



Technical Committee 3.2 – Refrigerant System Chemistry and Contaminant Control

Draft Minutes - Annual Conference 2024 Indianapolis (Hybrid)
Tuesday, June 25th – 3:30 to 6:00 pm (EDT) JW Marriott 303 (3)

Information provided below for virtual attendees

Virtual Meetings and Conference Log-in Information

TC 3.2 Meeting (Hybrid) – June 25, 2024 3:30 pm – 6:00 pm (EDT)

Link to Join Online: [Join the meeting now](#)

Combined TC 3 Research and Program Virtual Meeting was held June 11, 2024 2:00 pm – 4:00 pm (EDT)

The schedule of all technical programs and meetings can be found at
[ASHRAE 2024 Annual Conference Schedule](#)

1. Call to Order (Julie Majurin)

The meeting was called to order at 3:30 p.m.

- 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
Steve Kujak – Secretary	Trane Technologies	No
Casey Scruggs – Research	Trane Technologies	No
Shelby Kent – Programs	Shrieve	No
Ivan Rydkin – Handbook	Daikin	No
Sheli Porter – Standards	Stellar Laboratories	Yes
Dave Vincent – Webmaster	BVA	Yes
Greg Smith	Honeywell	Yes
Raymond Drost	Calumet	Yes
Brad Boggess	Emerson	Yes
Justin Allemann	Parker Hannifin	Yes
Bob Low	Koura	Yes MNQ
Ed Hessel	Lanxess	Yes
Marc Scancarello - MTG Low GWP	Copeland	No
Rashid Zakeri – MTG Sustainable RAC	Circle Proscio	No

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

8/9 voting members were present. Quorum was met.

3. Roster Changes taking effect July 1, 2024

Name	Affiliation	Voting Member
Julie Majurin – Chair (2025)	Daikin	Yes

Morgan Leehey - Vice Chair (2027)	Trane Technologies	Yes
Amy Shifflett – Secretary (2028)	CPI Fluid Engineering	Yes
Casey Scruggs – Research	Trane Technologies	No
Shelby Kent – Programs	Shrieve	No
Andrea Hernandez Irias – Handbook	Metalloid	No
Sheli Porter – Standards (2025)	Stellar Laboratories	Yes
Dave Vincent – Webmaster (2026)	BVA	Yes
Raymond Drost (2027)	Calumet	Yes
Brad Boggess (2025)	Copeland	Yes
Joe Karnaz (2028)	Shrieve	Yes
Bob Low (2026)	Koura	Yes MNQ
Ed Hessell (2025)	Lanxess	Yes
Rosine Rohatgi (2028)	Spauschus Associates	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 2024 Annual Conference Hybrid Meeting Agenda (**Julie Majurin**)

The meeting agenda was reviewed.

No changes to the agenda were requested.

Motion: Approve the agenda as written.

1st: Morgan Leehey 2nd: Ray Drost

7/0/0 CNV (for/against/abstain/chair)

Discussion: No discussion

5. Approval of TC 3.2 2024 Winter Conference Hybrid Meeting Minutes (**Julie Majurin**)

The meeting minutes from the 2024 winter conference were reviewed.

Motion: Approve the minutes as written.

1st: Greg Smith 2nd: Morgan Leehey

7/0/0 CNV (for/against/abstain/chair)

Discussion: No discussion

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

7. Liaison Comments (may be adjusted to accommodate the Liaisons' schedules) *No liaisons present*

8. Subcommittee Reports

8.1. Programs (**Shelby Kent**)

8.1.1. TC 3 Combined Programs Web Meeting Report from June 11.

Resubmitting rejected seminar. Title was System Chemistry and Contaminant Control in Sustainable Metalworking Fluid with Sara Kampfe as chair. Decided to bring this back with a new title for Orlando. Rashid Zakeri and Joe Karnaz offered to present with a person from Metalloid maybe presenting as well. Trane volunteered to present twice. New title is System Chemistry and Contaminant Control for Reliable Low GWP Refrigerant Systems. Would open up possibility of falling in 2 different tracks (Systems and Equipment or Refrigerants and Refrigeration). Sara Kampfe will continue to be Chair.

