



AGENDA

Technical Committee 3.4 — Lubrication¹
American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
Wednesday, June 16, 2021, 1:00 p.m – 3:00 p.m. EDT

Link: <https://ashrae-org.zoom.us/j/92044895869?pwd=M1J2RE43TE5HUE10b2loamN3N29hZz09>

1. CALL TO ORDER (Greg Smith)

Introduction of members and management team; Establishment of quorum

ACTION:

2. ASHRAE Code of Conduct

“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.>)

3. APPROVAL OF AGENDA (Greg Smith)

ACTION: XXX, YYY 2nd R-S-T-CNV

4. MINUTES OF THE LAST MEETING (Joe Karnaz)

Draft minutes of the Summer 2020 virtual meeting were emailed to committee members and were posted to the TC 3.4 website

<https://tc0304.ashraetcs.org/>

ACTION: XXX, YYY 2nd R-S-T-CNV

5. ROSTER REVIEW AND ANNOUNCEMENTS

Voting Members for this meeting (committee terms expire June 30 of year listed):²

Raymond Drost – 2024
Danny Halel – 2021
Edward Hesell – 2023
Joe Karnaz – 2024
Sarah Kim – 2021
Stephen Kujak – 2022
Julie Majurin – 2023
Rosine Rohatgi – 2021
Ivan Rydkin – 2022
Greg Smith – 2022
Robert Yost – 2023

¹ TC 3.4 is concerned with all functions and interactions of lubrication in a refrigerant system, including physical and thermodynamic properties of refrigerant lubricant systems, all issues relating to the circulation of lubricants in a refrigerant system, and other lubrication concerns.

² Members may retrieve the complete committee roster from the ASHRAE website:
log on to ASHRAE.org and sign in with your member info (from the “Join or Login” tab at top of page)
the line “Welcome, [your name]” will appear at the very top of the page; click on “My Account”
this brings up your “ASHRAE Member Profile”
click on “Committees” tab (left side of page); this brings up “My Active Committees”
a line with “T-TAC-TC03.04” should appear; click the “roster” link to download a pdf



Management team:

Greg Smith – Chair
Casey Scruggs – Vice Chair
Joe Karnaz – Secretary
Scott Wujek – Research
Chris Campo – Program
Casey Scruggs - Handbook
Sheli Porter – Standards
Dave Vincent – Webmaster
Joe Karnaz and Danny Halel – Low GWP MTG Liaisons
Scott Wujek – ALI Coordinator

Become a provisional corresponding member: https://eweb.ashrae.org/eweb/TS_ProvisionalSignup.html

6. REPORT OF TC CHAIR’S BREAKFAST (Greg Smith)

This meeting provides the Section 3 Chairs’ a forum for distribution of current direction and guidelines related to ASHRAE activities including technical and research direction, standards, publications, etc.

7. LIAISON COMMENTS

William Dols – TAC Section head
Chee Sheng Ow – Research
Frederick Betz – Handbook (Refrigeration)
Theresa Weston – Standard
Steven Hammerling – Staff

8. RESEARCH SUBCOMMITTEE (Scott Wujek)

TC 3 Combined Research Meeting – Wednesday June 9th, 2021 3:00 pm – 4:00 pm (EDT)

Link: <https://ashrae-org.zoom.us/j/92601400015?pwd=VXZGdmdCL3Z5Rjhsc3dvSUoxSXh4Zz09>

Update:

RP 1879 - “Foaming Properties of Low GWP Refrigerant and Oil Mixtures” - Ivan Rydkin chair

RP 1721 - “Oil Return and Retention in Unitary Split Gas Lines with HFC and HFO Refrigerants”. This is sponsored by TC 8.11 Unitary and Room Air Conditioners and Heat Pumps, with TC 3.4 as a co-sponsor. The PI is Purdue University. - Chris Seeton 3.4 representative

RTAR 1891 “Tribological interaction data with lubricants and refrigerants”. Elyse Sorenson chair.

Previously discussed ideas for research

Preferential solubility of high glide refrigerant blends and lubricants – system effect of fractionation. This is still under consideration for development and will remain in the list.

Investigate Alternative for R-12 in Standard 86 - Method of Testing the Flocc Point of Refrigeration Grade Oils. This is still under consideration, perhaps as paper exercise or seminar to gauge research need.

Electrical Properties of Lubricant-Refrigerant mixtures, extension of refrigerant properties work of TC 3.1

Retrofit considerations when changing refrigerants – Julie Majurin to identify knowledge gaps.

Open discussion on ideas for new research.

ACTION:



9. PROGRAM SUBCOMMITTEE (Chris Campo)

TC 3 Combined Programs Meeting – Wednesday June 9th, 2021 4:00 pm – 5:00 pm (EDT)

Link: <https://ashrae-org.zoom.us/j/92601400015?pwd=VXZGdmdCL3Z5Rjhsd3dvSUoxSXh4Zz09>

Current Sponsored Programs:

Seminar 79: Working Fluid and Application Considerations for Ultra Low Temperature Refrigeration –
Chair: Christopher Campo – Speakers: Wayne Zhang and Christopher Seeton. **This is an on-demand session.**

Other Programs of Interest:

TC 3.1 – Seminar 52: Latest Developments in Low-GWP Refrigerants and Systems for Refrigeration –
Chair: Georgi Kazachki – Speakers: Mike Saunders, Neal Lawrence, Riley Barta, Joe Karnaz and Mike Devine. **This is an on-demand session.**

Future Programs:

Las Vegas: January 2022

Toronto: June 2022

TBD: January 2023

Previous ideas for programs

Estimating Accelerated Chemical Stability Using Equipment Operation

Thermal, Chemical and Materials Compatibility of Refrigerants and Lubricants Through the Years

A future program around Lubricants for Natural Refrigerants.

Current State of Lubricant and Refrigerant Properties

Open discussion on ideas for new programs

ACTION:

10. HANDBOOK SUBCOMMITTEE (Casey Scruggs)

Subcommittee members: Brad Boggess, Elyse Sorenson, Chris Seeton, Amber Saylor
Revisions due July 2021

Update:

11. STANDARDS SUBCOMMITTEE (Sheli Porter)

Update

Standard 86 “Method of Testing the Flocc Point of Refrigeration Grade Oils” - Brad Boggess

GPC 40 (aka Standard 99) “Refrigeration Oil Description” – Scott Wujek

Standard 172P “Method for Test for Insoluble Materials in Synthetic Lubricants and HFC Refrigerant Systems” – Ed Hessell

SPC 218 “Method of Test for Lubricant and Refrigerant Miscibility Determination”



Previously discussed ideas for new standards

Guideline on material compatibility of refrigerants, lubricants and system materials; revise Guideline 6 when it is up for its 5-year cycle to include other information.

Open discussion on ideas for new standards

12. MTG Liasons (Joe Karnaz and Danny Halel)

13. WEB SITE (Dave Vincent)

<https://tc0304.ashraetcs.org>

14. OLD BUSINESS (Greg Smith)

15. NEW BUSINESS (Greg Smith)

16. NEXT MEETING (Greg Smith)

ASHRAE Annual Conference; Phoenix, June 2021

17. ADJOURN

ACTION: XXX