

ASHRAE TC 3.4
Lubrication
2026 ASHRAE Winter Meeting

Tuesday 2/3/2026, 1:00 - 3:00 PM (PST)
Caesar's Palace, Anzio (P)

Minutes for 2026 Winter Meeting of TC 3.4

- Call to order

- *Meeting was called to order by Rashid Zakeri at 1:03 pm on 2/2/2026 where TC 3.4 scope and value statement were read out loud.*

- Introductions

- *All attendees introduced themselves for attendance and to determine role call for voting members*

a. Determination of a quorum

- *All voting members present*

Name	Affiliation
Voting Members	
Rashid Zakeri – Chair/MTG Sustainable RAC	2026 Circle Proscio
Raymond Drost – Secretary	2028 Calumet
Sara Kampfe	2027 Copeland
Chris Seeton	2026 Consult
Rosine Rohatgi	2026 Spauschus
Morgan Leehey	2026 Trane Technologies
Ramesh Navaratnam- Programs	2028 Patech Fine Chemical
Amy Shifflett	2028 Savant
Joeseeph Nigro	2028 Shrieve
Non-Voting Members	
Stephen Kujak – Vice Chair	Trane Technologies
Scott Wujek – Research, ALI	Trane Technologies
Casey Scruggs – Handbook	Metalloid
Danny Halel – MTG Low GWP	NTHALP Engineering
Dave Vincent- Webmaster	BVA
Sheli Porter- Standards	Stellar Labs

- Approval of minutes

- *A motion was made by Amy Shifflett to approve the 2025 Annual Meeting minutes and seconded by Ramesh Navaratnam ...the motion carried 8-0-1 (chair abstain)*
- *A motion was made Chris Seeton to approve the 2026 Winter Meeting agenda and seconded by Sara Kampfe ...the motion carried 8-0-1 (chair abstain)*

- **Chair's Report Breakfast Meeting** – *Committee and attendees were informed of topics below*

DEI update

BOD advisory committee (end 06/30) → ad hoc committee → standing committee (07/01)

Special project subcommittee

Project is greater than “normal” volunteer commitment, significant external funding.

- Provide significant logical support (financial management, research timeline/outcomes)
- Direct go around to RAC
- 2027-SP – Refrigerant Leakage Rate Emissions Tracking (Bids Received)

Research Advisory Panel (RAP)

- 10 member panel to aid in the growth of research through ASHRAE (met in June 2025)
- TC's are front runners of on-going research within ASHRAE...**how can it be better???**
- Work with TAC/RAC to get input from TC/RSC

- **MTG-GAI** (*Generative Artificial Intelligence*)

- *Encouraged to participate if you are interested or involved in growth of AI in ASHRAE space*

- **TAC** (*Technical Action Committee*)

- *Tracking all data from TC with new template design*
- *Point of mention...Handbook deadlines being missed becoming problematic*

Conference and Expositions Committee

- *Approx. 50% of submissions were accepted*
- *New pilot program – some seminars were presented online preconference*

<u>Summer Track Austin (4-2-25)</u>	<u>Winter Tentative Tracks Chicago</u>
Fundamentals and Applications	Fundamentals and Applications
• Track Chair: Mikeal Salonvaara salonvaaramh@ornl.gov	HVAC&R Systems and Equipment
HVAC&R Systems and Equipment	Research Summit
• Track Chair: Atilla Biyikoglu abiyik@gazi.edu.tr	Refrigeration and Refrigerants
Research Summit	Residential HVAC Research
• Track Chair: Craig Bradshaw crbrad@illinois.edu	Thermal Network Systems
Workforce Development	Nexus of Real and Artificial Intelligence
• Track Chair: Mike Bilderbeck mbilderbeck@pickeringfirm.com	Decarbonization Retrofits
Ground Source Heat Pumps	
• Track Chair: Ahmed Elatar elataraf@ornl.gov	
Hot Climate Building System Design, Operation and Resilience	
• Track Chair: Jie Cai cal40@purdue.edu	
AI in Building Design and Construction	
• Track Chair: Jeslu Jacob jesluceline@gmail.com	
Building Decarbonization	
• Track Chair: Raul Simonetti raul.simonetti@carel.com	

