



Technical Committee 3.2 – Refrigerant System Chemistry and Contaminant Control
Draft Minutes – Annual Conference 2025 Phoenix (Hybrid)
Tuesday, June 24– 3:30 to 5:30 pm (MST) Sheraton Phoenix Downtown Laveen A (Level 2)

Information provided below for virtual attendees

Virtual Meetings and Conference Log-in Information

TC 3.2 Meeting (Hybrid) – June 24, 2025 3:30 pm – 5:30 pm (MST)

Link to Join Online: [Join conversation](#)

Combined TC 3 Research and Program Virtual Meeting was held June 2, 2025 2:30 pm – 4:30 pm (MST)

The schedule of all technical programs and meetings can be found at [2025 ASHRAE Annual Conference](#)

1. Call to Order (Julie Majurin)

The meeting was called to order at 3:39 p.m. There were scheduling conflicts with TC 3.4 that prevented some members that participate in both TC 3.4 and TC 3.2 from getting to the TC 3.2 meeting on time. It is recommended that for the next meeting the TC 3.2 and 3.4 chairs work together to prevent conflicts between the two committees.

- 1.1. Virtual conference housekeeping
- 1.2. Meeting Sign-in
- 1.3. ASHRAE Value Statement

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>

Diversity Statement - <https://www.ashrae.org/about/diversity-equity-and-inclusion-dei>

2. Introduction of Members and Guests

2.1. Confirmation of Quorum (Julie Majurin)

| Name | Affiliation | Voting Member |
|------------------------------------|-----------------------|---------------|
| Julie Majurin – Chair | Daikin | Yes |
| Morgan Leehey - Vice Chair | Trane Technologies | Yes |
| Amy Shifflett – Secretary | CPI Fluid Engineering | Yes |
| Casey Scruggs – Research | Metalloid | No |
| Shelby Kent – Programs | Shrieve | No |
| Andrea Hernandez Irias – Handbook | Metalloid | No |
| Sheli Porter – Standards | Stellar Laboratories | Yes |
| Dave Vincent – Webmaster | BVA | Yes |
| Joe Karnaz | Shrieve | Yes |
| Raymond Drost | Calumet | Yes |
| Brad Boggess | Copeland | Yes |
| Rosine Rohatgi | Spauschus | Yes |
| Bob Low | Koura | Yes MNQ |
| Ed Hessel | Lanxess | Yes |
| Rashid Zakeri- MTG Sustainable RAC | Circle Proscio | No |

Those highlighted in yellow were present in-person and those highlighted in green attended virtually.

8/11 voting members were present. Quorum was met.

3. Roster Changes taking effect July 1, 2025

Julie/Sheli/Ed/Brad will be rolling off as voting members after the June meeting. Roster changes take effect July 1.

| Name | Affiliation | Voting Member |
|---|-----------------------|----------------------|
| Morgan Leehey – Chair (2027) | Trane Technologies | Yes |
| Sara Kampfe - Vice Chair | Trane Technologies | No |
| Amy Shifflett – Secretary (2028) | CPI Fluid Engineering | Yes |
| Casey Scruggs – Research (2029) | Metalloid | Yes |
| Shelby Kent – Programs | Shrieve | No |
| Henna Tangri – Handbook (2029) | Honeywell | Yes |
| Sheli Porter – Standards (2025) | Stellar Laboratories | No |
| Dave Vincent – Webmaster (2026) | BVA | Yes |
| Raymond Drost (2027) | Calumet | Yes |
| Bryan Allen (2029) | Copeland | Yes |
| Joe Karnaz (2028) | Shrieve | Yes |
| Bob Low (2026) | Koura | Yes MNQ |
| Rosine Rohatgi (2028) | Spauschus Associates | Yes |
| John DeFranks (2026) | Carrier Corporation | Yes |

Anyone interested in becoming a corresponding member please go to the ASHRAE website and join as a Provisional Member.

4. Approval of TC 3.2 2025 Annual Conference Meeting Agenda (**Julie Majurin**)

The meeting agenda was reviewed. No changes to the agenda were requested.

Motion: Approve the agenda as written.

*1st: Joe Karnaz 2nd: Amy Shifflett
8/0/0 (for/against/abstention/missing)*

Discussion: No discussion

5. Approval of TC 3.2 2025 Winter Conference Hybrid Meeting Minutes (**Julie Majurin**)

The meeting minutes from the 2025 winter conference were reviewed.

Motion: Approve the minutes as written.

