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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 24, 2017

TC/TG/MTG/TRG TITLE Lubrication

DATE OF MEETING June 27, 2017 LOCATION Long Beach, CA

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Chris Seeton		John Senediak		
Roberto Urrego		Julie Majurin		
Scott Wujek		Knut Petry		
Rob Yost				
Dave Vincent				
Joe Nigro				
Chris Reeves				
Marc Scancarello				
Steve Kujak				
Sonny Sundaresan				
Steve Spletzer				

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

TAC Section Head: Jay Kohler	SH3@ashrae.net
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.)	Steve Kujak – Research Don Fenton - Standards
Mike Vaughn, Manager Of Research & Technical Services	MORTS@ashrae.net

Minutes – TC 3.4 Lubrication

Call to Order – Chris Seeton

Chris Seeton called TC 3.4 meeting to order at 1:30 pm on June 27th, 2017 in Long Beach at the Renaissance Hotel Bixby 4. 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.

Confirmation of Quorum – Joe Karnaz

With 11 of 13 voting members present a quorum was established.

Approval of 2017 Summer Meeting Agenda and 2017 Las Vegas Meeting Minutes– Chris Seeton

A motion was made by Joe Nigro to approve the agenda for today's meeting in Long Beach, the motioned was seconded by Sonny Sundaesan, and the motion carried 10-0-0-(CNV).

A motion was made by Roberto Urrego to approve the Las Vegas minutes as written, the motioned was seconded by, Scott Wujek and the motion carried 10-0-0 (CNV).

Liaisons

Jay Kohler – TAC Section 3 Head – Jay thanked all the attendees for their efforts in support of ASHRAE. Jay mentioned since we are moving into a new society year it is a good time for incoming subcommittee chairs to utilize various training, at meetings and online, to learn about the processes or enhance their previous training.

Don Fenton – Handbook Liaison – Our chapter needs to be approved by the July 31st, 2017 deadline. The committee will receive the chapter draft to read and a letter ballot vote will take place. Don presented some statistics polled from YEA members which showed that 97% of the responders listed the Handbook as the most beneficially part of ASHRAE membership.

Steve Kujak – Liaison – Steve mentioned that turnover on RAC usually clouds some of the evaluation of RTARs and work statements. Unsolicited research proposals need RAC and TC approvals. Steve mentioned the typical payment process for contractors on a project and said that RAC would like to incorporate milestones in work statements to help support go/no go gates and distribution of dollars.

TC Chair Breakfast – Chris Seeton

- New policy of registration at conferences allowing for both single day and single session at a reduced rate.
- MOP update.
- New way of disseminating information – utilizing a base camp share point.

- Training workshops are available during the meetings.
- Remote participation is available for TC and other committee meetings during the conference. If needed this needs to be signed up for by October for Chicago.
- Free name badges are available at registration for those who did not register. This allows ASHRAE to track meeting participants.
- Thank you, emails, are available for your companies, let the chair know if you would like a correspondence from ASHRAE.
- Programs are due August 1, 2017 for Chicago.
- ASHRAE master calendars procedures through Google are available.
- CEC would like future track recommendations from the TC's. They liked our recent approach Section 3 committees recently took.
- Reviewers of conference and technical papers are always welcome. If interested submit your name to Tara Thomas.

Subcommittee Reports

Research – Greg Smith

Update was provided from Research Chair meeting: Grants and aid are available to encourage and allow Graduate students to attend. An overview of current RTAR and WS being considered by RAC was presented.

“Physical Property Measurements of HFO/Lubricant Mixtures” based on an old RTAR submission RTAR 1628 is being rewritten as a work statement for submission This work could be helpful as data to be used for RTAR 1728 so if RTAR 1728 moves then this will move.

RTAR 1728 was submitted “Development of a Model for the Prediction of Oil/Refrigerant Mixture Properties of Low GWP Refrigerants and Synthetic Oils”. Overseen by Julie Majurin, with help from Wasim Akram, Tony Barthel, and Scott Wujek. This project is losing some steam, Julie Majurin would like to step down and has asked for new leadership. Joe Karnaz reminded the committee that this work also received money support from AHRI and this will run out soon. Steve Kujak said he will work with Ken Schultz to take this over and see what needs to be done to get back on track. Further discussion will take place in Chicago.

Work Statement 1721 – Oil Return and Retention in Unitary Split Systems Gas Lines with HFC and HFO refrigerants. This is sponsored by TC 8.11 and cosponsored by TC 3.4. Chris Seeton is leading this PMS and the contractor is Purdue. The literature search is completed and a very large matrix of tests are proposed.

A RTAR has been proposed named “Foaming Properties of Low GWP Refrigerant and Oil Mixtures”. The work statement was returned from RAC with comments for change (5 comments for change). The RAC liaison made some additional comments and sent back to Ivan Rydkin and he will work on these changes for eventual vote of approval by the TC.

RP1774 “Effects of System Chemicals Towards the Breakdown of Lubricants and Lower GWP Refrigerants” is cosponsored by TC 3.4. The contractor is Spauschus and Rosine Rohatgi gave an update on the work which is completed and a written draft will be completed by August 31, 2107.

