- 1683-RP "Experimental Evaluation of Two-Phase Pressure Drop and Flow Pattern in U-Bends with Ammonia" (PMS Chair Z. Ayub; co-sponsor with TC 1.3, Co-PI is L. Cremaschi and PI is GIK). Update by Joe Huber.
 1. Presentation given at research review meeting. It was likely the final presentation. Work is done. Experimental portion and correlation development. Yesterday looked at correlations for pressure drop. Success matching correlation to data. Flow visualization was presented. Glass tubes with u-bends. PMS has the final version of the report. Project scheduled to end of February. Since all that is missing is the report they do not need to do extension. PMS will review the report and make recommendation to the TC.
- RTAR and Work Statements
 1. Activities are light at the moment. Two seminars, 13 and 28. One sponsored, one cosponsored.
 2. Two research projects RP1806, was initiated before the pandemic. Scope of the project was large. Pilot phase first. Evaluate by PMS and MTG and later determine whether we will continue to next phases.

TC 8.5: Liquid to Refrigerant Heat Exchangers

Minutes ASHRAE 2025 Winter Meeting

3. RP1884 It is at its last stages, Sent to PMS. Not on the ASHRAE website yet.

- RTAR: “Condensation heat transfer of novel low GWP refrigerants on enhanced tube bundles including effects of non condensables”

11. Report from Chair’s Breakfast (N. Zupp)

- Updated from CEC. 198 programs submitted, 75 accepted, 113 programs with paper sessions.
- Government Affairs Committee (GAC): You are welcome to email them if you have any questions about them.
- GTIC: Deals with ASHRAE’s role working with international standards organizations (4, 5 specific areas under that).
- Publications Committee: PTAR (Publication Topic Acceptance Request). Publication proposal similar to Research Proposal that can get funded through ASHRAE.
- Received training on TC roster.

12. Section Head comments (K. Nawaz)

- A survey needs to know how many TC members attend regional chapter meetings
- There should be diverse and balance voting members in between academia and industry

13. Membership subcommittee report (S. Kulankara)

- In TC chair training they summarized the requirements for membership. Vice Chair and Chair need to be ASHRAE members but not voting members.
- TC has a healthy roster 100 members. 18 provisional corresponding members. Term expires in 2 years. All provisional corresponding members received an email asking whether they want to become corresponding members. 11/12 responded yes. Satheesh will send the list. 10 YEA members. Try to attract more YEA members, if possible, to the committee. Push to get younger members involved. 2 or 3 YEA members in attendance.
- Voting members are rolling off after the summer meeting in Phoenix: Khaled Saleh. Mike Wilson, Achim and Andreas. Efram is interested.
- We are heavy on manufacturers. Anybody who is a user of heat exchangers or academia is encouraged to join.

14. MTG Liaison (S. Kulankara)

- MTG meet on Wednesdays of the conference. Last meeting on 6/26/2024 at Indianapolis
- Two programs at Orlando: Seminars 13 and 28
- Research:
 - RP 1806 “Flammable Refrigerants Post-Ignition Simulation and Risk Assessment Update”
 - Recommendation on Go/No Go on next phases of the project awaited
 - RP-1884 “The incorporation of odorants in flammable refrigerants to improve leak detection (Experimental Phase III)”
 - Expected to be completed soon
- Codes and Standards subcommittee continues to track updates to various codes and standards related to the use of lower GWP refrigerants
- Research proposal discussed on devaluation of refrigerant charge in equipment
- Codes and Standards subcommittee monitors developments from around the world standards, and they have a ppt sides with updates.

TC 8.5: Liquid to Refrigerant Heat Exchangers
Minutes ASHRAE 2025 Winter Meeting

15. New Business
None

16. Next meeting
Phoenix 21-25 June. Two hotels are listed in presentation. Meetings on both hotels.

17. Adjourn
No need to make a motion since it is in the Agenda per ASHRAE rules.

Attached: Meeting Slides

ASHRAE Technical Committee 8.5

Liquid to Refrigerant Heat Exchangers

Welcome

ASHRAE is committed to the health and safety of our members and conference attendees.

- Masks may be worn at the individual's discretion. Masks are not required inside the conference hotels but are strongly encouraged.
- Hand sanitizing stations will be positioned throughout the meeting space.
- If symptoms develop, attendees should NOT attend sessions and can join the conference virtually.
- If an attendee tests positive while at the conference, he or she may quarantine at the conference hotel at their own expense and should report the positive test to ASHRAE staff.
- **View the full Commitment to Care at [commitment-to-care.pdf \(ashrae.org\)](#)**

TC 8.5 Liquid to Refrigerant Heat Exchangers



Sign in through ASHRAE Website
Or

On the Old Fashioned Paper Going Around

- **Audio**

- Do not un-mute your line
- If you are joining via computer and phone line, ensure both are muted

- **Video**

- Be mindful that you are on display!
Turn off your video when needed.

- **Q&A**

- Use the chat function to ask questions
- Our speaker will pause throughout the presentation to answer questions from the chat box.

TC 8.5 Call to Order and Scope

ASHRAE Technical Committee 8.5 Liquid to Refrigerant Heat Exchangers

TC 8.5 is concerned with the thermal and mechanical design, performance, and application of devices for accomplishing heat transfer between refrigerants (including secondary refrigerants) and liquids.

ASHRAE Code of Ethics

In ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and shall avoid all real or perceived conflicts of interest. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We celebrate diverse and inclusive communities, understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and the communities our Society serves. We respect and welcome all.

Code of Ethics - <https://www.ashrae.org/about/governance/code-of-ethics>

Core Values - <https://www.ashrae.org/about/ashrae-s-core-values>

Introduction of Members and Guests

Introduction of our members and guests...

Please give your name and affiliation, and any TC 8.5 committee duties you have.

In-person attendees will go first

- Please be sure to note your attendance on the sign-in sheet.

Online attendees will go next

- Wait for a brief pause, and then speak. Remember to unmute before speaking, and then mute again after you have finished speaking.
- Please send an email to TC0805@ashrae.net with subject “attendance 2/9” so we can log your attendance. Make sure the email contains your full name and please indicate if you are a YEA member.

Quorum Determination

- Nick Zupp (chair) '26
- Pratik Deokar (Vice Chair) '26
- Kashif Nawaz '27
- Joseph Huber '27
- Andreas Knopfler '25
- Benjamin Dingel '26
- Gurunarayana Ravi '26
- Dhruv Hoysall '27
- Khaled Hassan Saleh '25
- Justin Kauffman '28

**_7_ Voting Memebers Present
Of 10
Quorum Achieved**

Voting Members roll off after June 30 of the year indicated

Current Positions on TC and Email Aliases

- Nick Zupp – Chair (TC0805@ashrae.net)
- Pratik Deokar - Vice Chair (TC0805.VCH@ashrae.net)
- Pedro Perez – Secretary (TC0805.SEC@ashrae.net)
- Proshat Mehdizad – Program (TC0805.PRO@ashrae.net)
- Pedro Perez – Webmaster (TC0805.WEB@ashrae.net)
- Kashif Nawaz – Research (TC0805.RES@ashrae.net)
- Joe Huber – Standards (TC0805.STD@ashrae.net)
- Arindom Joarder – Handbook (TC0805.HBK@ashrae.net)
- Satheesh Kulankara – Membership
- Satheesh Kulankara – MTG LGWP Representative
- Vikrant Aute – MTG LGWP Representative (Alternate)

- The full list of aliases can be found on the Technical Committees page on the ASHRAE website

Approval of Minutes from Annual Meeting

- Minutes from the Annual Meeting were sent out 4 February 2025
 - Does anyone want to review?
 - Motion for Approval: Joe Huber
 - Second: Andreas
 - Vote
 - For Approval: 8
 - Against approval: 0
 - Abstain: 0
 - Not Present: 0

TC8.05 Handbook

- Arindom Joarder is Handbook subcommittee Chair
- TC 8.5 is responsible for Chapters 39 and 42 of the ASHRAE HVAC Systems and Equipment Handbook
- Handbook in pdf version available through the technology portal of ASHRAE (technologyportal.ashrae.org)

Handbook Liaison (our chapters): Derek Crowe (derek.crowe@stantec.com)

Did the Handbook chair attend training? __no__

TC8.05 Handbook

Data for TC Activity Form

Handbook Responsibilities		
Total Number of Chapters	2	
Chapter(s) approved at this meeting	0	
Special Publications (last six months)	0	Title(s):



TC 8.5: Liquid to Refrigerant Heat Exchangers

Program Subcommittee Updates

Proshat Mehdizad



- Hybrid conference, February 8-12, 2025
- 9 Tracks with a mixture of live and on-demand sessions, available for 18 months
- Seminars, Paper Session, Forum, Workshop, Round Tables
- Social events:
 - Welcome party
 - Women in ASHRAE
 - Members night out

Winter Conference, Orlando, FL, Feb 8-12, 2025

Tracks:

- Fundamentals and Applications
- HVAC&R Systems and Equipment
- Refrigerants & Refrigeration
- Energy Storage and Grid Resiliency
- Pathway to Building Decarbonization
- Artificial Intelligence
- Industrialized Construction: Opportunities and Challenges
- Ventilation and Indoor Environment Quality
- Future-Proofing the Built Environment



TC 8.5 submitted programs for Winter 2025

- Seminar session
- TC 8.5 and TC 1.3 Tried planning a seminar on “State of the Art Liquid to Refrigerant HX”
- Not enough speakers

Summer Conference, Phoenix, AZ, June 21-25, 2025

Tracks:

- Fundamentals and Applications
- HVAC&R Systems and Equipment
- Research Summit
- Workforce Development
- Industrial Ventilation Refrigeration, Air-conditioning and Energy Utilization
- Heat Pumps, refrigerants and Decarbonization
- Onsite Energy Storage

Deadlines:

- November 30, 2024
Conference Paper Abstract Due
- December 13, 2024
Conference Paper Abstract Accept/Reject
- February 26, 2025
Other Programs Proposals Due
- March 5, 2025
Extended Abstract Paper/Conference Due
- April 2, 2025
Conference Papers Accept/Reject
Notifications
- April 11, 2025
Other Programs Accept/Reject
Notifications

Future Programs

- ASHRAE Summer Conference, June 21-25, 2025, Phoenix, AZ,
- ASHRAE Winter Conference, January 31-February 4, 2026, Las Vegas, NV

Discussion

- Program Ideas for Future Summer and Winter Conferences
 - “State of the Art Liquid to Refrigerant HX”
 - Suggestion on potential speakers?

Ideas for New programs: None

TC8.05

Data for TC Activity Form

Program Activities (For This Meeting)											
Total # of Forums			Total # of Seminars			Total # of Debates			Total # of Paper Sessions		
Submitted*	Accepted*	Co-sponsored**	Submitted*	Accepted*	Co-sponsored**	Submitted*	Accepted*	Co-sponsored**	Submitted*	Accepted*	Co-sponsored**
0	0	0	0	0	0	0	0	0	0	0	0
Other Presentations											
TC Research Results						Other Papers***					

Did the Program Subcommittee chair attend training? _____

TC8.05 Standards

- Joseph Huber is the TC8.05 Standards Subcommittee Chair
- **TC 8.5 is responsible for the following Standards:**
 - ANSI/ASHRAE Standard 22-2023
Methods of Testing for Rating Liquid-Cooled Refrigerant Condensers
 - ANSI/ASHRAE Standard 24-2019
Methods of Testing for Rating Evaporators Used for Cooling Liquids
 - ANSI/ASHRAE Standard 181-2023
Methods of Testing for Rating Liquid to Liquid Heat Exchangers
- **The revision and publication process was recently completed for**
 - Standard 22-2023
 - Standard 181-2023

TC8.05 Standards

- TC 8.5 voted to revise Standard 24-2019 to correct:
 - Remove normative reference to ASHRAE Guideline 2 (Engineering Analysis of Experimental Data)
 - Guideline 2 has been withdrawn, and Guidelines should not be referenced normatively, since they suggest practices and procedures, not mandate them
 - Fix other out-of-date references
- The SPC was approved at the 2024 Annual meeting
- The SPC met on 10/31/2024
- A publication draft has been developed, and the SPC will be meeting soon to approve it.

