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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. 3.2 DATE June 27, 2017

TC/TG/MTG/TRG TITLE System Chemistry

DATE OF MEETING June 26, 2017 LOCATION Long Beach, CA

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Rosine Rohatgi	2015	John Senediak	2016	
Joe Karnaz	2016			
Warren Clough	2016			
Greg Smith	2015			
Brad Boggess	2013			
Tom Leck	2015			
Chris Reeves	2015			
Ed Hessell	2014			
Steve Kujak	2014			
Sonny Sundaresan	2014			

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

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

Minutes – TC 3.2 System Chemistry

Call to Order

Chair Rosine Rohatgi, called the meeting to order at 2:15 pm on Monday, June 26, 2017. The meeting was held in Long Beach Convention Center Seaside Ballroom B. After the introduction of members and guests, a quorum was confirmed with 10 members present; 1 member was absent.

ASHRAE Code of Ethics – A mention of the Code was made to remind all members and visitors of the Code and that it should be adhered to whenever at an ASHRAE meeting.

MOTION #1 A motion was made by Chris Reeves and seconded by Sonny Sundaresan to approve the Agenda for this meeting as written.

MOTION PASSED 10-0-0-CV

MOTION #2 A motion was made by Sonny Sundaresan and seconded by Tom Leck to approve the Minutes from the meeting in Las Vegas in January of 2017.

MOTION PASSED 10-0-0-CV

Report on TC 3.0 Chair Breakfast Meeting

- There is a new restructured TC MOP (Manual of Procedures) that is easier to navigate and find information. It can be found on the ASHRAE website: www.ashrae.org/TCs under the heading *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs – Routine Forms for TC/TG/MTGs/TRGs*.
- ASHRAE will be celebrating its 125th anniversary at the 2020 winter and annual meetings. The Historical Committee has been charged with organizing the Society and Industry history projects to publish articles in the ASHRAE Journal and arrange paper presentations celebrating our technical heritage and technical advances after 1920. If you would like to submit an article or a paper or if a TC would like to organize a program session, the contact person is Emily Sigman (Historical Committee Staff Liaison) at esigman@ashrae.org. The deadline to submit abstracts or outlines is **September 30, 2017**.
- Technical Bulletins (White papers): TC are allowed to develop technical bulletins, which are brief 1-2 page statements on a special interest HVAC&R topic and had to be approved by TAC.
- Additional TC E-mail position aliases are available and posted on the ASHRAE website.
- Distribution of TC minutes has been changed: The TC Minutes Cover Sheet form has been updated and available on ASHRAE website. It is no longer required to send the TAC chair a copy of the minutes after each meeting.
- Basecamp Information from Electronic Communications Committee: Basecamp 3 is a dedicated committee Basecamp site used to better organize, store and distribute online committee files that are needed for TC meetings. Contact ECC webpage at <https://www.ashrae.org/society-groups/committees/electronic-communications-committee>) and scroll down to the section titled Guidance for Basecamp 3.
- **New policies for CEC** (Conference and Expositions Committee): Electronic URLs will now be allowed on the presentation bibliography slides for source citation. Reference requirements:
 - No URLs in the body of the presentation

- Reference shall be in the Bibliography slide(s) only
- Reference format shall follow the Chicago Style Manual and
- Include accessed date for online resources
- URLs and the reference should be as specific as possible and relevant to the citation
- Citation format – use the author-date format

CEC call for reviewers for Conference and Technical Papers for the Chicago meeting. Contact Tiffany Cox, ASHRAE staff at tcox@ashrae0org

- **Publication Tools:**

New ASHRAE technology Portal (www.ashrae.org/technologyportal)

1. ASHRAE Journal Articles (free for members)
2. ASHRAE Research Reports (free for members)
3. ASHRAE Transactions and Conference Papers (available by subscription)
4. ASHRAE Conference Seminars (available by subscription)

New ASHRAE Authoring Portal (www.ashrae.org/authoringportal)

1. Multiple authors review, revise and edit a document together in Word
2. ASHRAE-approved, secure platform for copyrighted intellectual property
3. Contact Mark Owen (mowen@ashrae.org)

ASHRAE Terminology (www.ashrae.org/ASHRAETerms)

1. Free online glossary of more than 3700 terms related to the built environment
2. Help your publication development efforts
3. Give your input to TC 1.6 by checking for accuracy and omissions

LONG BEACH MEETING:

Hyatt and Renaissance Wi-Fi access: **PSAV High Speed** is the network, ashrae2017 is password

Long Beach Convention Center Wi-Fi access: **ashrae2017** is the network, longbeach is password.

Name Badges: Plain white name badges to only attend TC meetings are free; one-day registration or one session registration are available at the ASHRAE Registration desk. One-day option gives access to the Virtual Conference which is viewable on-demand for 18 months.

UPCOMING DEADLINES:

For Chicago Winter Conference: January 20-24, 2018

- Seminar, Forum and Workshop Proposals for Chicago are due by **Tuesday, August 1, 2017.**

Conference Website: <https://ashraem.confex.com/ashraem/w18/cfp.cgi>

Conference Program Chair: Michael Collarin Michael.collarin@parsons.com

Track 9: Refrigerants Mini Track @ Expo

For Houston Annual Conference June 23-27, 2018

- Seminar, Forum and Workshop Proposals for Houston are due by **Friday, February 9, 2018.**

Conference Website: <https://ashraem.org/membership-conferences/conferences/2018-ashrae-annual-conference/call-for-papers>

Conference Program Chair: Cindy Moreno cindym@tmmechanical.com

Liaison Reports:

TAC Section 3 Head, Jay Kohler, thanked the committee and offered his support to our TC. He commended us on the successful seminar we put together which was presented on Monday morning which he attended.