**Summer Track Submission Date Correction- 2/25/2026*

ASHRAE Government Affairs

- www.ashrae.org/government-affairs

ASHRAE MEETING changes

- *Subcommittees will no longer be given space for hybrid meetings and should meeting virtually before/after conference sessions.*

- **Liaison reports**

- *Tina Breuckner was present, but no updates.*

- **Subcommittee reports**

a. Programs

Review of Sponsored, Co-sponsored or Programs of Interest

Programs Ideas and Discussion of Future Programs:

- High Temp Heat Pumps (HTHP): Heat Pumps
for decarbonization
 - *Ramesh Navaratnam will work to re-submit original paper*
 - *Discussed program HTHP paper for Chicago with a possible combined program of all 3.xx Technical Committees- Rashid to reach out to TC 3.xx chairs/Program Chairs to re-submit for Chicago*

b. Research

TC 3 Combined Programs Meeting

Current Research Activities Updates:

Update on research strategic plan to make it more accessible and increase research funds. Budget for research is \$4M, but few submissions.

- **RP 1879** – “Foaming Properties of Low GWP Refrigerant and Oil Mixtures”
 - *Chris Seeton: The Principle Investigator (Craig Bradshaw) has been reconstructing the apparatus. Craig sent short progress report update. From here, will get back on monthly meetings. Will also need to vote no-cost extension; Seeton proposed 1 additional year.*
 - *Chris motioned to vote, and Sara Kampfe seconded. Passed 10-0-0*
- o **RP-1721** “Oil Return and Retention in Unitary Split Gas Lined with HFC and HFO Refrigerants”
 - **Moved to TC 8.11**
- **Future Research needs and New Research ideas**
 - *Discussion of new Oil Circulation Rate(OCR) measurements for standard 41.4: High OCR, sampling techniques, current sensor technologies, and refrigerant/lubricant mixtures with poor miscibility*
 - *Topic “Preferential Solubility of Glide Refrigerant Blends.”*

- Chris Seeton will help/lead drafting an RTAR and Henna Tangri will aid in the work statement.
- o Topic: “Dielectric Properties of low GWP Refrigerants- Lubricant focus

Discussion surrounding Rashid rolling on as Research chair after he rolls off as committee chair in 2027

c. Handbook

- Chapter 12 *Lubricants in Refrigerant Systems*
 - Casey Scruggs communicated the chapter was updated and published in 2025; next revision cycle is 2030; additional lubricant/refrigeration pairs to be investigated in next cycle.

d. Standards

Sheli Porter

- **GPC 40** “Refrigeration Oil Description”
 - Scott Wujek stated roster needs to be updated and is working
- **SPC 86** “Methods of Testing the Flocc Points of Refrigeration Grade Oils”
 - Public review had several comments; updated and going out for public review.
- **SPC 172** “Method of Test for Insoluble Materials in Synthetic Lubricants in Refrigerant Systems”
 - Raymond Drost will head committee to resubmit standard update for new standard; will need to wait until ASHRAE 86 is re-published.
- **SPC 218** “Method of Testing for Lubricant and Refrigerant Miscibility Determination” “Method of Test for Insoluble Materials in Synthetic Lubricants and HFC Refrigerant Systems”
 - 218 went out for ballot in Online Standards Review (OSR), closed on 06-30-25. Went through PPR in August 2025, no comments. Casey submitted and will be re-published.
 -
- **New Ideas for standards or guidelines**
 - Sheli looking for co-chair for assistance because Sheli is unable to attend summer meetings.

e. Webmaster

- Website is not up-to-date due to technical issue with Dave Vincent rolling off; Rashid working through issue and Dave to update website as soon as it's resolved.

- Old Business

- No old business to discuss

- **New Business**

- ASHRAE UK (Amr Suliman) Looking to hold technical webinar series. Asking if TC 3.4 would like to participate. Provide 15-20 min presentation on background of TC 3.4 and a topic related to lubrication.

- *No, members were keenly interested in pursuing this*

- **Adjourn**

- *Chair moved to adjourn meeting at 2:45pm*