TC8.05

Data for TC Activity Form

Standards Responsibilities	
Total Number of Standards	3
# Standards recommended	0

TC8.05 Webmaster



Liquid-to-Refrigerant Heat Exchangers
ASHRAE Technical Committee 8.5

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[Membership](#)

[Meetings](#)

[Documents](#)

[Functions](#)

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Agenda

TC805 2025 Winter Orlando Agenda 20250210

Committee Chair

Mr Nicholas G Zupp
TC0805@ashrae.net

Committee Scope

TC 8.5 is concerned with the thermal and mechanical design, performance, and application of devices for accomplishing heat transfer between refrigerants (including secondary refrigerants) and liquids.

[More](#)

Upcoming TC Meetings

Location:	Hilton Orlando Orlando, FL
Date/Time	Room/Access
TC 1.3 / 8.5 Research Review Meeting Sunday, February 9, 2025 3:00 PM–5:00 PM EST	Hilton Orlando, Key West B (Lower Level) Virtual Access: Click Here.
TC 8.5 Liquid to Refrigerant Heat Exchangers Monday, February 10, 2025 2:30 PM–5:00 PM EST	Hilton Orlando, Florida 3 (Lower Level) Virtual Access: Click Here.

[See More](#)

Upcoming Society Conferences

ASHRAE 2025 Winter Conference
February 8–12, 2025
Orlando, FL

Minutes

[TC0805 2024 Annual Indianapolis Minutes \[Draft\] 20240624](#)
[TC0805 2024 Winter Chicago Minutes 20240122](#)

- **TC 8.5 Website is up-to-date:**
- TC Meeting Schedule ✓
- Orlando Meeting Agenda ✓
- Indianapolis [Draft] Meeting Minutes ✓
- Chicago Approved Meeting Minutes ✓

TC8.05 Research

- Kashif Nawaz is the TC8.05 Research Subcommittee Chair
- Did Research Chair attend breakfast?_____

TC8.05

Data for TC Activity Form

Current Research Activities (active)	
# of new/revised RTARs submitted	0
# of other active RTARs	1
# of new/revised Work Statements submitted	0
# of other active Work Statements	0
# of active TRPs	0
# of active RPs	0
# of RPs completed & approved at this meeting	0
Problems getting RTAR/WS approved?	YES

TC8.05 MTG.LowGWP – Update from Summer 2024

- MTG meet on Wednesdays of the conference. Last meeting on 6/26/2024 at Indianapolis
- Two programs at Orlando
 - Seminars 13 and 28
- Research
 - RP 1806 “Flammable Refrigerants Post-Ignition Simulation and Risk Assessment Update”
 - Recommendation on Go/No Go on next phases of the project awaited
 - RP-1884 “The incorporation of odorants in flammable refrigerants to improve leak detection (Experimental Phase III)”
 - Expected to be completed soon
- Codes and Standards subcommittee continues to track updates to various codes and standards related to the use of lower GWP refrigerants

TC8.05 Membership

- Term Limits Chair
 - 2 years with a 1 year extension through the approval of the Section Head;
 - The Chair's term is not limited by the policy limiting normal Member and Member Non-Quorum reappointments to four (4) consecutive terms.
- Vice Chair
 - 2 years;
- Chair and Vice Chair MUST BE ASHRAE members!
- The Chair should have served at least one one-year term as Vice Chair or Secretary.
- Corresponding Members can serve in all TC management positions except Chair.
- Refer to the FG Reference for more details

TC8.05 Membership

- Healthy roster with 100 members
 - 10 YEA members
 - 18 Pro CM
- The following are rolling off as voting members after the June 2025 Meeting
 - Andreas Knopfler
 - Khaled Hassan Saleh
- After June 2025 we will be down to 8 voting members
 - We should add between 2 and 4 new voting members
 - We are heavy on manufacturers
 - We could use some academic voting members and general interest

TC8.05 Chair Report

- TC Chairs Meeting at 7:00 AM Sunday Morning (2/9/2025)
- Topics Reviewed
 - Technical Activities Committee (TAC) Update
 - Center of Excellence for Building Decarbonization (CEBD) Update
 - Conferences and Expositions Committee (CEC) Update
 - 198 programs submitted – 75 accepted, 113 programs with paper sessions
 - Government Affairs Department (GAC) Update – GovAffairs@ASHRAE.org
 - Global Technical Interactions Committee (GTIC) Update
 - ASHRAE's role in the Globalization of Standards
 - Publications Committee Update
 - College of Fellows Information
 - Roster Update Training Section
 - Breakout Sessions

TC8.05 New Business

- TBD

TC8.05 Next Meeting

The next TC meeting:

- Phoenix, AZ
- 21 June to 25 June 2025
- Hotels
 - **Sheraton Phoenix Downtown**
Headquarter Hotel | 340 N 3rd St, Phoenix, AZ 85004
\$189 + tax per night
 - **Hyatt Regency Phoenix Downtown**
122 N 2nd St, Phoenix, AZ 85004
\$159 + tax per night

TC8.05

TC8.05



FG Chair's Breakfast Meeting

Orlando
February 9, 2025

AGENDA



- TAC Update
- CEBD Update
- CEC Update
- GAC Update
- GTIC Update
- Publications Committee
- College of Fellows
- Roster Update Training
- Section Breakout Session



TAC Update

TAC Update



- **YEA Mentor's Program during Winter and Annual Conferences**
- www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs/ashraeconnect
- **Automated Activity Forms Project**
 - Streamline data metrics to help the society better serve membership and identify strategic areas of interest

2025-2028 Strategic Plan & Initiatives



MISSION:

To serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration and their allied fields.

VISION:

A healthy and sustainable built environment for all.



STRATEGIC GOALS

1

Position ASHRAE as the **global leader** in advanced solutions to improve indoor environmental quality (IEQ) and address climate change.

2

Pursue **impact-focused engagement** by targeting stakeholders to support a strong workforce and maximize utilization, adherence, and trust of ASHRAE's global expert resources.

3

Increase the **accessibility** of ASHRAE content, resources, and member opportunities.

OBJECTIVES

- a. Lead the development of widely adopted standards to support indoor environmental quality, decarbonization, and resilience.
- b. Develop alliances and diverse working groups that position ASHRAE to lead and collaborate globally in identifying challenges, defining solutions, and developing approaches to address them.
- c. Develop resources based on member needs and industry trends.

- a. Tailor and target engagement and resources to ASHRAE members and defined key stakeholders.
- b. Provide guidance to targeted stakeholders on impactful ways to maximize the positive downstream effect of their engagement on the built environment.
- c. Empower professionals in their journey to maximize industry impact in support of ASHRAE's mission and vision.
- d. Pursue partnerships to amplify the impact of ASHRAE's mission and support the HVAC&R and built environment workforce.

- a. Identify and address structural, content, and financial barriers to access.
- b. Align communication and delivery methods and formats to enhance accessibility and effectiveness of content, resources, and volunteer opportunities.
- c. Strengthen communication channels with and through chapters and regions to empower contribution to the Society as thought partners in adapting resources to local context and needs.

Shaping Tomorrow's Global Built Environment Today



KEY ENABLERS

- **Research:** The value of ASHRAE's resources is grounded in unbiased data, developed through rigorous research methods.
- **AI:** The use of AI enables ASHRAE to improve data collection, automate internal operations, and promote agility.
- **Global Network:** ASHRAE's global network convenes the industry to generate unparalleled knowledge and content.

STRATEGIC INITIATIVES



Healthy, Sustainable and Resilient Communities

Providing a healthy, productive and resilient indoor environment, while minimizing greenhouse gas emissions, is critical to today's built environment. Further, global stakeholders' leveraging of ASHRAE's standards and technical resources presents an opportunity for ASHRAE to solidify global leadership in supporting healthy, sustainable and resilient communities. ASHRAE prioritizes timely identification of industry trends, expedient content development, and forges key partnerships to advocate and collaborate with industry.



Empowered Workforce

The development of a skilled, competent, and solutions-oriented workforce is critical to addressing the challenges facing the built environment and the HVAC&R industry, today and in the future. ASHRAE continues to provide educational and professional development resources. Our members and industry partners need these tools to implement key initiatives such as decarbonization, resiliency, and indoor environmental quality goals and policies. ASHRAE, with the support of our chapters and regions, partners with key industry stakeholders in tackling the unique workforce challenges facing the industry globally.



Organizational Agility

ASHRAE's ability to serve communities, the industry, the current and future workforce, and provide value to its volunteer members, is dependent on forward-looking products, services, and solutions. ASHRAE will use emerging technologies to support the development of resources and knowledge flow between ASHRAE's chapters, regions, technical bodies, and the industry, harnessing organizational and operational efficiencies.



Emerging Technologies

In today's rapidly evolving landscape, emerging technologies are revolutionizing the built environment and HVAC&R industry, expanding numerous career opportunities. By combining technological advancements such as AI with human creativity, both seasoned professionals and new talent can collaborate to drive industry-wide progress. Advanced automation and AI-enabled systems propel energy efficiency and smart buildings, enhance comfort and IEQ, improve operations and maintenance, and deliver holistic and sustainable solutions for industry professionals. ASHRAE engages in a thoughtful process to evaluate and prioritize opportunities to leverage new technologies.

OUTCOMES

- ASHRAE's member and volunteer base maximizes the organization's reach, foresight, leadership position, and organizational knowledge.
- A broad group of stakeholders leverage ASHRAE's resources to make decisions and meet objectives that positively affect the environment.
- A viable, thriving industry makes a positive global impact.



Center of Excellence for Building Decarbonization (CEBD) Update

CEBD Organizational Structure



Center of Excellence for
Building Decarbonization

BOD

BOD ExCom

**Center of Excellence
for Building
Decarbonization
(CEBD)**

Members Council

**Publishing &
Education Council**

Technology Council

CEBD Responsibilities



- ***Primary Responsibilities***

- Strategy
- Thought Leadership
- Collaboration
- Public Advocacy

- ***Supporting Activities***

- Technical Resources
- Technical Review
- Standards Coordination
- Training Development
- Resource Internationalization
- Member Engagement
- Development

Strategic Partnerships

- Streamlined Flexible Codes
 - MOU with IEA presented at COP 29
 - Presented in UK, Sudan, Ghana
 - Flexible Code Framework for Indonesia
 - Net Zero World is funded by DOE
 - Piloted in 2025 by Berkley Lab funding
- United States White House
 - A3 refrigerants
- International Energy Agency (IEA)
- Française de Normalisation (AFNOR)
- Department of Energy (DOE)
- Air Conditioning, Heating and Refrigeration Institute (AHRI)
 - PCR Standard Coordination
 - CEBD Liaison
- United States Green Building Council (USGBC)
- Chartered Institute of Building Services Engineers (CIBSE)
- Others?