Effect of Lubricant and Refrigerant Mixtures on Microchannel Heat Exchanger Performance is a cosponsor research project. Scott Wujek gave an update and said this project is about 80% completed.

Previous Research Ideas:

1. Preferential Solubility –

A proposed title is: “Preferential Solubility of High Glide Blends in Lubricating Oils and System Effect on Fractionation”

Oliver Newton is working on a draft and will try to have available for the Chicago meeting.

New Proposed Research Ideas:

TC 8.1 has asked for support from TC 3.4 on research dealing with tribology and evaluating electrical properties of lubricant and refrigerant combinations. Future discussion was tabled for Chicago.

A suggestion was made that in order to help better communicate research project status if a PMS scheduling list could be sent out. Research chair will work on this and could place on the TC website.

Program – Ed Hessel

TC 3.4 related programs in Long Beach:

TC 3.2 co-sponsored one seminar in Long Beach: Seminar 23 – Contaminant Control and Lubricant Considerations during Retrofits to Low GWP Refrigerants, Chair Ed Hessel; Presenters – Joe Karnaz, Shrieve; Sarah Kim, Arkema and Andrew Pansulla, Chemours. The seminar was Monday morning and was well attended with over 75 people.

A new combined Section 3 Program meeting has been established and the first meeting was held Monday at 10am. This committee will bring back program ideas to the various TCs. A suggestion was made to have the TC 3 programs chairs meet via conference call around October to prepare for the Chicago combined program meeting.

Chicago:

The TC 3 programs committee has put together a mini-track for Chicago which will be presented at the Expo center. The focus of the conference will be on low GWP refrigerants and 4 topics have been outlined. TC 3.4 program chair Ed Hessel will be chairing on of the sessions on “Lubricant Changes for Low GWP Next Generation Equipment” which currently has 3 speakers. The speakers have already submitted abstracts but Learning Objectives and Questions and Answers need to be submitted.

New Ideas:

- Low GWP Lubricant Fundamentals
- For Houston, an idea was presented on presenting a seminar on History of ... The various other TC 3 program chairs will be contacted and this can be brought up in the combined Program meeting in Chicago.

Handbook - Julie Majurin

The committee is considering moving the mineral oil section. The committee will get everything in place to meet the deadline for handbook submission.

Handbook subcommittee members include Julie Majurin (chair), Ed Hessel, Wasim Akrim, Sheli Porter, Chris Seeton, and Scott Wujek.

Standards – Rob Yost (Chris Seeton substituting)

Standard 86 “Methods of Testing the Floc Points of Refrigeration Grade Oils” – reauthorized in St. Louis, no maintenance required for until 2020.

Standard 99 “Refrigeration Oil Description” – chaired by Chris Seeton. This standard has been changed to a guideline with name GPC 40 and the draft submitted to ASHRAE for public review.

Standard 172P “Method of Test for Insoluble Materials in Synthetic Lubricants and HFC Refrigerant Systems” chaired by Ed Hessel. Issued and published.

SPC 218 “Method of Test for Lubricant and Refrigerant Miscibility Determination” – chaired by Brad Boggess. The committee was unable to meet at this conference. The chair mentioned the draft is about 80% complete and anticipates a final draft by next year. The chair will initiate a call with the committee members before the Chicago meeting.

- New Ideas

A suggestion was made on a guideline for choosing lubricant additives and was tabled for further discussion.

Webmaster – Dave Vincent

The website is up to date. The roster will be included on the website if provided. Suggestion was made to link to google calendar.

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

The MTG Low GWP committee is on the fast track to complete research projects and develop codes and standards. The main committee meets twice at this meeting on Sunday evening and Wednesday morning along with separate meetings for research subcommittee and codes and standards subcommittee. Funding for research comes from ASHRAE (1 million dollars) AHRI and DOE. ASHRAE is sponsoring and supporting 3 active research projects on flammability risk assessment, Guidelines for handling, transport and storage and assessment of mechanical joints.

Membership – Chris Seeton/Joe Karnaz

New roster takes effect July 1, 2017

Management Team

Chair	Chris Seeton
Vice-Chair	Scott Wujek
Secretary	Joe Karnaz
Programs	Ed Hessell
Standards	Rob Yost
Research	Greg Smith
Webmaster	Dave Vincent
ALI Coordinator	Scott Gustafson
MTG Low GWP Liaison	Joe Karnaz

Voting Members

Chris Seeton	Danny Halel
Roberto Urrego	Sarah Kim
Dave Vincent	Joe Nigro
Rob Yost	John Senediak
Sonny Sundaresan	Steve Spletzer
Julie Majurin	Rosine Rohatgi
Greg Smith	

Old Business – Chris Seeton

No new business.

New business – Chris Seeton

The committee recognized Steve Kujak for his recent ASHRAE for the Distinguished Service Award and the Crosby Field Award.

Next meeting

2018 ASHRAE Winter Meeting; Chicago, Illinois; January 20 – January 24, 2018.
TC 3.4 will meet Tuesday, January 23rd.

Adjourn – Chris Seeton

The chair closed the meeting at 2:46 pm through a motion by Joe Nigro and second by Dave Vincent.

Respectfully submitted,
Joe Karnaz – Secretary