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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 June 18, 2020

TC/TG/MTG/TRG TITLE Lubrication

DATE OF MEETING June 18, 2020 LOCATION Virtual

MEMBERS PRESENT	YEAR APPTD ENDS	MEMBERS ABSENT	YEAR APPTD ENDS	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Scott Wujek	2020	Steve Spletzer	2020	
Greg Smith	2022	Ivan Rydkin	2022	
Joe Nigro	2020			
John Senediak	2020			
Danny Halel	2021			
Steve Kujak	2022			
Rosine Rohatgi	2022			
Sarah Kim	2022			
Ed Hessell	2023			
Rob Yost	2023			
Julie Majurin	2023			

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 – Scott Wujek

Scott Wujek called TC 3.4 meeting to order at 2:00 pm EST on June 18, 2020 via Virtual Zoom Conference Call. A link to a virtual sign-up sheet was made available. The management team was recognized and a roll call vote for quorum was taken.

A quorum was established with 11 of 13 members present.

The Chair reviewed the ASHRAE Ethics Statement.

A quick review of the agenda was made.

Approval of 2020 June Virtual Meeting Agenda and 2020 Orlando Meeting Minutes

A motion was made by Danny Halel to approve the Virtual agenda as written, the motion was seconded by Joe Nigro, the motion carried 10-0-0(CNV).

A motion was made by Julie Majurin to approve the Orlando minutes as written, the motioned was seconded by Rob Yost, the motion carried 8-0-2(CNV). Sarah Kim and Danny Halel abstaining – they were not present at the Orlando meeting.

A review of the roster was made.

Current Voting	Voting after Aug 1 st	Current Management Team	New Management Team
Scott Wujek	Greg Smith	Scott Wujek – Chair	Greg Smith – Chair
Greg Smith	Rob Yost	Greg Smith – Vice Chair	Casey Scruggs – Vice Chair
Joe Nigro	Rosine Rohatgi	Joe Karnaz – Secretary	Joe Karnaz - Secretary
Danny Halel	Sarah Kim	Greg Smith – Research	Scott Wujek – Research
Sarah Kim	Steve Kujak	Joe Nigro – Program	Chris Campo – Programs
Steve Kujak	Ed Hessell	Casey Scruggs - Handbook	Casey Scruggs – Handbook
Rob Yost	Julie Majurin	Sheli Porter – Standards	Sheli Porter – Standards
Rosine Rohatgi	Ivan Rydkin	Dave Vincent – Webmaster	Dave Vincent – Webmaster
Ivan Rydkin	Joe Karnaz	Joe Karnaz – Low GWP MTG	Joe Karnaz – Low GWP MTG
John Sendiak	Lydia Dobler (being removed)	Scott Wujek - ALI	Danny Halel – Low GWP MTG
Steve Spletzer	Raymond Drost (Proposed)		Scott Wujek - ALI
Ed Hessell			
Julie Majurin			

TC Chair Breakfast – Scott Wujek

Vitual meetings held end of May 2020 – Scott displayed his meeting notes which will be uploaded to the TC 3.4 website – <https://tc0304.ashraetcs.org/>

Highlights of the meeting notes:

- TCs are asked to routinely review their TPS to make sure they are on task.
- Links to all TC virtual meetings are posted on the ASHRAE website.
- Rollover rosters go into effect August 1st.
- The following TCs are in the process of combining: 3.2/3.3; 8.10/8.12/12.9; 9.4/9.8; 7.3/7.8
- August 3rd is the deadline for Chicago program submissions.
- CEC asks for volunteers to help in paper reviews.
- Professional Development Committee (PDC) is seeking ideas for new ASHRAE Learning Institute (ALI) courses.
- Highlights of the 2019-2024 Strategic Plan was displayed.
- ASHRAE will be presenting the Virtual Technical Conference – On Demand Technical Programs along with a live 4-day event.

Liaisons

Barbara Minor (TAC Section Head) – Barbara had nothing else to add to what Scott presented. The committee thanked Barbara for her work as Section 3 Head as her term is ending.

Steve Kujak (Research) – Since RAC has not met yet Steve didn't have any details, but they are still discussing various RTARs and work statements.