Member's Council Activities



- Chapter Technology Transfer
 - Presentations at Chapter Meetings
 - Development of 45 Minute Presentations for chapter meetings
- Government Affairs
 - Update Public Policy Information Briefs
 - Update GAC Presentation on Decarbonization
 - Eunice Foote Decarbonization Award



Member's Council Activities



- Honors & Awards
 - Eunice Foote Decarbonization Award
- Membership Promotion
 - Decarbonization Training & Education Priorities
- Young Engineers in ASHRAE
 - Decarbonization Challenge Fund



Paul Torcellini, NREL
2024 Eunice Foote Award Winner

Publication & Education Council Activities



- **Certification**

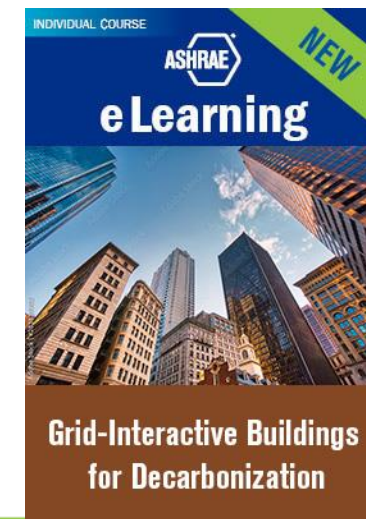
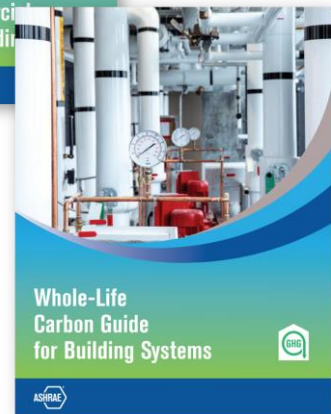
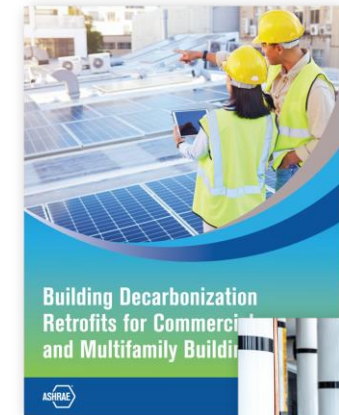
- New Certified Decarbonization Professional

- **Publications**

- *Building Decarbonization Retrofits for Commercial and Multifamily Buildings, Whole-Life Carbon Guide for Building Systems, Strategic Decarbonization Planning Guide*

- **Training & Education**

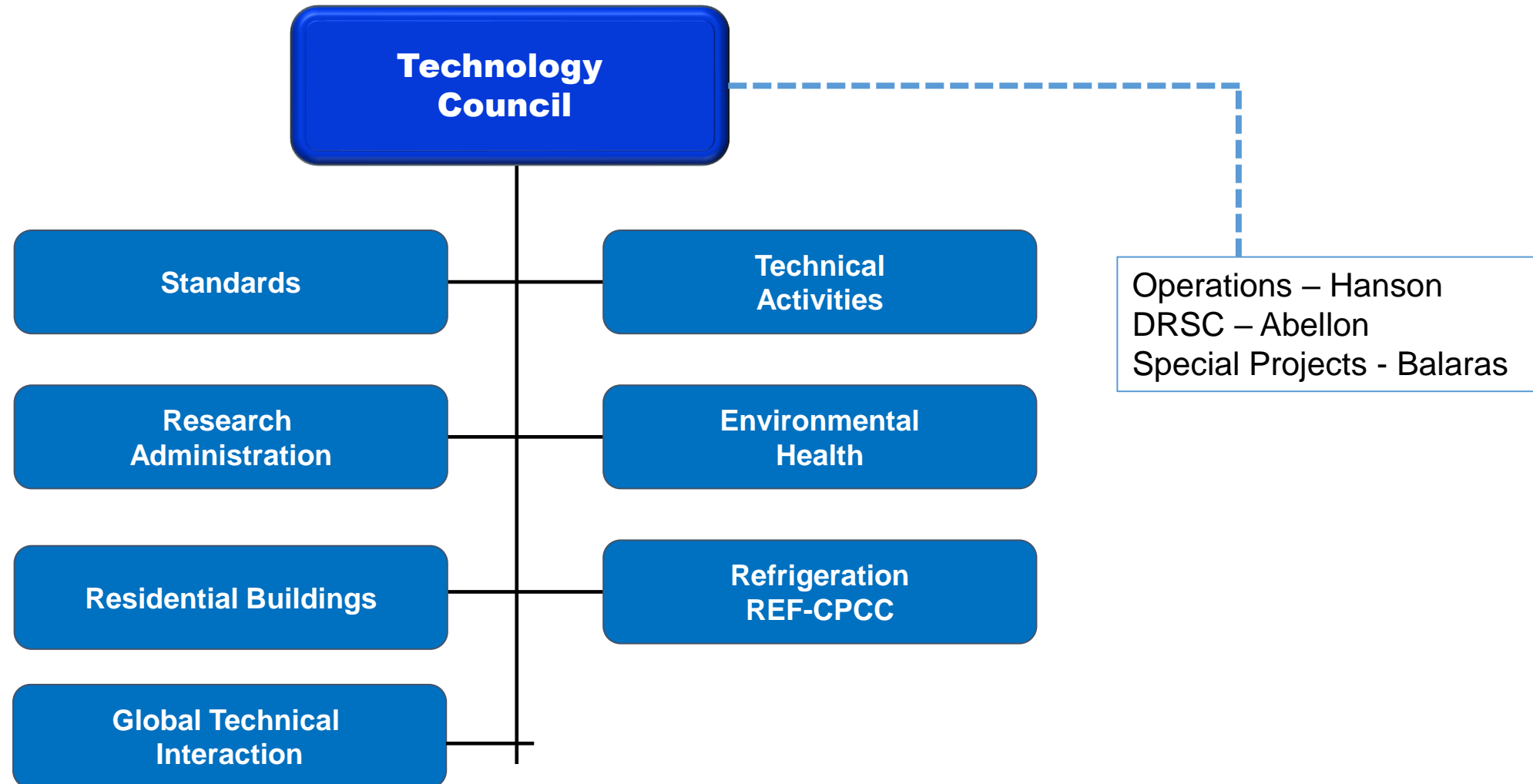
- Grid-Interactive Buildings for Decarbonization
 - Decarbonizing Hospital Buildings
 - Decarbonizing Building Thermal Systems
 - Building Decarbonization Retrofits for Commercial and Multifamily Buildings





Technology Council Activities

Technology Council



Special Projects

- Special Projects may be any **regular activity** of the Society that fits one or more of the following:
 - Performed outside of the ASHRAE research program
 - Require extensive effort
 - Cannot be accomplished entirely on a volunteer basis
 - Require accelerated approvals or activities
 - Funded in large part by outside sources
 - Performed in cooperation with other organizations
- NOTE: Not all co-funded and/or research projects are Special Projects, but a Research Project can also be a Special Project.

CEBD Proposed Project



Title: Evaluating Global ASHRAE Member Needs for Building Decarbonization Education

Scope: ASHRAE is a vital hub for scholarly exchange and professional growth in the HVAC&R discipline. With ASHRAE's global membership exceeding 50,000, understanding its members' diverse needs and expectations is essential. Within the evolving standards and technologies landscape, research to understand the needs of professional members using market research methods. Insights collected will help ASHRAE identify continuing education opportunities and tailor content to specific regional and international needs. It will also provide a research-driven, needs-based member segmentation to assist in targeting and tailoring specific education and training deliverables.

Collaborators: Internal

Timeline: 2024-2026

CEBD Proposed Project



Title: Refrigerant Emissions Management, Tracking and Compliance

Scope: Refrigerant emissions, particularly from HFCs, are projected to contribute 57.15 gigatons of CO₂ equivalent by 2050, significantly impacting climate change. Effective management of refrigerant leaks is crucial to mitigate their potent greenhouse effect, yet current systems lack centralized tracking, leading to regulatory non-compliance and inefficient recovery. The Refrigerant Leakage Database, managed by the DOE and informed by ASHRAE, will systematically track and manage refrigerant leaks across sectors, enabling precise leak monitoring and fostering compliance. This project aims to enhance environmental protection and potentially save operational costs, ensuring comprehensive field data integration and industry expertise.

Collaborators: DOE, EPA, UNEP

Timeline: 2024-2026

CEBD Proposed Project



Title:	Harmonizing Global Decarbonization Standards for Streamlined Compliance
Scope:	With the global building sector responsible for approximately 40% of energy-related CO ₂ emissions, ASHRAE recognizes the urgency of addressing decarbonization. Currently, selected countries have no holistic carbon regulations. Others have numerous standards tailored to specific regions, building types, and metrics, resulting in a fragmented landscape. ASHRAE's initiative aims to harmonize these disparate standards, especially between the EU and the US, through collaborative research, development, and adoption efforts. By aligning methodologies, terminology, and metrics, ASHRAE seeks to streamline decarbonization strategies, facilitating broader implementation and enhancing global impact. This project promises to offer clarity, consistency, and efficacy in the pursuit of a whole-life carbon approach.
Collaborators:	US DOE, Architecture 2030, International Energy Agency (IEA), World Green Building Council (WorldGBC)
Timeline:	2024-2025

CEBD Proposed Project



Title:	Streamlined, Flexible International Building Code Framework
Scope:	For all new buildings to be zero emissions ready by 2030, all countries must implement national building codes, along with enabling policies and programs, that will drive the market towards deep energy efficiency, net zero emissions, building electrification, low-GWP refrigerants, renewables integration, and demand flexibility. Eighty-two percent of the population growth through 2030 is expected in emerging economies, where many countries lack mandatory energy codes. This project seeks to develop a flexible building code framework with specific countries to streamline the development and adoption of consensus-based national/subnational model building codes, supporting tools, and training.
Collaborators:	US DOE, US State Department, PNNL, IEA, ICC, WRI, WBCSD, Climate Group, C40, WorldGBC, UNEP, GlobalABC, Australia, Canada, Germany, Namibia, Ghana, Colombia, Kenya, Vietnam
Timeline:	2024-2025

CEBD Proposed Project



Title: **Optimizing PCR Protocols for Enhanced EPD Precision in HVAC&R Manufacturing**

Scope: Establishing Product Category Rules (PCRs) is pivotal for standardizing environmental assessments in the equipment industry, aligning with the significance of Environmental Product Declarations (EPDs) for sustainability. Currently, gaps exist in PCR frameworks, hindering comprehensive evaluations. This project aims to bridge these gaps by developing robust PCRs, addressing data collection, life-cycle assessments, and third-party verification. Through the creation of customized PCRs, we enable manufacturers to produce precise EPDs. This allows all parties to make well-informed choices grounded in clear environmental performance data.

Collaborators: AHRI, CSA, ISO, GRI Standard 244P – Sustainability Assessment for Mechanical, Electrical, and Plumbing Products

Timeline: 2024-2026

CEBD Proposed Project



Title: Update HVAC Equipment Service Life Data

Scope: The project will update ASHRAE's equipment service life tables from 1978 and 2005 data. Determining the useful life of equipment is important to understand the embodied carbon impact of equipment replacement over a building's lifetime and in developing building decarbonization roadmaps. The source of equipment service life is Chapter 38 of the ASHRAE HVAC Applications Handbook. In 1978, ASHRAE published research project RP-186, which contained service life data for HVAC equipment. In 2005, research project TRP-1237 gathered updated data on equipment, but not as comprehensive as RP-186. Both data sets need updating due to new manufacturing processes and equipment categories.

Collaborators: AHRI

Timeline: 2024-2026

CEBD Proposed Project



Title:	Standardizing Whole Life Carbon Calculations for Building Systems
Scope:	The whole life embodied carbon impact of Mechanical, Electrical, and Plumbing (MEP) systems can constitute up to 50% or more of a building's total carbon footprint. It is, therefore, critical to understand and minimize the carbon contributions of these systems during the planning, design, construction, operation, and end-of-life phases of a building's lifecycle. This project aims to establish a consistent framework for calculating the embodied carbon of MEP systems, including the impacts of equipment, refrigerants, ducts, and piping. The anticipated outcome is a set of robust, practical methodologies adaptable to various building types and scalable across different project sizes.
Collaborators:	MEP 2040, CLF
Timeline:	2024-2026

CEBD Proposed Project



Title:	Decarbonizing Single-Family Homes: A Guide for Sustainable Retrofits
Scope:	Single-family homes, which represent a significant portion of the residential sector, contribute up to 18% of national GHG emissions. This emphasizes the importance of clear guidance to decarbonize these dwellings. Urban areas, responsible for a substantial share of emissions, further highlight the need for this project. It addresses retrofitting challenges in single-family homes by focusing on building electrification, envelope retrofitting, and the integration of renewable energy. This guide aims to consolidate data and strategies to streamline retrofit initiatives, thereby aligning with global and ASHRAE emission reduction targets.
Collaborators:	RBC, 90.1
Timeline:	2025

Questions



Thanks for the time.

