



**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. 3.4 DATE August 23, 2022

TC/TG/MTG/TRG TITLE Lubrication

DATE OF MEETING June 28, 2022 LOCATION Toronto and Virtual

MEMBERS PRESENT	YEAR APPTD ENDS	MEMBERS ABSENT	YEAR APPTD ENDS	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Greg Smith - Chair	2022	Rob Yost	2023	Scott Wujek – Research
Casey Scruggs – V. Chair/Han	2024	Sheli Porter - Standards	2025	Chris Campo – Programs
Joe Karnaz – Sec/MTG	2024			Stuart Dols – Section Head
Ivan Rydkin	2022			
Steve Kujak	2022			
Steve Baker	2025			
Julie Majurin	2023			
Ed Hessell	2023			
Dave Vincent - Webmaster	2025			
Raymond Drost	2024			

DISTRIBUTION: All Members of TC/TG/MTG/TRG plus the following:

TAC Section Head: William Dols	SH3@ashrae.net
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.)	Chee Sheng Ow – Research Theresa Weston – Standards Frederick Betz – Handbook
Mike Vaughn, Manager of Research & Technical Services	MORTS@ashrae.net

Minutes – TC 3.4 Lubrication

Call to Order – Greg Smith

Greg Smith called TC 3.4 meeting to order at 1 pm EDT on June 28, 2022. Meeting was held in-person at the Hilton Carmichael/Jackson Room and via Virtual Zoom Conference Call. Participates were asked to sign the sign in sheet passed around the room and for those on-line using the Zoom Chat function.

Members and guest introduced themselves.

A quorum was established with 10 of 12 members present.

The Chair reviewed the ASHRAE Ethics Statement.

A quick review of the agenda was made.

Approval of 2022 Toronto Meeting Agenda and 2022 Las Vegas Meeting Minutes

A motion was made by Dave Vincent to approve the 2022 Toronto Meeting agenda as written, the motion was seconded by Julie Majurin, the motion carried 9-0-0(CNV).

A motion was made by Julie Majurin to approve the 2022 Las Vegas Meeting minutes as written, the motion was seconded by Dave Vincent, the motion carried 9-0-0(CNV).

TC Chair Breakfast – Greg Smith

- **Revised FG and MTG Manual of Procedures (MOP)**
 - TC/TG/TRG/MTG now separated into FG MOP and MTG MOP - www.ashrae.org/tac
- Changes to FG MOP
 - Requires balance for voting membership and known financial interests in other entities. This was incorporated in June 2021. "...shall maintain a balance of Members in these stakeholder interest categories. No single stakeholder interest category shall constitute a majority...."
 - Requires that the Chair, Vice-Chair, and all voting members are also members of ASHRAE
 - Both balance and ASHRAE membership can be waived with your section heads approval
 - Recommendation to conduct virtual meetings between the Annual and Winter meetings

- **Toronto 2022 Annual Conference Statistics**
 - Total Presentations: 249
 - Conference Paper Sessions: 16 (54 papers)
 - Poster Sessions: 3 (19 posters)
 - Virtual Paper Sessions: 2 (13 papers)
 - Seminar Sessions: 50 (152 presentations)
 - Workshop Sessions: 1; Debate Sessions: 2
 - Forum Sessions: 3; Panel Sessions: 4
 - 10 Livestream sessions
- **Top Tracks**
 - HVAC&R Systems & Equipment
 - IAQ, Energy Use, Comfort and Health of Sustainable Buildings
- **Atlanta 2023 Winter Conference Tracks**
 - Fundamentals and Applications
 - HVAC&R Systems and Equipment
 - Refrigerants and Refrigeration
 - Grid Resilience and Thermal Storage
 - Pathways to Zero Energy Emissions and Decarbonization
 - Multifamily and Residential Buildings:
 - Operations and Maintenance
 - Building Simulation and Virtual Design in Construction
 - Mini Track – Innovative responses to supply chain challenges
- **Deadlines**
 - July 25: Conference Paper Manuscripts Due
 - August 9: Program Submissions Due
 - August 15: Conference Paper Accept/Revise/Reject Notifications
 - August 29: Revised Conference Papers Due
 - September 23: Final Conference Paper Decisions Due
- **Upcoming Annual and Winter Conferences**
 - Winter, Feb 4-8, 2023, Atlanta
 - Annual, Jun 24-28, 2023, Tampa Bay
 - New shortened conference publication timeline
 - Winter, Jan 20-24, Chicago
 - Annual, Jun 22-26, 2024, Indianapolis

Liaisons

Stuart Dols (TAC Section Head) – Stuart thanked the committee and provided an update on activities discussed at the Sunday Chairs Breakfast Meeting. Stuart mentioned that ASHRAE appears to stay committed to having meeting options both in-person and virtual for TC and other meetings during the conference. Since Stuart will be rolling off as the Section Head, Greg Smith and the committee thanked him for his work and assistance.