*1st: Brad Boggess 2nd: Morgan Leehey
8/0/0 (for/against/abstention/missing)*

Discussion: No discussion

6. Report of TC Chair’s Breakfast Meeting (**Julie Majurin**)

- Chair was unable to attend. Vice-chair attended instead. ASRHAE has a new strategic plan with three main objectives . <https://www.ashrae.org/about/strategic-plan#:~:text=The%202025%E2%80%932028%20Strategic%20Plan,the%20accessibility%20of%20its%20resources.>

CEBD (Center of Excellence for Building Decarbonization)

- Has published several technical guides & special projects are being developed

- WS#1977-SP Update HVAC Equipment Serviced Life Data - RFP out for bid until July 18th
- WS#1988-SP Whole Life Carbon Gap Analysis - RFP out for bid until July 18th
- Strategic Themes:
 - Engineering Guidance & Technical Implementation
 - Business Case Development & Market Transformation
 - Strategic Vision & Long-Term Planning
 - Member & Industry Engagement & Knowledge Transfer
 - AI Integration & Innovation

CEC

- 192 sessions submitted, 86 accepted + 21 paper sessions
- Friday August 1, 2025 - Debate, Panel, Seminar, Forum, Workshop, and Debate Proposals Due
- 2026 Winter Meeting Tracks – Las Vegas, NV
 - Fundamentals & Applications
 - HVAC&R Systems and Equipment
 - Refrigeration
 - Research Summit
 - Energy Storage and Grid Resiliency
 - Pathways to Building Decarbonations
 - AI
 - Indoor Environmental Quality for Healthy Buildings
 - Future-Proofing the Built Environment

Government Affairs

- Tracks legislation and regulations, drafts letters and testimony, connects members with agencies & officials, strengthen relationships with aligned organizations
 - Support webinars, briefings and hearings for policy makers
 - To get updates: [GAU newsletter signup](#)
- Alice Yates is ASHRAE's new head of government affairs.

New TC 9.13 SPACE (Extraterrestrial and Deep Space Environmental Control Systems)

New MTG.GenAI (Generative Artificial Intelligence)

- genAI.Applications
- genAI.ASHRAEproducts
- genAI.Tools
- genAI.Terms

7. Liaison Comments

Tina Brueckner (Section Head)-Will go through roster updates after the meeting with the chair and vice chair. Tina wants to figure out how not to have overlap of TC 3.4 with TC 3.2's timeslot. She will propose to TAC if we can host both meetings in a 4 hour slot and have the first half TC 3.4 and second half TC 3.2. Tina's goal is to come up with a solution for the winter meeting in Vegas. Tina recognized Julie for her hard work as TC Chair and presented her with a certificate.

8. Subcommittee Reports

8.1. Programs (Shelby Kent)

8.1.1 Review of Sponsored, Co-sponsored or programs of interest for this meeting

Seminar 16: System Chemistry and Contaminant Control for Reliable Low GWP Refrigerant Systems-Sunday June 22, 2025, 11:00a-12:30p MST, Phoenix Convention Center North Building, Level 2, 229B-Sara Kampfe. About 30 people attended with limited participation with presenters. Sara said there were great topics and everyone did a great job. We had predicted an estimated 100-150 people to be in attendance but the number was much lower, possibly due to lower attendance at the summer meeting. The session added on a last minute presenter who was an excellent addition for the program and Sara recommended his participation in future programs/ASHRAE work. There were concerns that ASHRAE will look at the attendance and limit our future chances for a program.

8.1.2 Programs Ideas and Discussion of Future Programs:

Discussed a combined section 3 program for Vegas in our program subcommittee meeting. Lots of ideas came out of TC 3.1 and TC 3.4 at the annual conference. TC 3.4 is getting some people together in the next week or so to get ideas on paper and see how this TC can support this for presenting at Expo as a combined program. TC 3.1 has 3 or 4 programs proposed and was thinking something on reclaiming refrigerants for Expo. We discussed the possibility of a seminar focused on impacts of high temperature heat pumps on system chemistry. Joe Karnaz, Henna Tengri, Trane, and Daikin have offered to present something on the topic. Joe brought up that we are lacking contaminant control people in this TC. He may reach out to Parker or others to get their opinion.

Motion: Recommend TC 3.2 hosting a seminar session for the Las Vegas conference titled "Too Hot to Handle-Is Decarbonization of Heating Decreasing System Life and Increasing Service Needs" with Sara Kampfe as program chair. Brad moved. Amy seconded. Passed 8/0/0.

8.2. Handbook (Casey Scruggs in place of Andrea Hernandez Irias)

8.2.1. Updates on Handbook activities and meetings

Our chapters 6 and 7 updates were due in June and there has been limited activity by the Handbook SC. There is not enough time to get them done in just a few days, so the chair already reported to the handbook liaison that there will be no updates this round. Chair identified that a new chair and active volunteers are needed for the next revision cycle. A lot of new information will need to be added to the chapters because there is a lot of new data out there. We have three years to start working on it. Casey offered to co-chair if someone else will help. Steve suggested maybe we combine forces with another TC and do chapters 6, 7, and 12 and have three co-chairs, one representing each chapter. Henna volunteered to co-chair and Rosine as well. Will need volunteers to assist. Trane and Copeland can offer up people to help.