- Special Projects Chair – Costas Balaras (costas@noa.gr)
- Tech Council Chair – Wade Conlan (wconlan@hanson-inc.com)
- Tech Council Vice Chair – Devin Abellon (dabellon@pwsigroup.com)

2025 ASHRAE WINTER CONFERENCE

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

TC Chair Breakfast

Conferences & Expositions Committee (CEC)

Maggie Moninski, Chair CEC

2025 Winter Program Statistics

Program	Proposals Submitted	Proposals Scheduled
Panel Sessions	9	3
Forum Sessions	18	3
Seminar Sessions:	158	63
Workshop Sessions	10	4
Debate Sessions	3	2
Total	198	75
Total with Paper Sessions		113



Upcoming Conferences

Annual Phoenix – June 21-25, 2025



Conference Chair : Craig Bradshaw, (crbrad@illinois.edu)

- **Fundamentals and Applications**
 - Atilla Biyikoglu (abiyik@gazi.edu.tr)
- **HVAC&R Systems and Equipment**
 - Ng Yong Kong (nyk@nyk.com.my)
- **Research Summit**
 - Haotian Liu (sjtulht@hotmail.com)
- **Workforce Development**
 - Anuj Gupta (anuj@design2occupancy.com)
- **Industrial Ventilation, Refrigeration, Air-Conditioning and Energy Utilization**
 - Vinod Venugopal (vinodpvgopal@gmail.com)
- **Heat Pumps, Refrigerants and Decarbonization**
 - Money Khanna (khannamoney@gmail.com)
- **On-Site Energy Storage**
 - Kevin Brown (kevin@kbsquared.net)

Key Dates - Phoenix



- **November 20, 2024:** Conference Paper Abstracts due
- **December 13, 2024:** Conference Paper Abstract Accept/Reject Notifications
- **January 3, 2025:** Website Opens for Seminar, Workshop, Panel, Debate, and Forum Proposals and Extended Abstracts
- **February 26, 2025:** Seminar, Workshop, Panel, Debate, and Forum Proposals Due
- **March 5, 2025:** Conference Paper and Extended Abstracts Due
- **April 11, 2025:** Seminar, Workshop, Panel, Debate, and Forum Accept/Revise/Reject Notifications

Winter Las Vegas – Jan 31-Feb 4, 2025



Conference Chair : Aaron Boranian (aaron.boranian@bigladdersoftware.com)

Tentative Tracks

- **Fundamentals and Applications**
- **HVAC&R Systems and Equipment**
- **Refrigeration and Refrigerants**
- **Research Summit**
- **Energy Storage and Grid Resiliency**
- **Pathways to Building Decarbonization**
- **Artificial Intelligence**
- **Advancements in Construction**
- **Ventilation and Indoor Environmental Quality for Healthy Buildings**
- **Future-Proofing the Built Environment**

Other details yet to be fully defined.

TC Program Subcommittee Training on Tues, February 11, 11:15am-12pm in room Clear Lake (Lobby Level) for more information.

Upcoming Conferences



Third International Conference on Energy and Indoor Environment for Hot Climates

- April 23-24, 2025 – Doha, Qatar

CLIMA 2025 (REHVA conference, organized and executed by AiCARR, and endorsed by ASHRAE)

- June 4-6, 2025 – Milan, Italy

2025 ASHRAE Conference for Integrated Design, Construction & Operations (call for presentations open)

- August 13-15, 2025 – Denver, Colorado

IEQ 2025 Conference

- September 24-26, 2025 – Montreal, Quebec, Canada

2025 ASHRAE Building Decarbonization Conference

- October 22-24, 2025 – Chicago, Illinois

Buildings XVI Conference

- December 8-11, 2025 – Clearwater Beach, Florida

- **TC Program Subcommittee Training**

- Tuesday February 11, 11:15 – 12:00 Clear Lake (Lobby Level)

Questions?



Maggie Moninski, Chair CEC
maggie.moninski@gmail.com

Kristen Cetin, Vice Chair CEC
cetinkri@msu.edu



Overview of Government Affairs Department

For TC/TG Chairs Breakfast Meeting – Winter 2025 - Orlando

Alice Yates
Director of Government Affairs
February 2025

Government Affairs Staff: Who Are We?



We have a team that is ready to support you!

Contact all of us at GovAffairs@ashrae.org



Alice Yates
Director



Jacob Karson
Advocacy & Outreach



Emily Porcari
State & Local



Bryce Causey
Federal



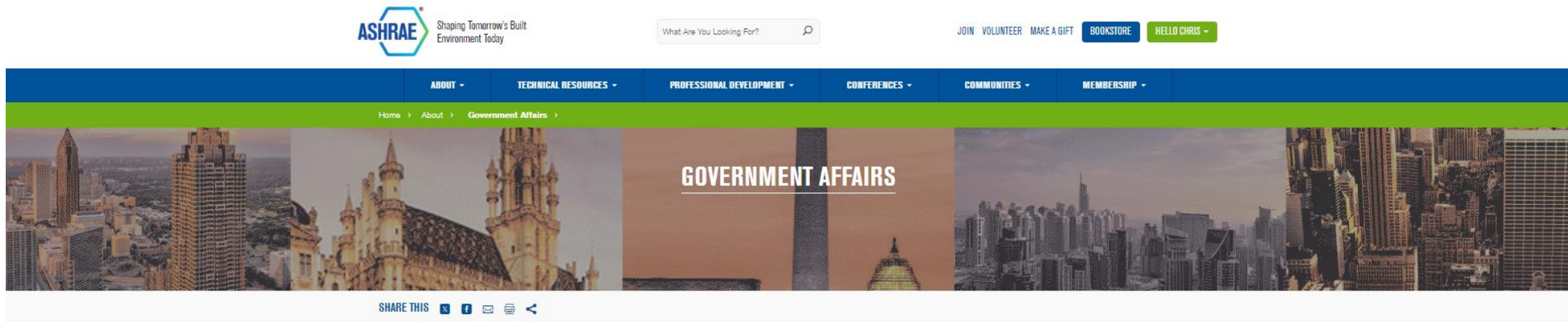
Neil Gavigan
Policy Analyst



Chris Miller
Office Manager

ASHRAE Government Affairs Website: a Multitude of Resources and Information

<https://www.ashrae.org/about/government-affairs>



Member Resources: Advocacy Toolkit

Find out how to get involved in communicating with elected officials and policy makers, including through the Government Affairs Committee and Government Outreach Days.

LEARN MORE



Policy Positions and Issues

ASHRAE Government Affairs staff regularly tracks activities within Congress, and Federal, State and Provincial legislative bodies. Access Position Documents, issue briefs, letters, and testimony on key policy areas of interest to ASHRAE.

LEARN MORE



Government Affairs Update

Stay Updated

This bi-weekly newsletter is the best way to keep up with news and notes on recent government activities in Washington, D.C. of interest to ASHRAE members and others. Keep connected to federal and state activities.

GET THE LATEST

What Staff Have Been Assigned To Do

ASHRAE Government Affairs Mission Statement:

- *To establish ASHRAE as a **leading source for expertise** in the built environment and a resource for policy-makers in the development of legislation and regulations affecting the public, the HVAC&R community, and the engineering profession.*
- To this end the ASHRAE Washington D.C. office will:
 - Build relationships between the Society and all levels of government in the United States and with the appropriate international community representatives.
 - Facilitate the transfer of **technical counsel** and assistance on matters affecting the public, engineering profession and ASHRAE professional community.
 - Collect, digest and disseminate to members and staff relevant information regarding current or anticipated government actions.
 - Pursue **technology transfer** and government funding opportunities independently or jointly with other appropriate organizations.

Key Areas of Focus for Government Affairs Staff

- Bi-Weekly Government Affairs Updates
- Support and planning for Government Outreach Events
- Tremendous Growth: **136 GOEs** in SY23-24



Public Law 110-140
110th Congress

An Act

To move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas capture and storage options, and to improve the energy performance of the Federal Government, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) **SHORT TITLE.**—This Act may be cited as the “Energy Independence and Security Act of 2007”.

(b) **TABLE OF CONTENTS.**—The table of contents of this Act is as follows:

Sec. 1. Short title; table of contents.
Sec. 2. Definitions.
Sec. 3. Relationship to other law.

TITLE I—ENERGY SECURITY THROUGH IMPROVED VEHICLE FUEL ECONOMY

Subtitle A—Increased Corporate Average Fuel Economy Standards

Sec. 101. Short title.
Sec. 102. Average fuel economy standards for automobiles and certain other vehicles.
Sec. 103. Definitions.
Sec. 104. Credit trading program.
Sec. 105. Consumer information.
Sec. 106. Continued applicability of existing standards.
Sec. 107. National Academy of Sciences studies.
Sec. 108. National Academy of Sciences study of medium-duty and heavy-duty truck fuel economy.
Sec. 109. Extension of flexible fuel vehicle credit program.
Sec. 110. Periodic review of accuracy of fuel economy labeling procedures.
Sec. 111. Consumer tire information.
Sec. 112. Use of civil penalties for research and development.
Sec. 113. Exemption from separate calculation requirement.

Subtitle B—Improved Vehicle Technology

Sec. 131. Transportation electrification.
Sec. 132. Domestic manufacturing conversion grant program.
Sec. 133. Inclusion of electric drive in Energy Policy Act of 1992.
Sec. 134. Loan guarantees for fuel-efficient automobile parts manufacturers.
Sec. 135. Advanced battery loan guarantee program.
Sec. 136. Advanced technology vehicles manufacturing incentive program.

- Tracking legislation and regulations, drafting letters and testimony, connecting members with agencies and elected officials, strengthening relationships with aligned organizations
- Supporting webinars, briefings, and hearings for policy makers
- GAC Staff Support

Recent Letters and Testimony

- 1-31-2025- [Letter Supporting Maryland HB 339, “Residential Rental Apartments – Air Conditioning Requirements”](#)
- 1-30-2025 [-Testimony on NE LB 163 to the NE Committee on Natural Resources](#)
- 1-29-2025- [Joint Comment Letter Supporting FEMA’s Public Assistance Mitigation Cost Share Incentives Policy](#)
- 1-23-2025- [ASHRAE Letter in Opposition to Hawaii Senate Bill 48 “Relating To Building Codes”](#)
- 1-23-2025- [ASHRAE Letter in Opposition to Hawaii Senate Bill 120 “Relating To Building Codes”](#)
- 1-17-2025- [ASHRAE Letter of Support of New Hampshire House Bill 93, "Requiring New Hampshire builders to use the 2021 Energy Building Codes"](#)
- 1-17-2025- [HVACR Alliance Letter to 119th Congress](#)
- 1-16-2025- [District of Columbia State Public Meeting on Indoor Air Quality in Schools](#)
- 1-12-2025- [Letter to European Commission with Technical Input on the Study for the review of Commission Regulation \(EU\) 2019/424 \(Ecodesign requirements for Servers and Data Storage products\)](#)

Recent Letters and Testimony (cont.)

- 11-12-2024- [FY25 EE Funding Ltr to Appropriators](#)
- 11-08-2024- [Comments re: Oregon Proposed Building Energy Performance Standards](#)
- 11-07-2024- [Response to DOE RFI on Frontiers in AI for Science, Security and Technology Initiative](#)
- 10-09-2024- [Comments re: Maryland Building Energy Performance Standard Regulation](#)
- 9-25-2024- [Green Building Groups Affirm Support for Zero Emissions Buildings](#)
- 9-19-2024- [NIST FY25 Support Letter](#)
- 9-13-2024 – [Letter to Vice President Harris Presidential Campaign Regarding Affordable Housing and Codes](#)
- 9-3-2024 – [Letter to New Jersey Governor Murphy on S. 2188, “An Act Concerning Legionnaires’ Disease”](#)
- 08-22-2024 - [ASHRAE Letter re: California Building Energy Performance Strategy Report](#)
- 07-18-2024 - [ASHRAE Letter of Support for the Pro Codes Act](#)
- 07-08-2024 - [Committee for the Study for the review of Commission Regulation 2019/424 \(Ecodesign of Servers and Data Storage Products\) Task 6 Design Options](#)

- Building code updates and revisions
- Indoor Air Quality - especially new IAQ requirements for schools
- Decarbonization/Electrification – majority of these bills are outside the scope of ASHRAE policy positions
- Data Centers
- Building Performance Standards
- Refrigerants
- Affordability – Costs

Shifts in Policy Focus

**IMPORT
TARIFF**





THREATS

- Climate, building decarbonization, energy efficiency regulations and tax incentives are under attack by some interests that believe:
 - Government is over-reaching
 - Regulations (including building standards/codes) could negatively impact jobs, the economy, and affordability
 - Scientific claims are unfounded
- ASHRAE's long-standing private-public partnership with government may be challenged:
 - Participation of federal government employees
 - Lawsuit against federal agencies (HUD and USDA) that use ASHRAE (and ICC) standards

43 Executive Orders, Presidential Memoranda, and Proclamations, including:

- Declaring a National Energy Emergency

Directs agencies to utilize their statutory emergency powers to speed up development and authorization of fossil fuel energy projects

- Unleashing American Energy

Calls for an immediate “pause in the disbursement of funds” appropriated through the Inflation Reduction Act and Investment Infrastructure and Jobs Act

Areas of Focus for the U.S. Congress

- Appropriations: March 14 deadline for FY25; Summer focus: FY26
 - Challenges with funding for our federal partners (DOE BTO, EPA ORIA, NIST)
 - Possible opportunities for report language to guide investments
- Budget Resolution and Reconciliation
 - Extension of 2017 tax cuts (\$5 trillion over 10 years per the CBO)
 - Possible elimination of tax incentives that support HVACR investments
 - Threats to non-profits like ASHRAE
- Congressional Review Act
 - Rules issued after August 16, 2024, are at risk of being overturned through a joint resolution of disapproval (several CRA bills already introduced)
 - DOE/EPA energy regulations at risk (water heaters, walk-in coolers/freezers, refrigerants)
- Possible EPCA Reform



PIVOTS

- Resilient and strong built environment – rather than climate change and decarbonization.
- Productive and healthy workplaces – rather than improved IAQ/IEQ.
- Economic growth from HVACR investments – rather than HVACR investments to improve sustainability and mitigate climate change.
- Reduction of waste, energy security, grid resiliency & reliability – rather than clean energy generation.
- Support for our military and jobs – rather than decarbonizing DOD.