Motion to approve the new title of System Chemistry and Contaminant Control for Reliable Low GWP Refrigerant Systems with Sara Kampfe as chair: 1st: Morgan Leehey 2nd: Greg Smith Vote 7-0-0 CNV.

Other ideas on carbon footprint and sustainable lubricants were discussed in TC 3.4, but none brought forward during the TC 3.2 meeting.

8.1.2. Review of Sponsored, Co-sponsored or programs of interest for this meeting
None in Indianapolis

8.1.3. Timeline for program submission: *August 2, 2024-Abstract, speakers and contact information due.*

8.1.4. Programs Ideas and Discussion of Future Programs:

8.1.4.1. Orlando Winter 2025 *See above*

8.1.4.2. Phoenix Summer 2025 *None brought forward*

8.2. Handbook (**Andrea Hernandez Irias/Julie Majurin**)

Get names to Andrea if you are interested in participating. Reviewers also needed.

8.2.1. Updates on Handbook activities and meetings -*No updates*

8.2.1.1. Chapter 6 *Refrigerant System Chemistry*

8.2.1.2. Chapter 7 *Control of Moisture and Other Contaminants in Refrigerant Systems*

8.3. Standards (**Sheli Porter**)

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) – *Chris Seeton is chair. Updates have been completed; needs to be voted on. Julie will follow up with Chris Seeton.*

ASHRAE 35-2014 (RA 2024), Method of Testing Desiccants for Refrigerant Drying (ANSI Approved) - *Mandi Shook is chair. Finalized draft has been sent to committee for review and vote is pending.*

ASHRAE 63.2-2017, Method of Testing Liquid-Line Filter Drier Filtration Capability (ANSI Approved) – *No action needed at this time.*

ASHRAE 78-1985 (RA 2017), Method of Testing Flow Capacity of Suction Line Filters and Filter-Driers (ANSI Approved) – *no current activity.*

ASHRAE 219-2021, Method of Testing the Ability of Liquid Line Filter Driers or Adsorbents to Remove Organic Acid (ANSI Approved) – *standard was published in 2021; need to take a vote on next steps. Standards staff recommends update.*

Motion: Recommend to revise ASHRAE Standard 219 Method of Testing the Ability of Liquid Line Filter Driers or Adsorbents to Remove Organic Acid. The units plan is to maintain SI and I-P units.

1st: Greg Smith; 2nd: Morgan Leehey 7/0/0 CNV (for/against/abstain/chair)

Chair and members needed for revision. Rashid offered to chair. Ray Drost, Bryan Allen, John Sendiak offered to be members.

Discussion: Could reach out to UOP or Honeywell to find additional members and secure balance.

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

8.4.2. Current Research Activities Updates

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

Ivan was chair, recommendation to move responsibility to John Sun at Oakridge. Update from RL-work statement reviewed by RAC and will be returned with comments and TC will receive notice. Major concern is tasks need to be developed with more detail-too vague. Original committee members were Valerie Lisi, John Wu, and Tony Barthel - none were at meeting to confirm if they still wished to be a member. Andrew Sumner volunteered to be a member and will take over as chair if John Sun is not interested.

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

Work statement sent to RAC, it was returned with comments, sent back with appropriate cover sheet, RL said there were more comments not addressed, we will reply back and this would then go out for bid. RAC will meet at this meeting.

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

Possible RTAR for Process Chemical Stability With New Low GWP Refrigerants. Review what was done previously and what knowledge gaps exist. Rosine will review the original info for discussion in Orlando.

9. Webmaster (Dave Vincent)

Website Update:

Dave found a mistake on a website link saying the minutes were from Atlanta, but were actually Chicago's minutes. Dave has fixed the issue. Chair thanked Dave for his efforts to keep the website updated quickly.

10. MTG Low GWP: Recent activity *Steve said only one meeting is happening in Indianapolis and it hasn't happened yet. Updates will be shared in Orlando.*

11. Old Business (**Julie Majurin**)
No old business

12. New Business (**Julie Majurin**)
No new business

13. Adjournment
Chair adjourned at 4:41 p.m.