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DRAFT

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 January 17, 2019

TC/TG/MTG/TRG TITLE Lubrication

DATE OF MEETING January 15, 2019 LOCATION Atlanta, GA

MEMBERS PRESENT	YEAR APPTD ENDS	MEMBERS ABSENT	YEAR APPTD ENDS	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Greg Smith	2020	Scott Wujek	2020	
Joe Nigro	2020	Danny Halel	2021	
Sarah Kim	2021	Steve Spletzer	2020	
Steve Kujak	2022			
Rosine Rohatgi	2021			
Ivan Rydkin	2022			
John Senediak	2020			
Roberto Urrego	2019			

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

TAC Section Head: Barbara Minor	SH3@ashrae.net
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.)	Steve Kujak – Research Vinod Gupta – Standards Frederick Betz - Handbook
Mike Vaughn, Manager of Research & Technical Services	MORTS@ashrae.net

Note: These draft minutes have not been approved and not the official, approved record until approved by the TC.

Minutes – TC 3.4 Lubrication

Call to Order – Acting Chair Greg Smith (filling in for Chair Scott Wujek)

Greg Smith called TC 3.4 meeting to order at 1:40 pm on January 15, 2019 in Atlanta at the GWCC Room B204. Greg explain that Scott Wujek was not able to attend the meeting and he will chair the session. Members and guests introduced themselves. Guests were welcomed and invited to participate. A sign-up sheet was circulated. The Chair reviewed the ASHRAE Ethics Statement.

A quorum was established with 8 of 11 members present.

A quick review of the agenda was made.

Approval of 2019 Winter Meeting Agenda and 2018 Houston Meeting Minutes

A motion was made by Ivan Rydkin to approve the Atlanta agenda as written, the motion was seconded by Rosine Rohatgi, the motion carried 8-0-0(CV).

A motion was made by Ivan Rydkin to approve the Houston minutes as written, the motioned was seconded by Joe Nigro, the motion carried 8-0-0(CV).

A review of the roster was made.

Voting Members:

Scott Wujek	Rosine Rohatgi
Greg Smith	Ivan Rydkin
Joe Nigro	John Sendiak
Danny Halel	Steve Spletzer
Sarah Kim	Roberto Urrego
Steve Kujak	

Management Team:

Scott Wujek – Chair
Greg Smith – Vice Chair
Joe Karnaz – Secretary
Greg Smith – Research
Joe Nigro – Program
Casey Scruggs - Handbook
Sheli Porter – Standards
Dave Vincent – Webmaster
Joe Karnaz – Low GWP TC Liaison

TC Chair Breakfast – Greg Smith

- 2019-2020 Roster Update is due this meeting and the committee will be updating.
- Basecamp is a good way to communicate information within your committees and groups are encouraged to use.

- ASHRAE is still offering name badges for free to those that do you register. ASHRAE would like people to use this because it provides them with a number count which helps when setting up conferences and hotel space.
- Statistics from the Atlanta meeting on programs was communicated.
- Current strategy for reorganizing technical committee was a big topic at the meeting and will be discussed further in this TC meeting.

Liaisons

Barbara Minor – TAC Section 3 Head – Introduced herself as the new Liaison. Went over the new reorganization. Currently 120 technical committees are listed, at every meeting get a few new requests to organize a TC and current committees never die. Ad Hoc committee was formed to look at the organization and trying to use this meeting to get feedback. An aggressive schedule to get feedback has been set with feedback forms needed back in a month in order to share that feedback in Kansas City. She suggested to send out the feedback form with minutes. Different sections currently not set in stone, these ten will be evaluated, also looking at other aspects of all subcommittees. Have already received both positive and negative feedback at this meeting. Need to both purge the committees that are stagnant or not able to get members along with looking at all committees to see how reorganization can help the society.

Steve Kujak – RAC Liaison – Webinars are provided by ASHRAE that provides a good outlet for getting to understand the research process on RTARs, work statements and different committee functions. RAC has been working on a rolling yearly budget of 1.8-2.4 million and projects are being funded. RAC has been directed by the leadership to earmark 10% of research dollars for Special Publications which has resulted in a new form called a PTAR specifically designed for this research.

Subcommittee Reports

Research – Greg Smith

RTAR 1728 “Development of a Model for the Prediction of Oil/Refrigerant Mixture Properties of Low GWP Refrigerants and Synthetic Oils”. The timeline for acting on this has past, and comment was that most organizations do this work internally. Idea will be dropped.

A RTAR has been proposed named “Foaming Properties of Low GWP Refrigerant and Oil Mixtures”. Minor edits where requested by RAC including addition of Go/No Go gates and better definition. Ivan Rydkin has made the requested changes to the RTAR and will resubmit to RAC.

RP1774 “Effects of System Chemicals Towards the Breakdown of Lubricants Lower GWP Refrigerants” is cosponsored by TC 3.4. This work was presented by the PI, Rosine Rohatgi, as a conference paper at this ASHRAE. The work is now complete.

RP1721 “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. The PI is Purdue University, some technical issues have been encountered and Purdue has asked for and been granted a no cost extension.

RP1785 “Effect of Lubricant and Refrigerant Mixtures on Microchannel Heat Exchanger Performance.” This is sponsored by TC 8.4 Air-to-Refrigerant Heat Transfer Equipment. The PI is Oklahoma State University which has had a setback with a fire in the test chamber and has been granted an extension. It was estimated that the work should be complete in around 6 months.