ASHRAE is a private-sector organization that creates industry consensus-based voluntary standards



OPPORTUNITIES

- Private sector resources and public-private partnerships
 - National Technology Transfer and Advancement Act
- Electric grid under increased strain
 - Data centers / AI
 - Manufacturing
- Sustained interest in IAQ/Healthy buildings, especially in schools
- Resilience from natural disasters
- Affordability – energy efficiency saves money

- 46 state legislatures are currently in session; most will be in session through June
- Staff have reviewed approximately **3,000 bills**
 - **150** flagged as priority – and most relevant to ASHRAE
- Trends in state and local legislation:
 - Building code updates and revisions
 - Indoor Air Quality - especially new IAQ requirements for schools
 - Decarbonization/Electrification – majority of these bills are outside the scope of ASHRAE policy positions

Share your Expertise with Government Officials through the new “SMEs for GOEs” Program



- Policymakers and elected officials need your expertise to make better decisions as they craft legislation and regulations impacting HVAC&R and the built environment.
- The Government Affairs Committee (GAC) has developed a new program to identify Subject Matter Experts (SMEs) who can effectively communicate with non-technical audiences such as government officials
- **BE THE SOURCE** of technical expertise for these decisions!
- Scan the QR code to learn more and apply!
- Questions? Email GovAffairs@ashrae.org





Questions?

ASHRAE's Role in the Globalization of Standards

Global Technical Interactions Committee (GTIC) Activities



- On September 30, 2024, keynote speakers from Industry organizations presented their views on standardization leading to harmonization in Saint Denis, France.
- The main purpose is to bring attention to, and discuss, the opportunities in developing and using ISO standards to meet the global needs of decarbonization and energy efficiency in the built environment.
- The speakers provided an outlook on global trends to specific policies, regulations, and methods for alignment globally with Europe.
- [Link to Workshop presentations](#)

GTIC Survey Initiative

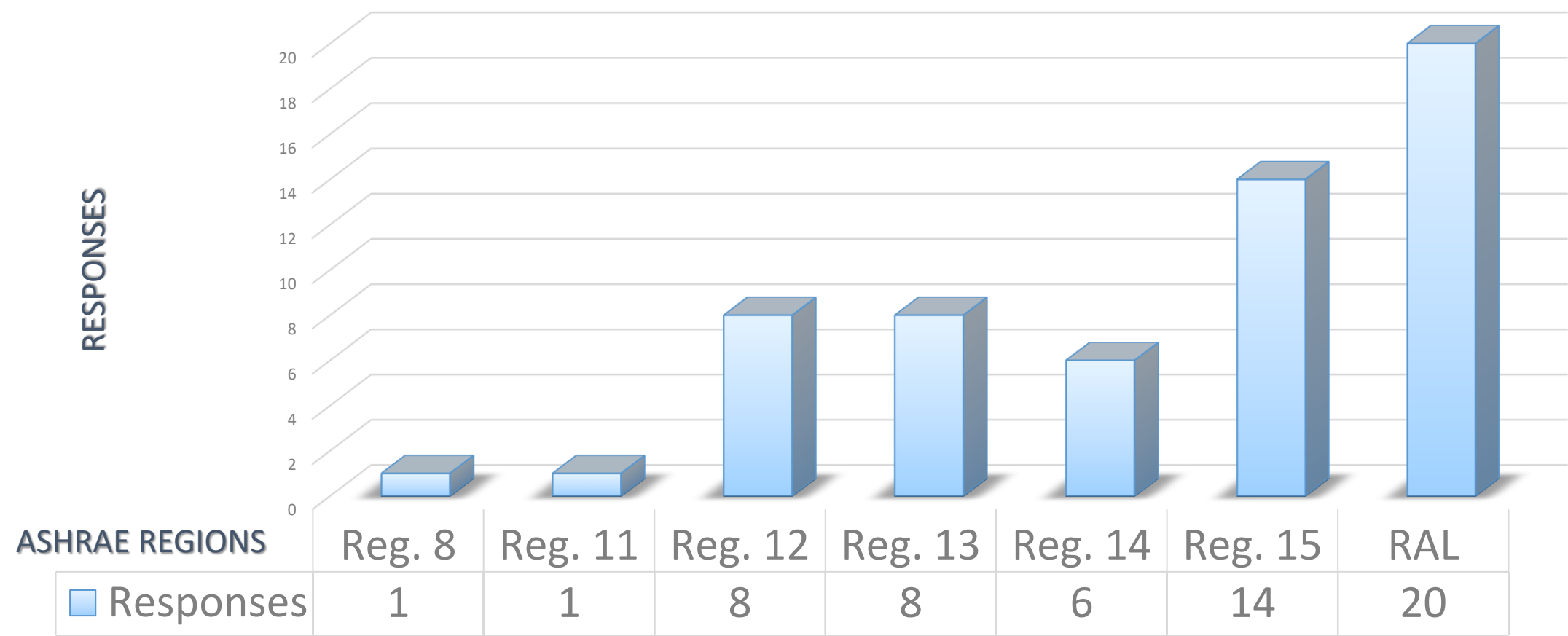


- In May 2024, GTIC's Regions & Chapters Interaction Subcommittee developed and distributed a survey to Chapters and Industry Associations to gather information on how ASHRAE standards are currently used in their respective regions.
- The information will provide insight on what ASHRAE can do to assist in promoting/adopting/adapting ASHRAE products and services in their countries.
- ASHRAE can support HVAC&R needs in achieving global alignment with Energy and Decarbonization goals in the coming years
- [Link to Survey](#)

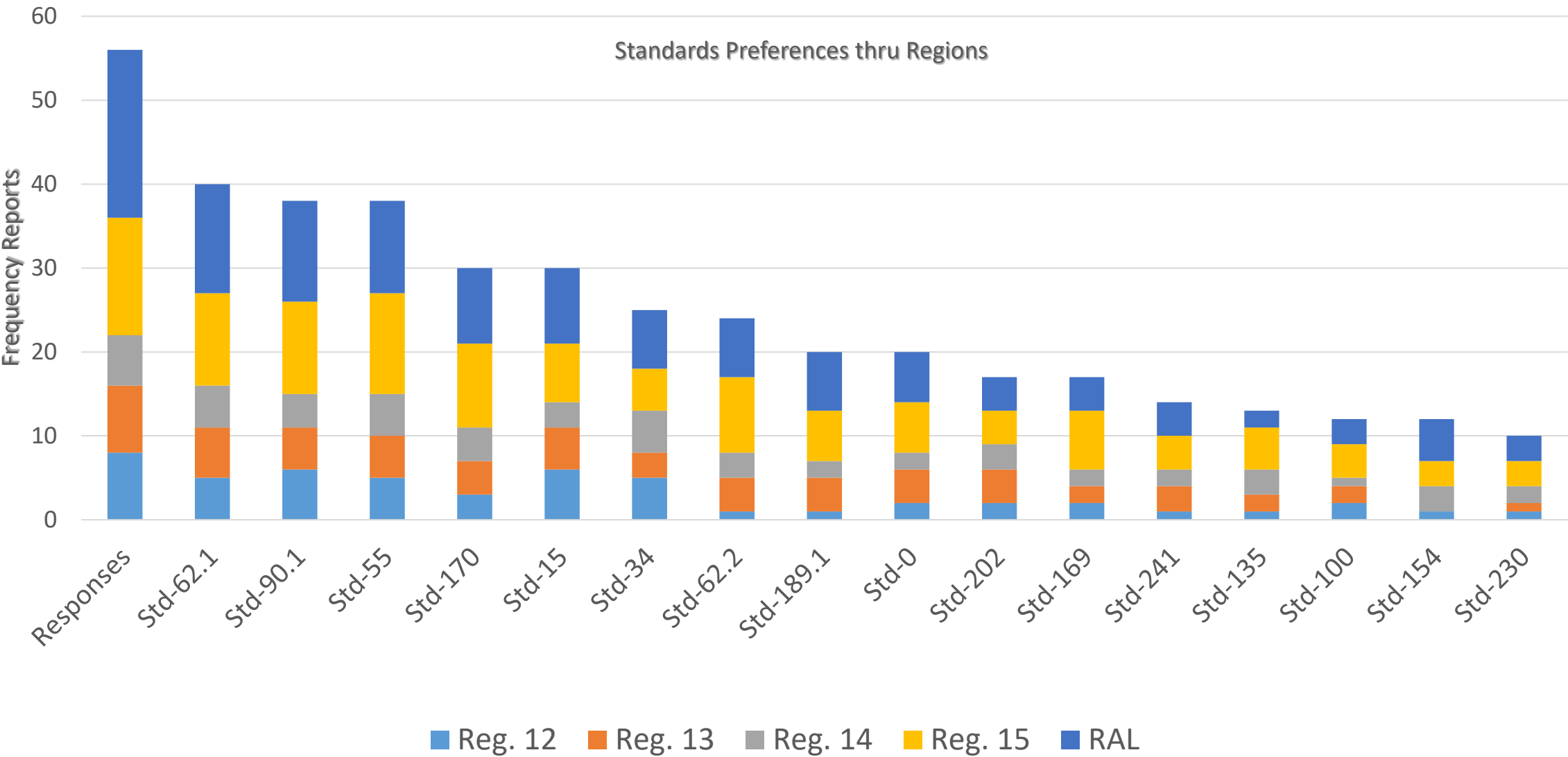
Responses by Region

Total- 57 responses
32 Countries

Responses thru ASHRAE Regions



ASHRAE Standards in use by Region



GTIC proposes to launch pilot project(s) with standards of high demand and interests.

- Process to be developed and modified as needed
- GTIC to define resources within ASHRAE



ISO TAG ACTIVITIES

Where does ASHRAE fit in ISO?

Administrative support for TAGs is delegated by ANSI to accredited Secretariats that are usually ANSI SDOs.