Chapter 6 Refrigerant System Chemistry and
Chapter 7 Control of Moisture and Other Contaminants in Refrigerant Systems

8.3. Standards (Sheli Porter not present)

8.3.1. Updates:

Guideline 38-2023, Guideline for Using Metal Pressure Vessels to Test Materials Used in Refrigeration Systems – standard was published in 2023; no current activity.

ASHRAE 97-2007 (RA 2017), Sealed Glass Tube Method to Test the Chemical Stability of Materials for Use within Refrigerant Systems (ANSI Approved) –Casey is chair. Issue is this committee lost some of the voting members. People have been found and should have link in their e-mail to request to join. Re-writes of the standard are all done, just need to vote.

ASHRAE 35-2014 (RA 2024), Method of Testing Desiccants for Refrigerant Drying (ANSI Approved) - Mandi Shook is chair and sent it out for vote and received not enough response to get a vote. She proposes to get a new committee for the vote. John Senediak thinks the whole standard needs to be restructured. It was tough to follow and needs a major revision. The question is do we still need this standard. John was the only representative in the meeting who uses it. Parker is assumed to use it too but they were not present. Maybe a new version could address some new refrigerants and CO2 and R32. Is an ASHRAE level standard needed or is a company level standard enough? We'll give feedback to Sheli on our discussion and plan to take action at the next meeting.

ASHRAE 63.2-2017, Method of Testing Liquid-Line Filter Drier Filtration Capability (ANSI Approved) –Will talk to Sheli for recommendation on where to go next.

ASHRAE 78-1985 (RA 2017), Method of Testing Flow Capacity of Suction Line Filters and Filter-Driers (ANSI Approved) – Will talk to Sheli for recommendation on where to go next.

ASHRAE 219-2021, Method of Testing the Ability of Liquid Line Filter Driers or Adsorbents to Remove Organic Acid (ANSI Approved) – Couldn't move this standard forward because there were not enough members-only 3 right now and need 5. Could it be changed to a guideline to be easier? Can question this one standard too as to whether we need this. Will speak to Sheli for a recommendation for next meeting.

8.3.2. New Ideas for standards or guidelines

No new ideas

8.4. Research (Casey Scruggs)

8.4.1. TC 3 Combined Research Web Meeting Report

Research Chair's Breakfast Report: Two new research liaisons, one for section 2 and one for section 4. New RAP put together. Had in-person meeting here in Phoenix. Goal is to develop a new research strategic plan. Looking for a good donation drive this year. May implement some training after research chairs breakfast on how to write successful RTAR and work statement. Inclusion of all the required documents with RTAR is needed to simply process an RTAR. PES and PMS training for those starting active projects. All need to take training even if done before. ASHRAE service awards have been split up so that two people can get ASHRAE service award.

8.4.2. Current Research Activities Updates

RTAR 1856 – “Determine the Effect and Allowable Limits of Moisture and Contaminants in CO2 Systems”

The question was if TC 10.6 was able to vote? 10.6 voted in favor of getting it reshuffled around and re-sent back to RAC. Could we use online portal to resubmit? A side meeting will happen between Casey and Ivan to discuss. May make August 15 deadline.

RTAR 1886 – “Kinetic and Mechanistic Studies of the Breakdown of HFO Refrigerants”

Submitted to Zhang. She sent to RAC. Prioritized to go out for bid in the fall.

8.4.3. Review discussion/ideas from Winter Meeting

Nothing discussed

8.4.4. Others – Any research needs and gaps from review of Handbook Chapters

Nothing discussed

8.4.5. Future Research needs and New Research ideas

Casey asked if anyone has looked into this idea: Using more circular economy for building heat exchangers regarding certain levels of materials. AHRI voted to establish a high level committee for HVACR equipment components. This is open to anyone. May circle back to this in 18 months or so. Brad- suggested a look at new refrigerants and process chemicals-could be an RTAR or work statement. Could use online tool.

9. Webmaster (Dave Vincent not present)

Website is up to date

10. MTG Low GWP

No one is representing TC 3.2 on this MTG.

11. Old Business (**Julie Majurin**)

No old business

12. New Business (**Julie Majurin**)

Big thank you to Julie for her service to this committee as chair! Morgan is taking over as chair for the next meeting.

13. Adjournment

Chair adjourned. The meeting was adjourned at 5:35p.