Proposed RTAR “Tribological interaction data with lubricants and refrigerants”. The committee lead by Elyse Sorenson has put together a draft RTAR that the working group will review and get back to the TC. It is expected to be able to submit to RAC by the Kansas City meeting.

No other research ideas were proposed or discussed.

Program – Joe Nigro

TC 3.4 did not sponsor any programs at this ASHRAE.

Ideas were discussed for Kansas City and for Orlando where a refrigeration track is on the schedule.

From the Monday morning combined Section 3 Program meeting there was discussion on having the Section 3 groups coordinate various programs for submission into the Orlando Refrigeration Track. TC 3.1 and TC 3.2 have already had their meetings and have made suggestions for programs. TC 3.1 is based on Emerging New Refrigerants and TC 3.2 is a combination of current, past and future aspects of system chemistry. The Section 3 program committee will see if there is overflow of presenters in one TC group to fill in the need of others.

Other discussion about looking at presentations made at other conferences both national and international to see if this information has value to recycle for future ASHRAE programs. One suggestion for TC 3.4 was some information presented at the 2018 Kobe Symposium particularly around compressor and system manufactures that discussed lubrication and lubricants.

A future program around Lubricants for Natural Refrigerants was suggested.

A list of five future ideas generated from past discussion was listed and discussed.

- Chemistry of New and Retrofit Systems with Low GWP Refrigerants
- Life Cycle of HFO Refrigerants
- Low GWP Refrigerants and Lubricants: What you need to know.
- Estimating Accelerated Chemical Stability Using Equipment Operation

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

Kansas City –

A seminar is planned with the title Refrigeration Concepts for YEA Members which will be chaired by Chris Seeton. Chris will communicate with potential YEA members to present or others that could present something specific to the benefit of YEA members. The idea was to cover information from TC 3.4 along with TC 3.1, TC 3.2 and TC 3.3 so this will be a cosponsored effort.

A motion was made by Steve Kujak to sponsor a seminar for Kansas City titled “Refrigeration Concepts for YEA Members” chaired by Chris Seeton and was seconded by Ivan Rydkin. Motion carried 8-0-0 (CV).

Action: Chris Seeton to coordinate speakers and submit paperwork for program in Kansas City

Orlando –

A seminar will be put together as part of the Section 3 Refrigeration Track idea. Joe Karnaz volunteered to chair the TC 3.4 part of the session and will reach out to various companies for participation (three companies; Shrieve, Lanxess and CPI expressed interest in presenting) and Chris Seeton will reach out to TC 8.1 to see if they have someone willing to present on lubrication. A title will be created, and information will be ready for vote in Kansas City.

Action: Joe Karnaz to develop title and communicate with other potential presenters. Chris Seeton to recommend TC 8.1 contact. All information to be reported back to TC during Kansas City meeting.

Handbook – Casey Scruggs

The TC needs to start planning for the next handbook revision. The handbook chair is looking for volunteers to both review the current handbook and to work on the committee. A few individuals expressed interest (Brad Boggess, Elyse Sorenson, Chris Seeton and Amber Saylor) and the chair will create a list of volunteers and communicate with them the next steps. A comment was made that Handbook work is a good activity for YEA members to get involved with because it provides a good window into the workings of the TC.

Standards – Sheli Porter

Standard 86 “Methods of Testing the Floc Points of Refrigeration Grade Oils” – no action required until 2020.

GPC 40 “Refrigeration Oil Description” – no action required until 2022.

Standard 172 “Method of Test for Insoluble Materials in Synthetic Lubricants and HFC Refrigerant Systems”. Ed Hessel made the TC aware of the issue with a section of the standard that needs to be revised. There is still lack of communication from Standards on how to proceed. A new standards liaison is in place and Ed is will try to communicate with this person and if no response within the next month he will look at reforming the committee with him as the chair. A letter ballot action will be needed if this is the case.

Action: Ed Hessel to communicate with Standards Liaison and if need be reform committee and have chair implement by letter ballot.

SPC 218 “Method of Test for Lubricant and Refrigerant Miscibility Determination”– chaired by Brad Boggess. Work is completed by the committee and waiting on gallery proofs.

- New Ideas

There was some discussion about Guideline 6 but since this is handled by TC 3.1 they will handle reviewing what is needed and will come to TC 3.4 if revisions are needed that will incorporate TC 3.4 functionality.

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

This committee meets on Sunday evening (Part A) and reconvenes Wednesday morning (Part B) to cover the activities. Two of the three research projects are completed with the big project remaining completion of phase 2. Was some discussion on how to disseminate information of RP-1808 “Servicing and Installing Equipment using Flammable Refrigerants: Assessment of Field-made Mechanical Joints”. Numerous activities are taking place around standards and codes of flammable refrigerants.

Webmaster – Dave Vincent

The website is current, and the Atlanta meeting minutes will be posted when received.

Old Business – Greg Smith

No old business.

New business – Greg Smith

Action: Chair Scott Wujek to send feedback form to TC 3.4 members.

Next meeting

2019 ASHRAE Annual Meeting Kansas City, MO June 22–26, 2019.
TC 3.4 will meet Tuesday, June 25th.

Adjourn – Greg Smith

The chair closed the meeting at 3:00 pm through a motion to adjourn.