ASHRAE serves as Secretariat for five U.S TAGs

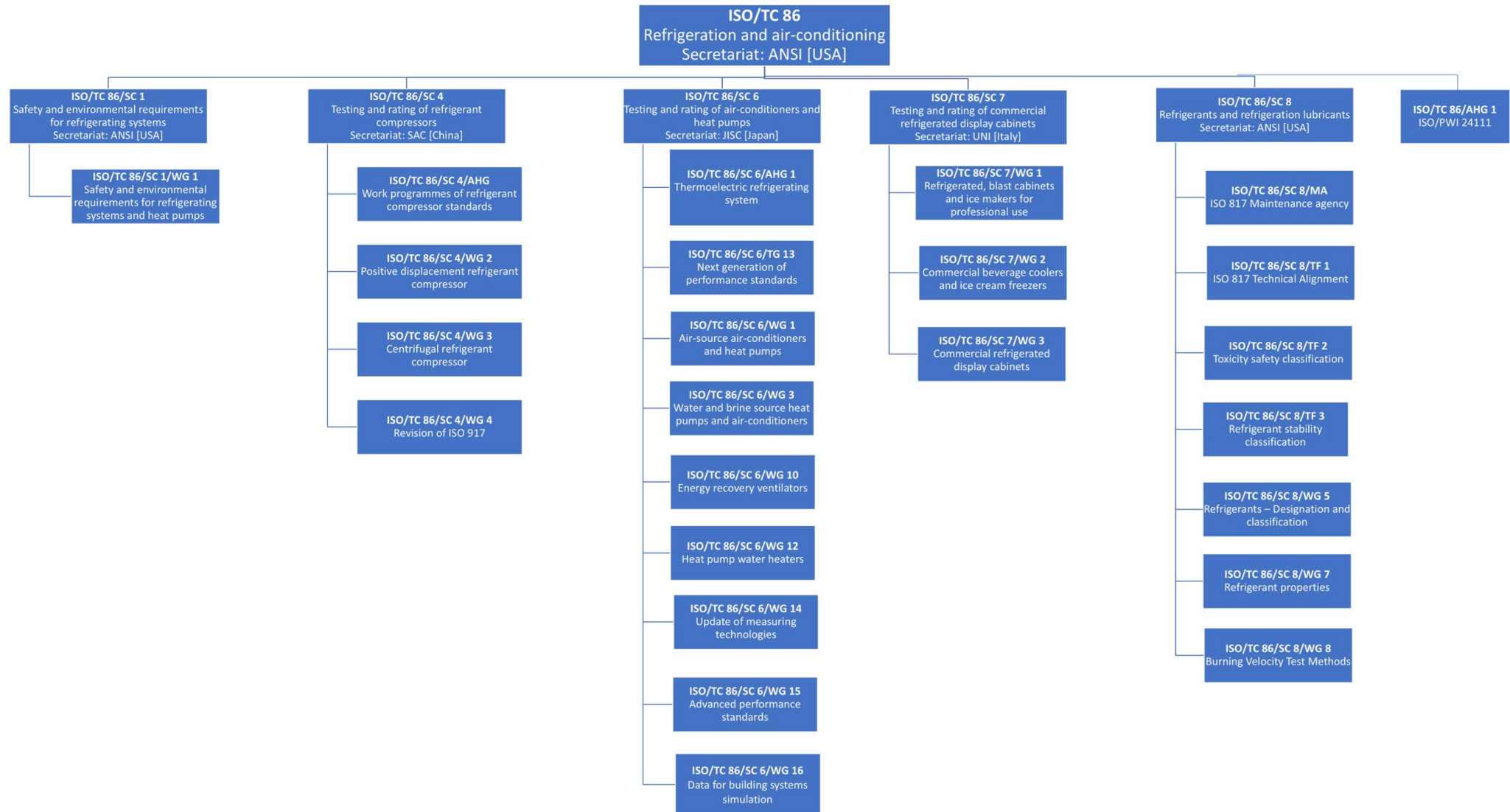
- ISO/TC 86 Refrigeration and air-conditioning
- ISO/TC 142 Cleaning equipment for air and other gases
- ISO/TC 163 Thermal performance and energy use in the build environment
- ISO/TC 205 Building environment design
- ISO/TC 59/SC 13 Organization and digitization of information about buildings and civil engineering works, including building information modeling (BIM)

How do ASHRAE TCs and ISO Working Groups Relate to Each Other?



ASHRAE Technical Committee	ISO Subcommittee/Working Group
TC 1.4, Control Theory and Application	ISO/TC 205/WG 3, Building Automation and Control System (BACS) Design
TC 2.9, Ultraviolet Air and Surface Treatment	ISO/TC 142/WG 2, UV-C Technology
TC 4.1, Load Calculation Data and Procedures	ISO/TC 205/WG 9, Heating and cooling systems
TC 4.7, Energy Calculations	ISO/TC 163/SC 2, Calculation methods
TC 5.5, Air-to-Air Energy Recovery	ISO/TC 86/SC 6/WG 10, Energy Recovery
TC 6.5, Radiant Heating and Cooling	ISO/TC 205/WG 8, Radiant heating and cooling systems
TC 7.6, Building Energy Performance	ISO/TC 205/WG 2, Design of energy-efficient buildings
TC 8.1, Positive Displacement Compressors	ISO/TC 86/SC 4/WG 2, Positive displacement refrigerant compressor
MTG.BIM, Building Information Modeling	ISO/TC 59/SC 13, Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM)

ISO/TC 86 Committee Structure



Standardization in the fields of refrigeration and air-conditioning, including terminology, mechanical safety, methods of testing and rating equipment, measurement of sound levels, refrigerant and refrigeration lubricant chemistry, with consideration given to environmental protection. The scope includes factory-assembled air-conditioners (cooling), heat pumps, dehumidifiers, refrigerants, and refrigerant reclaiming and recycling equipment as well as other devices, components and equipment such as humidifiers, ventilation equipment and automatic controls used in air-conditioning and refrigeration systems that are not covered by other ISO technical committees.

Building Environment Design

WG 1 – General principles

WG 2 – Design of energy-efficient buildings

WG 3 – Building automation and control system (BACS) design

WG 6 – Indoor acoustical environment

WG 7 – Integration of nature and biodiversity in building design

WG 8 – Radiant heating and cooling systems

WG 9 – Heating and cooling systems

WG 10 – Commissioning

JWG between TC 163 and TC 205 (TC 163/WG 4) - Energy performance of buildings using a holistic approach

AG 1 between TC 163 and TC 205 – Coordination of ISO 52000 family

JWG 11 between TC 205 and TC 163 - Moisture damage

JWG 12 between TC 205 and ISO/TC 274 – Indoor visual environment

Standardization in the design of new buildings and retrofit of existing buildings for acceptable indoor environment and practicable energy conservation and efficiency. Building environment design addresses the technical building systems and related architectural aspects, and includes the related design processes, design methods, design outcomes, and design-phase building commissioning. Indoor environment includes air quality, and thermal, acoustic, and visual factors.

<https://www.iso.org/committee/54740.html>

Thermal performance and energy use in the built environment

SC 1 – Test and measurements methods

SC 2 - Calculations methods

SC 3 – Thermal insulation products, components and systems

WG 4 – Joint TC 163 and TC 205 – Energy performance of buildings and holistic approach

ISO/TC 163 Scope

Standardization in the field of building and civil engineering works of:

- thermal and hygrothermal performance of materials, products, components, elements and systems, including complete buildings, both new and existing, and their interaction with technical building systems;
- thermal insulation materials, products and systems for building and industrial application, including insulation of installed equipment in buildings

<https://www.iso.org/committee/53476.html>

Cleaning equipment for air and other gases

WG 1 – Terminology

WG 2 – UV-C Technology

WG 3 – General Ventilation Filters

WG 4 – HEPA and ULPA Filters

WG 5 – Dust Collectors, Droplet Separators and Purifiers

WG 7 – Cleanable filter media used in industrial applications

WG 8 – Gas-phase air cleaning devices

WG 9 – Rotary machinery

JWG 10 – Aerosol filters for nuclear applications

JWG 11 – Portable room air cleaners

WG 12 – Sustainability

WG 13 – Biological equipment for water gas treatment

WG 14 – Test Method for airborne microorganism filtration efficiency and decontamination efficiency

Standardization in the fields of terminology, classification, characteristics, and test and performance methods for air and gas cleaning and disinfecting equipment for general ventilation and industrial applications.

Excluded :

- exhaust gas cleaners for gas turbines and IC engines in mobile equipment, this being within the scope of other ISO technical committees;
- filters for personal protection equipment which are the field of work of technical committee ISO / TC 94;
- cabin filters in mobile equipment covered by ISO / TC 22, 23 and 127.

ISO/TC 59/SC 13 Scope

SC 13 is charged by TC 59 to focus on international standardization of information through the whole life cycle of buildings and infrastructure across the built environment

- to enable interoperability of information;
- to deliver a structured set of standards, specifications and reports to define, describe, exchange, monitor, record and securely handle information, semantics and processes, with links to geospatial and other related built environment information;
- to enable object-related digital information exchange.

How Can ASHRAE Members Get Involved in International Standards?



ASHRAE members can get involved in international standards by:

- Joining a U.S. TAG
- Attending ISO meetings as a U.S. expert
- Agree to be a resource for TAGs to reach out to for review of documents

NOTE: INTERNATIONAL TRAVEL IS NOT REQUIRED TO PARTICIPATE!

Interested in getting involved?

Contact Kai Nguyen (knguyen@ashrae.org), AMOS – I for more information

PUBLICATIONS COMMITTEE



ASHRAE Special Pubs Master List with Cognizant TCs



ASHRAE Special Publications' Cognizant TCs							
Cognizant TC	Title	Date Publ	Research Project (RP)	Special Project (SP)	Product Code	Last Review Date	Date Next Review Required / Comments
TC 01.01	Understanding Psychrometrics, Third Edition	2013			90167	2023	Deemed historical so ok as is, no need to review
	Fundamentals of HVAC Systems, I-P and SI [eLearning textbook]	2006, 2007				2022	Currently under review
TC 01.04	Fundamentals of HVAC Control Systems, I-P and SI [eLearning textbook]	2009 or 2011				2022	Currently under review
	Dampers and Airflow Controls (also TC 05.02)	2010			90138	2023	TC 5.2 stated they would review; haven't received update
	Fuel Cells for Building Applications	2002	RP-1058		90419	2024	May submit PTAR to revise
TC 01.10	ASHRAE Design Guide for Combustion Turbine Inlet Cooling, 2ed	2022	RP-1762		90384	n/a	2027
	Combined Heat and Power Design Guide	2016	RP-1592		90555	2020	2025
TC 01.12	Humidity Control Design Guide for Commercial and Institutional Buildings	2001			90421	2024	Currently under revision
	ASHRAE Guide for Buildings in Hot & Humid Climates, 2ed	2009			90442	2020	2025
TC 02.03	Application Guide: Indoor Air Quality Standards of Performance (originally TC 07.03; also TC 02.04)	2000	RP-853		90417	possibly never	2025
TC 02.04	Application Guide: Indoor Air Quality Standards of Performance (originally TC 07.03; also TC 02.03)	2000	RP-853		90417	possibly never	2025
TC 02.06	Application of Manufacturers' Sound Data	1998	RP-786		90393	2023	Set to be superseded by forthcoming book
	Practical Guide to Noise and Vibration Control for HVAC Systems SI, 2nd ed.	2011	RP-526		90339	2023	Currently under revision
TC 02.07	ASHRAE/SMACNA Seismic Restraint Applications CD	2002				2018	TC stated they would revise; haven't received update
	Practical Guide to Seismic Restraint, 2nd Ed	2012			90316	2022	Currently under revision
TC 02.08	ASHRAE GreenGuide, 6th Edition	2022			90335	n/a	2027
TC 03.08	Zero Leaks	1998			90394	2020	2025
TC 04.01	Updating the ASHRAE/ACCA Residential Heating and Cooling Load Calculation Procedures and Data (RP-1199 Source Code and Data) CD	1996	RP-1199		94265	2023	TC said they would verify data were still current per Handbook Chapter and ACCA Manual J; haven't received update
	Load Calculation Applications Manual, 2ed, I-P and SI versions	2014	RP-1616		90664	2023	TC stated they may submit PTAR to revise
	Annotated Guide to Load Calculation Models and Algorithms (also TC 04.07)	1996			90390	?	TC 4.1 wants TC 4.7 to lead
TC 04.02	International Weather for Energy Calculations (IWEC), Version 2, DVD	2012	RP-1477		94051	?	2025
TC 04.04	Heat Transmission Coefficients for Walls, Roofs, Ceilings and Floors	1993	RP-453		90354	2020	Deemed historical so ok as is, no need to revise

TC Form for Reviewing Older ASHRAE Publications

TC Form for Reviewing Older ASHRAE Publications



ASHRAE staff needs your expertise! It is essential that ASHRAE publishes relevant, up-to-date technical content, and Publications staff is not qualified to make such determinations. Your feedback will help determine whether a publication needs revisions and, if so, to what extent. **THANK YOU for taking the time to review this publication.** Please complete this form online at www.ashrae.org/TCpubreview or submit this filled-out PDF to [ASHRAE Special Publications](#).

Title reviewed: Reviewing TC #:

The following checklist is a starting point that TC members can use when asked to review an older ASHRAE publication. The TC may wish to apply additional criteria not listed here.