Subcommittee Reports

Research – Greg Smith

RP 1879 “Foaming Properties of Low GWP Refrigerant and Oil Mixtures” – Ivan Rydkin Chair; This project went out for bid and 3 bids were received, reviewed by the PES and submitted to RAC. The PES is still waiting on a response from RAC.

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. Purdue University is the PI, work has been slowed by Covid and other issues. They are finished testing POE32 with R-134a and working on R-410A. Work will also be done with ISO 68, 100 and 220 POE.

RTAR 1891 “Tribological interaction data with lubricants and refrigerants”. Elyse Sorenson is the chair. The work statement is progressing.

Other research ideas discussed.

- Preferential solubility of high glide refrigerant blends and lubricants – system effect of fractionation. This is still under consideration and will remain in the list to develop a RTAR.
- Investigate Alternatives for R-12 in Standard 86. This is still under consideration; Chris Campo is leading; a call was made for volunteers to help draft an RTAR. There was some discussion that this might be best to switch to a paper exercise/seminar presentation first to see what next steps develop for a research need.
- Electrical Properties of Lubricant-Refrigerant mixtures, extension of TC 3.1 refrigerant electrical property work. TC 3.1 has developed an RTAR but has decided should not include lubricant. Future work with lubricant may be needed and it was suggested that TC 3.4 work on an RTAR and have ready when this time comes.
- Identify gaps for research work which may be needed around lubricants and retrofit scenarios with low GWP refrigerants. Julie Majurin volunteered to see if she could identify and summarize what these gaps might be and report back to the TC.

Program – Joe Nigro

TC 3.4 will not sponsor or co-sponsor programs for the summer virtual conference.

Section 3 will look to sponsor various programs for Chicago around the Refrigeration and Refrigerants Track. A list was displayed on what has been developed. For TC 3.4, Kristin Sullivan volunteered to chair a session titled “Lubricant Properties and Their Lubrication in Compressors with LGWP Refrigerants” The following update was given – Potential Speakers: Joe Karnaz – Shrieve; Wasim Akram – Trane Technologies; CPI is discussing if they will have present and it was asked if anyone else was interested to try to have four presenters.

A list of future ideas generated from previous discussions was reviewed and will remain on the list.

- 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 was suggested.
- Current State of Lubricant and Refrigerant Properties

Handbook – Casey Scruggs

The handbook committee consisting of Casey Scruggs, Brad Boggess, Elyse Sorenson, Chris Seeton and Amber Saylor has been slowed by Covid. They plan to meet to discuss and make plans to be ready for the 2021 revision deadline.

Standards – Sheli Porter

Standard 86 “Methods of Testing the Floc Points of Refrigeration Grade Oils” – This standard is being revised and a committee of Brad Boggess (Chair), Casey Scruggs, Scott Wujek, Dave Vincent and Sheli Porter has submitted their paperwork. The application process deadline is July 10th and the committee will be starting on the rewrite.

GPC 40 “Refrigeration Oil Description” – Scott Wujek is the chair and paperwork was submitted after the Orlando meeting to revise the standard. Waiting on ASHRAE to start the process and form the committee.

Standard 172 “Method of Test for Insoluble Materials in Synthetic Lubricants and HFC Refrigerant Systems”. Some errors were found in this standard but since time has passed and it is nearing its 5-year cycle it was decided the best way to handle was by cycle revision. Paperwork has been submitted and committee with balance has been formed, waiting on ASHRAE for approval. Some work has already been done so once the process starts should not take too long.

SPC 218 “Method of Test for Lubricant and Refrigerant Miscibility Determination”–
No action is needed at this time.

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

Joe Karnaz and Danny Halel gave updates. Since the MTG has not met yet there was no committee information to pass on. The research subcommittee has met, one project has been completed and approved while two other projects are on-going.

Webmaster – Dave Vincent

The website is current, and the Summer 2020 virtual meeting minutes will be posted when received along with any other pertinent information.

Unfinished Business – Scott Wujek

No unfinished business.

New business – Scott Wujek

The committee thanked Scott for his service as TC 3.4 chair as his term will be ending and welcomed Greg Smith as the incoming chair.

Next meeting

2021 ASHRAE Winter Meeting in Chicago

Adjourn – Scott Wujek

The chair closed the meeting at 2:55 pm through a motion by Danny Halel to adjourn.