No other Liaisons presented.

Subcommittee Reports

Program – Chris Campo

Section 3 Programs Subcommittee meeting took place on June 21st via a Zoom virtual meeting. Ideas generated at that meeting will be discussed in individual TC meetings.

TC 3.4 did not sponsor a program in Toronto. Conference Paper Session 8 “Refrigerants and HX Research” was mentioned due to aspects of lubricants used in the investigations.

The ASHRAE meeting in Atlanta for 2023 will have a Refrigerants and Refrigeration Track. Section 3 groups are planning on having multiple programs for the Atlanta conference with the potential to have a mini-track type of session. After some discussion the committee decided to sponsor 2 programs in Atlanta with other Section 3 committees as co-sponsors, multiple people stepped forward and offered to present.

Submission 1:

A motion was made by Steve Kujak to have a seminar for Atlanta titled “Lubrication Basics for Next Generation Refrigerants” chaired by Chris Campo, the motion was second by Joe Karnaz; the motion carried 9-0-0(CNV).

Submission 2:

A motion was made by Julie Majurin to have a seminar for Atlanta titled “Evaluation of Lubricants for HVAC” chaired by Greg Smith, the motion was second by Ivan Rydikin; the motion carried 9-0-0(CNV).

Program abstract submissions for Atlanta are due August 9th.

Future program ideas will be discussed at the next subcommittee meeting and in Atlanta.

Handbook – Casey Scruggs

The handbook committee consisting of Casey Scruggs (Chair), Brad Boggess, Mandi Lippard, Morgan Leehey, Chris Campo, Shelby Kent, Rashid Zakeri, and Chris Seeton are working on review of Chapter 12. To get feedback with different perspective volunteers were needed to add additional review. Dave Vincent and Henna Tangri stepped forward and volunteered.

Standards – Sheli Porter (Andrew Sumner provided the update)

Standard 86 “Methods of Testing the Floc Points of Refrigeration Grade Oils” – This standard is being revised by the committee being chaired by Brad Boggess. Updates were provided.

GPC 40 “Refrigeration Oil Description” – Scott Wujek is the chair, and the committee has had some meetings and moving forward with the update to the current needed format.

Standard 172 “Method of Test for Insoluble Materials in Synthetic Lubricants and HFC Refrigerant Systems”. A committee has been established; Ed Hessell (Chair), the committee needs to revise the document and fix some needed areas that were brought forward. Updates to the progress will be discussed in Atlanta.

SPC 218 “Method of Test for Lubricant and Refrigerant Miscibility Determination”—The standard is up for the 5-year review and in Las Vegas was voted to revise with Casey Scruggs leading the sub-committee. A team is assembled and working on the specifics for the revision.

No new standards were discussed.

Research – Scott Wujek

The combined Section 3 research subcommittee meeting took place on June 21st via a Zoom conference call. Ideas generated at that meeting will be discussed in the individual TC meetings.

- Status of current projects were discussed at the Section 3 meeting

Projects –

RP 1879 “Foaming Properties of Low GWP Refrigerant and Oil Mixtures” – Ivan Rydtkin Chair; the project has been placed out for bid and the PES has made their evaluation and will present information and their recommendation to the committee during an executive session.

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; TC 3.4 is a co-sponsor with Chris Seeton as our representative. Work is still continuing at the PI, Purdue University. The project has been delayed and time extensions have been granted.

RTAR 1891 “Tribological Interaction Data with Lubricants and Refrigerants”. Elyse Sorenson is the chair. Since Elyse has left the industry, a new champion is needed to lead this effort if the committee feels it is still of value. Tabled for discussion in Atlanta to see if someone wants to step forward and continue the project idea.

No new research ideas were communicated, and further discussion was tabled until the next subcommittee and TC meeting in Atlanta.

MTG Update –Low GWP Lower Alternative Refrigerants – TC 3.4 Represented by Joe Karnaz and Danny Halel

- Sunday meeting focused on Research Activities

- Discussed current AHRTI DOE funded research and update on Flammable Refrigerant Subcommittee (FRS) activities
- Two research projects finished 1807 and 1808; WG10 formed to investigate potential integration of research into Standard 15
- RP1806 still in progress with Tasks 2 and 3 work being done 2nd half of 2022
- RP1855 final report being reviewed
- Second meeting to be held Wednesday morning

Webmaster – Dave Vincent

The website is up to date. Dave can upload any pertinent information the committee wants to share on the site. There was some discussion around the use of the ASHRAE Basecamp site.

Old Business – Greg Smith

No old business.

New business – Greg Smith

The new rollover roster will go into effect after this meeting.

Next meeting

2023 ASHRAE Winter Meeting in Atlanta

Adjourn – Greg Smith

The chair closed the meeting at 2:30 pm through a motion to adjourn the regular meeting and go into the executive session.