MANDATORY CONSIDERATIONS

- Does this publication address a topic that is of interest/valuable to those in the HVAC&R industry today?
☐ Yes ☐ No
- Is the information provided in this publication current or out of date/no longer relevant?
☐ Current ☐ Out of date/no longer relevant
- Are there advances in the industry, revised best practices, or new technologies, procedures, resources, and/or computer programs, etc., that should be included in the coverage of this publication's topic?
☐ Yes ☐ No *If yes, please list:*
- What do you recommend as the next step for this publication?
 - ☐ Continue to sell as is, in both print and PDF formats
 - ☐ Continue to sell as is, but only as a PDF (not print)
 - ☐ Revise/update content and sell new edition
 - ☐ Remove from sale and do not revise/update
- If you recommend that ASHRAE revise/update and sell a new edition of this publication:
 - Do you feel a revision of this publication would require new research to be conducted?
☐ Yes ☐ No
 - Do you feel the TC is capable of completing the required revision work?
☐ Yes ☐ No *Why?*
 - Do you feel the revision could be completed on a volunteer basis or would require funding?
☐ Volunteer basis ☐ Funding required *Why?*

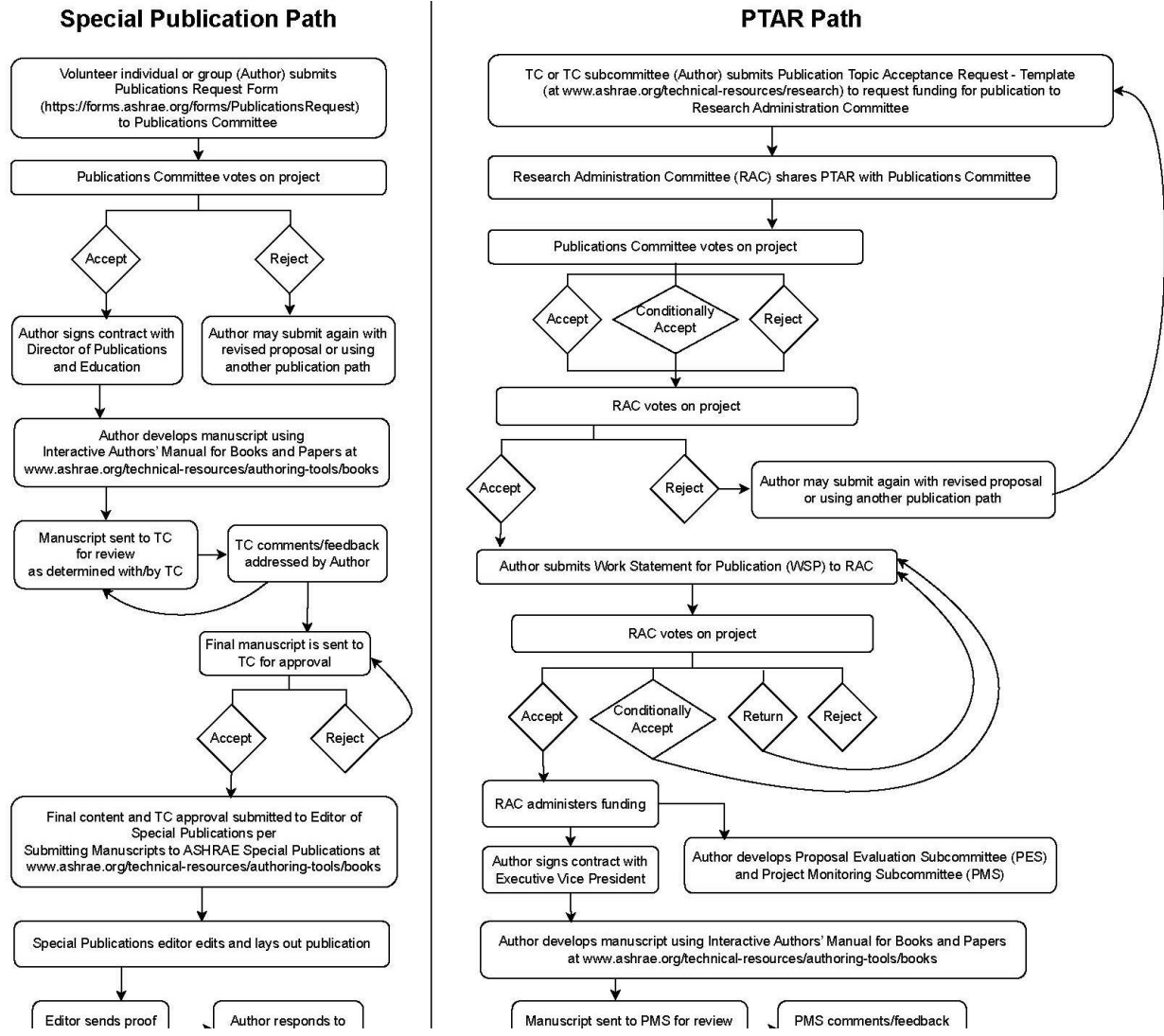
Note:

Reviews of
existing books
only come up
about **once**
every 4 years.

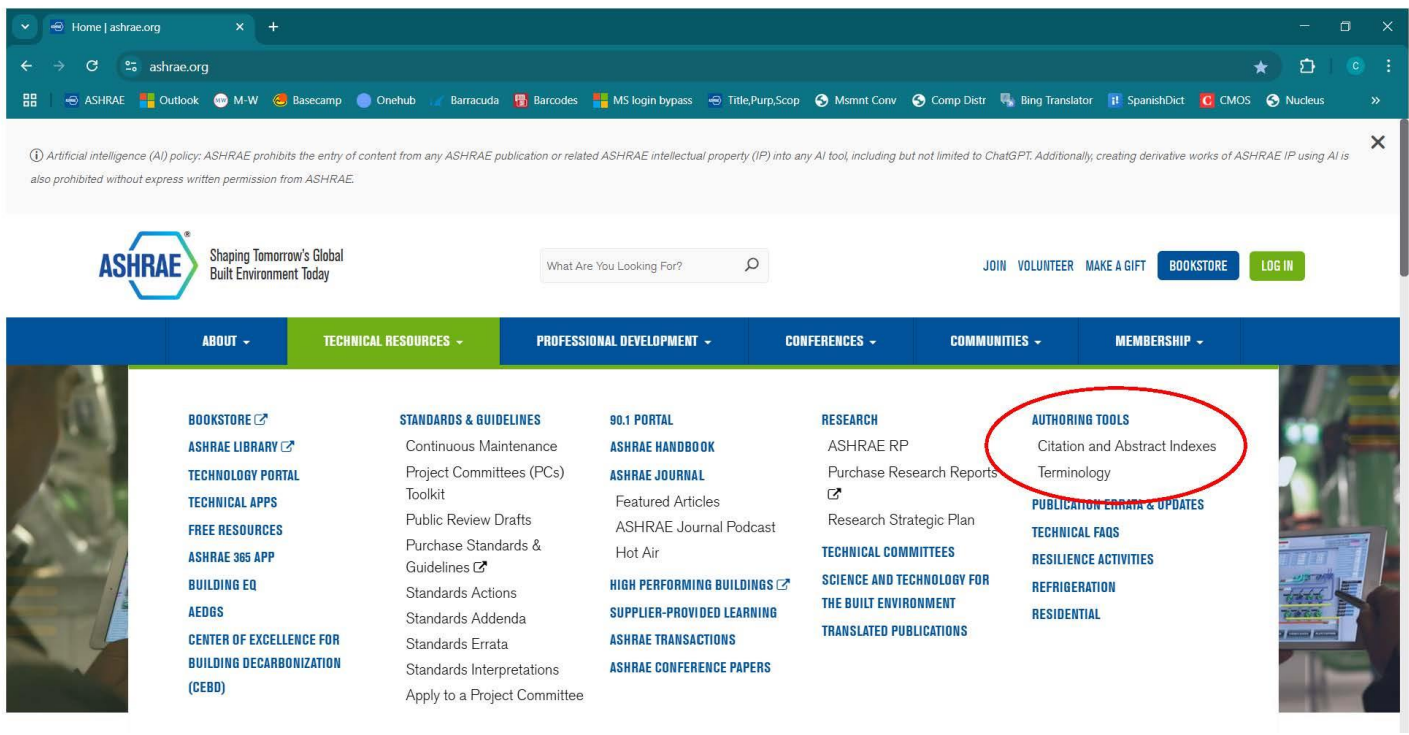
Submission and Contact information for Publishing with ASHRAE

Publication Type	How to Submit Proposals	ASHRAE Staff Contact
ASHRAE Journal articles (technical, for practicing engineers)	www.ashrae.org/technical-resources/ashrae-journal/submission-guidelines-for-ashrae-journal	ASHRAE Journal Editor, Drew Champlin, DChamplin@ashrae.org
Books	<p>Individual authors, authoring groups, and TC/TG/MTG volunteer efforts: http://cms.ashrae.biz/forms/pubplan/index.php</p> <p>TC/TG/MTG paid efforts: Use the Publication Topic Acceptance Request template available at https://www.ashrae.org/technical-resources/research</p>	<p>Special Publications Editor, Cindy Michaels, cmichaels@ashrae.org</p> <p>Manager of Research and Technical Services, morts@ashrae.net</p>
ASHRAE Journal Podcast	Submit topic or guest suggestions via email to ASHRAE Journal Managing Editor Kelly Barraza at kbarraza@ashrae.org	
Insights, HVAC&R Industry News, and ASHRAE Journal Newsletter	Submit article or topic suggestions via email to ASHRAE Journal Assistant Editor Mary Sims at msims@ashrae.org	
CDs/DVDs/Software/Online databases	http://cms.ashrae.biz/forms/pubplan/index.php	Special Publications Editor, Cindy Michaels, cmichaels@ashrae.org
Apps	https://xp20.ashrae.org/secure/special_pubs/app_propose/	Special Publications Editor, Cindy Michaels, cmichaels@ashrae.org
Translations of ASHRAE's books, standards, guidelines, position documents, white papers, or reports	Submit requests to translate specific titles via email to Special Publications Editor Cindy Michaels at cmichaels@ashrae.org	

Flowchart of Publication Paths for Book Projects



Authoring Tools Available from the ASHRAE Website



Write for ASHRAE



ASHRAE Journal

EXPLORE



Handbook

EXPLORE



Standards and Guidelines

EXPLORE



STBE

EXPLORE



Books

EXPLORE



Papers

EXPLORE



Books

EXPLORE



Interactive Authors' Manual
ASHRAE's Publishing Ethics
ASHRAE SI Guide for HVAC&R
ASHRAE Commercialism Policy and Guidelines
Figure Permission Scenarios
Permission Request Form
Submitting Manuscripts to Special Publications

Contacts for Publications Committee

Publications Committee Chair

PubChair@ashrae.net

Publications Committee Vice Chair

PubVChair@ashrae.net

Special Publications Editor, Cindy Michaels

SpecialPub@ashrae.net

or directly at cmichaels@ashrae.org

ASHRAE Journal Editor, Drew Champlin

dchamplin@ashrae.org

ASHRAE Fellows



- 1) [What](#) is the Grade of ASHRAE Fellow
- 2) Tips & Suggestion for How to [Apply](#) (H&A)
- 3) Contributions of [College of Fellows](#)
- 4) Additional [Resources](#)

A member who has “attained distinction and made substantial contribution in HVAC&R and the built environment”.

- “Distinction” – as seen by his/her peers in the industry as a person of interest.
- “Substantial contribution” - one or more contributions to the industry which had a notable, unique and positive impact in the advancement of the arts and/or sciences of HVAC&R, the built environment and a sustainable world.

Tips & Suggestions for Application (H&A)

- List of 1-3 key projects/significant work/research, **MAJOR notable, unique, positive impact**
- MANDATORY 100 word or less description of the nominee's contributions having a substantial impact.
- This information gets reviewed thoroughly!
- Work in education and/or research.
- Engineering design/consulting/forensics work, including that of contractors, manufacturers and representatives.
- Invention/original work.
- Engineering executive on projects of unusual or important scope.
- Sharing knowledge, outreach such as mentoring, publications, oral presentations, involvement in industry activities.
- Activities leading to advancement of HVAC&R, built environment & sustainability.

Nomination Applications Dos & Don'ts

- H&A considers state of the art of industry and locale at time of contribution when determining if project is considered “notable”.
 - “Significant contribution” and “substantial impact” is not necessarily associated with a physical project or “invention or research”.
 - **Professional references (min 2)** familiar with nature of contribution (not necessarily nature of nominee).
 - Nominee confirms applicants “**positive impact** on advancement of arts and/or sciences of HVAC&R, built environment and sustainable world” vs “**pedigree**” of references.
- ▶ **Service** to ASHRAE? Consider nominating member for DSA or ESA award instead.
 - ▶ Quantity vs. **Quality**. Large amounts of “routine work” does not qualify a member for Fellow.
 - ▶ **Length of career**. No requirement (But a **minimum of 10 years** at Full Member Grade in ASHRAE is required).
 - ▶ **Highly visible** projects using **routine technology** vs. **innovative & notable technology/design** used.

Nomination Process

- **Review** ASHRAE Fellow Nomination Checklist to make sure all that is needed is included in the Fellow Nomination packet.
- Use most **current** version of Fellow Nomination form (check ASHRAE website).
- Nominator does NOT need to be a Fellow BUT, at least **one letter** of recommendation DOES need to be written by a current ASHRAE Fellow.
- Be **concise** in nomination write-up. H&A Personal Awards Subcommittee reviews all nominations, so be considerate of volunteer's time.
- H&A always provides a **reason** why a member was not accepted for Fellow Grade. A nomination can be resubmitted annually with no limit to the number of times. Reasons are **confidential** and not to be shared.
- Future nominations submitted must **address any deficiencies** noted in the H&A feedback provided.

Contributions of College of Fellows includes:

- Graduate student travel awards
 - Mentorship of earlier career ASHRAE members
 - Giving and Sponsoring Seminars
 - Currently working to do more!
-
- *All activities are self funded and managed by the College of Fellows*

Additional Resources:



- Website

<https://www.ashrae.org/membership/honors-and-awards#fellow>

- Podcast Link

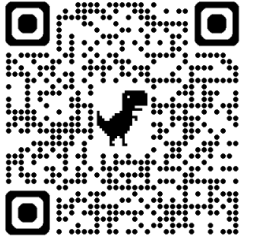
<https://www.ashrae.org/news/ashraejournal/ashrae-journal-podcast-episode-42>

- Local Chapter H&A

- Current ASHRAE Fellows

- COF Executive Committee

<https://www.ashrae.org/communities/college-of-fellows>



ROSTER UPDATE



How to get access?

- Refer to email sent from ASHRAE to TC Chair alias and also actual email
- To request access, contact
 - Your Section Head *or*
 - Tara Thomas
tthomas@ashrae.org

Dear [REDACTED]

Below is your unique link for updating your Technical Committee roster:

TC00 [REDACTED]

[https://tcroster.ashrae.org/rosterUpdate/\[REDACTED\]](https://tcroster.ashrae.org/rosterUpdate/[REDACTED])

You can update and save changes as often as you like; however, once the changes are submitted your updates are considered **FINAL**. All updates go into effect July 1st.

Special notes for updating your roster:

You will notice that there is not a section to add new individuals. If someone has expressed interest in joining the committee, please direct them to the website at www.ashrae.org/joinatc. By joining online, the individual is instantly placed on the committee and gives them immediate access to committee functions.

Additional Notes – If there are changes needed that is not allowed on the update form, please list those changes in the additional notes section.

If a member serves in multiple positions, you might see them listed duplicate times under the Membership List Section. *Additional entrees are for the management team section only.* No Changes (NC) is required to those entrees under the membership list.

You will not be able to submit your roster if any sections of the “Mandatory” section is left blank. If there is currently no one to put in that position, please assign it to the TC Chair.

The completed workbook should be submitted by Monday, March 3rd. For your reference, the current 2024-2025 rosters can be accessed at www.ashrae.org/myactivecommittees.

Please feel free to contact me or your section head at sh1@ashrae.net if there are any questions or concerns.

- Term limits
 - Chair = 2 years with a 1 year extension through the approval of the Section Head;
 - Vice Chair = 2 years;
 - The Chair's term is not limited by the policy limiting normal Member and Member Non Quorum reappointments to four (4) consecutive terms.
- Chair and Vice Chair **MUST BE ASHRAE members!**
- The Chair should have served at least one one-year term as Vice Chair or Secretary.
- Corresponding Members can serve in all TC management positions except Chair.
- Refer to the FG Reference for more details

Roster Update Workbook – Key Elements

1. Management Team
 - **Name Search** will auto-populate (from current roster) once you begin to type
 - No position should be left blank
2. Additional Placements (non-mandatory positions)
3. Proposed Membership List and Status
4. Future Roster
5. New Members
 - Can sign up at anytime as a PCM
 - Must have ASHRAE number or contact info

Roster Update: Landing Page

1. Instructions

Shows instructions

2. Save

Click to save your updates from time to time


3. Submit

Submit to Section Head. Once submitted, cannot be changed

4. View Roster

Click to see proposed roster; download as CSV

Roster Update Form



2025-2026 PROPOSED ROSTER UPDATE FORM

TC01.05 - Emerging Computing Applications

Instructions

NOTE: Once SUBMIT FINAL is clicked, your roster can no longer be edited.

Save

SUBMIT TO SECTION HEAD

View Roster

TECHNICAL COMMITTEE MANAGEMENT TEAM

Note: This section is mandatory

Position	Name	ASHRAE No.	Appointed Year	End Year	Term Years	Voting Start	Continuing from Current Year? (Y/N)
Chair	Anthony Fontanini	8229076	07/01/23	06/30/25	2	07/01/23 (2 Yrs.)	<div>Yes</div>
Vice Chair	Parastoo Delgoshaei	8320361	07/01/24		2	07/01/21	<div>Yes</div>
Secretary	Mohammad Heidarinejad	8130057	07/01/23	06/30/27	4	07/01/23 (4 Yrs.)	<div>Yes</div>
Handbook Subcommittee Chair	EMPTY						

Name:

ASHRAE No.:

This field is required.

This field is required.

Program	Michael Galler	8021881	07/01/24	06/30/27	3	07/01/02 (3 Yrs.)	
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Instructions



2025-2026 PROPOSED ROSTER UPDATE FORM TC01.05 - Emerging Computing Applications

[Instructions](#)

NOTE: Once SUBMIT FINAL is clicked, your roster can no longer be edited.

[Save](#)[SUBMIT TO SECTION HEAD](#)[View Roster](#)

TC/TG/TRG CHAIRS

TC Roster Update Form is designed to give you all the information needed to produce a desired draft roster for the upcoming Society year. Changes to your roster will go into effect on July 1st. Here's what you need to know:

Section 1: Technical Committee Management Team (Mandatory Positions)

This section will assist you with developing your committee management and subcommittee chair's section.

The TC Chair should have served at least one one-year term as Vice Chair or Secretary. The Chair of a TC/TG/TRG will be expected to serve two (2) consecutive one-year term. TAC may grant a one-year extension with the written request of the chair approved by the Section Head, but no more than three (3) consecutive terms as Chair. The Chair's term is not limited by the policy limiting normal Member and Non-Quorum Member reappointments to four (4) consecutive terms.

Vice Chair must be prepared to train and to serve as Chair following his/her term. A Chair's training breakfast is provided during the Winter and Annual meeting. The Chair and Vice Chair MUST BE ASHRAE MEMBERS! Corresponding Members can serve in all TC management positions except Chair.

1. The form is populated to list members in their current positions. If those members will continue to serve in their current position, select "yes". However, if you would like to appoint someone else to serve in a mandatory position, select "no". Once you have selected "no" you will be prompted to enter their replacement (name and ASHRAE number). The details will automatically populate as you enter the individual's name.
2. An individual is not required to be a voting member to serve on a subcommittee or mandatory position.
3. You will not be able to move forward with submitting the roster if a mandatory position is left blank or the membership information is incomplete.

Section 2: Additional Placement

This section allows you to list individuals in positions that are not mandatory. Common additional positions are Member Non-Quorum and ALI Coordinator. A maximum of 2 Non-Quorum (voting) members may be appointed each year. You may also list any special subcommittee chair in this section.

Section 3: Proposed Membership List and Status

This section should be used to revise voting and nonvoting statuses. Please determine which members of the committee should move voting status. A minimum of six (6) and a maximum of eighteen (18) voting members are allowed in a given Society year. This does not include Non-Quorum Members who are also eligible to vote.

Provisional Members act as Corresponding members, but only serve 2-year terms. Now is the time to review the list of Provisional Corresponding Members and decide if they should be added as voting, corresponding members or be deleted from your roster. If there are no changes, after 2 years, they will drop from the roster automatically.

Save and Submit

You should save your form as you make updates. You can make as many changes to the form as needed, until you submit it. Once you have submitted the form, you can no longer make changes. Any changes after you have submitted the form will need to be discussed and submitted to your Section Head.

TECHNICAL COMMITTEE MANAGEMENT TEAM

2024-2025 PROPOSED ROSTER UPDATE FORM TC04.04 - BUILDING MATERIALS AND BUILDING ENVELOPE PERFORMANCE

[Instructions](#)

NOTE: Once SUBMIT FINAL is clicked, your roster can no longer be edited.

[Saving](#)[SUBMIT TO SECTION HEAD](#)[View Roster](#)

TECHNICAL COMMITTEE MANAGEMENT TEAM

Note: This section is mandatory

Position	Name	ASHRAE No.	Appointed Year	End Year	Term Years	Voting Start	Continuing from Current Year? (Y/N)
Chair	Alejandra Nieto	8233982	07/01/22	06/30/24	2	07/01/16 (2 Yrs.)	No <input type="button" value="v"/>

Proposed: (Mandatory Field) Must be ASHRAE Member (May serve 2 or 3 years - Note if applying for 3rd)

Name:

ASHRAE No.:

This field is required.

Vice Chair	Theresa Weston	5133650	07/01/22		3	07/01/98	Yes <input type="button" value="v"/>
Secretary	Leslie Schepplmann	8358568	07/01/22		3		Yes <input type="button" value="v"/>

Proposed Membership List & Status

Proposed Membership List and Status

Use the Status Code column for position changes.

Please direct individuals interested in joining the committee for the first time to www.ashrae.org/joinatc.

Status Code Legend:

AV = Add Voting | **AC** = Add Corresponding | **DV** = Delete Voting (Will be moved to corresponding) | **D** = Delete (Will be deleted from the roster) | **NC** = No Change

ASHRAE No.	Name	Employer	Voting Status	Appointed Year	End Year	Position	New Position	New End Year	Status Code (Required)
8234154	Kevin Kwong	LMS Technologies	Non-voting	07/01/21		Vice Chair (4 Yrs.)			NC ▾
8366444	Victoria Binz	Dynamic Air Quality Solutions	Voting (4 Yrs.) 07/01/22	07/01/22	06/30/26	Secretary (4 Yrs.)			NC ▾
404905	Brian Krafthefer		Non-voting	07/01/21		Handbook Subcommittee Chair (4 Yrs.)			NC ▾

Proposed Roster

- View by clicking ***View Roster*** link on the top-left of the update page

2025-2026 PROPOSED ROSTER
TC01.05 - Emerging Computing Applications

Copy UrlDownload CSV

FUTURE ROSTER

Position	Print on Roster	Name	ASHRAE No.	Appointed Year	End Year	Term Years	Voting Status
Chair		Anthony Fontanini	8229076	07/01/25	06/30/26	1	Voting (1 Yrs.)
Vice Chair		Parastoo Delgoshaei	8320361	07/01/24		2	Non-voting
Secretary		Mohammad Heidarinejad	8130057	07/01/23	06/30/27	4	Voting (4 Yrs.)
Program Subcommittee Chair		Michael Galler	8021881	07/01/24	06/30/27	3	Voting (3 Yrs.)
Research Subcommittee Chair		Todd Gottshall	5205340	07/01/21		5	Non-voting
Standards Subcommittee Chair		Bruce Billedeaux	5114230	07/01/21		5	Non-voting
Webmaster		Gerardo Alfonso	8086090	07/01/25			Non-voting
Subcommittee Chair		Kartik Tiwari	8479102	07/01/24		2	Non-voting