Jay presented Rosine with her TC Chair certificate and thanked her for the work she has done on the committee.

Handbook Liaison, Don Fenton said our handbook is ready for TC vote. Don is rolling off as the liaison for this committee.

Research Liaison, Steve Kujak, made a comment that when we have co-sponsorship on research projects we need to make sure that a representative from each TC is part of the project committee for that research. RAC wants to see the votes for each project submission which reflects the yes, no and abstention votes with explanation for no and abstention votes. A question was asked to Steve about the current research budget which Steve's response was that RAC is not currently prioritizing projects which typically means money is available.

Sub-Committee Reports

Program – Brad Boggess

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.

Chicago:

The mini-track organized by the TC 3 sections is progressing for Chicago. The mini-track will be presented at the expo center and there will be a charge for admission. The track is focused on lower GWP refrigerants and currently there are four different topics with 3-4 presenters in each topic. During the TC 3 combined program meeting another 4 presenters were identified and CEC will be approached to see if another topic can be added. Currently each topic has abstracts from all the presenters.

Houston:

No new ideas were generated for a program for the summer ASHRAE in Houston but it was mentioned that work for RP1774 will be completed and a paper written. It was unclear if this paper goes into the Research Summit without TC sponsorship. Further discussion was tabled until Chicago.

During the TC Chair Meeting on Sunday morning it was presented to the participants that ASHRAE will soon be celebrating 125 years as an organization. As part of this milestone ASHRAE would like to invite individuals or TC groups to present on topics related to the history of specific groups. Even though this doesn't take place until 2020, program ideas are currently being generated and abstracts or outlines need to be submitted by September 30th, 2017. It was discussed that TC 3.2 along with TC 3.1, TC 3.3 and TC 3.4 should organize a presentation. Joe Karnaz volunteered to take the lead to organize.

No other program idea was generated.

Handbook – Gregory Smith

The handbook revision is completed with updates and additions. The handbook committee submitted the draft to the chair for TC vote and approval. The handbook chair recognized the committee members and thanked them for their work.

MOTION #3 A motion was made by Chris Reeves and seconded by Ed Hessell to approve the Handbook revision as recommended by the Handbook Committee.

MOTION PASSED 10-0-0-CV

The vote count was passed to Handbook Chair Greg Smith and Handbook Liaison Don Fenton.

Special thanks to the Handbook Chair and committee for getting this done in a timely manner.

Standards –Rob Yost

- GPC 38P – “Metal Pressure Vessel Method to Test Materials Used with Refrigeration Systems”
 - Joe Karnaz – Chair. Committee members are Alan Cohen, Ed Hessell, Brad Boggess, Rosine Rohatgi, Elyse Sorenson and Chris Seeton. The committee has finished the public review draft which was voted on and approved. The required paperwork has been filled out and submitted to ASHRAE. Joe Karnaz will use the GPC38 meeting time set aside for today to meet with the Liaison to discuss if any other details are needed.
- SPC 97-2007 – Sealed Glass Tube Method to Test for Chemical Stability of Materials for Use Within Refrigerant Systems
 - Chris Seeton – Chair. Committee will meet on Tuesday morning at 9:30. The subcommittee will be wrapping up reaffirmation of the standard shortly and will submit to the committee for vote by letter ballot.

During the meeting in Las Vegas, discussion took place about a new standard (Method of Testing the Compatibility of Materials with Refrigerant and Lubricant) and a draft of a TPS was presented to the committee. It was decided this should be a guideline and the scope needed to be refined. Steve Baker asked for help from some of the committee members to review the current scope and suggestions for revision. A review committee was formed consisting of Steve Baker, Joe Karnaz, Rob Yost, Sonny Sundaresan and Casey Scruggs. Steve Baker will coordinate with the new committee and bring the proposal back to the TC for vote.

No other new standard idea was discussed.

Research – Mark Baker (Rosine Rohatgi/Joe Karnaz Substituting)

- WS 1774 “Effects of System Chemicals Towards the Breakdown of Lubricants and Lower GWP Refrigerants” The contractor is Spauschus Associates. Rosine Rohatgi gave an update on the project. Sealed tube studies are complete and draft of results were submitted to the PMS (Julie Majurin, Chris Seeton, Greg Smith and Ivan Rydkin). The project should be completed by August 31, 2017.
- Past Ideas
 - An RTAR is being drafted on “Chemical Stability of New Refrigerant Blends Components; R-1123 and R-1130(E). The committee could not come to an agreement on direction to take on this RTAR, particularly around testing R-1130(E). The committee is suggesting moving in a different direction and focusing on R-410A substitute refrigerants with small amounts, ~3% of lubricant present. The committee will submit a revised draft RTAR.
- Previous ideas generated from research subcommittee meeting
 - Compatibility of rubber hoses with HFO refrigerants. Chris Seeton is working on this draft and will submit to the incoming chair for letter ballot vote.

- Other
 - During the Sunday TC 3 Research subcommittee meeting it was decided that more work around chemical stability and other aspects of lower GWP refrigerant interaction was needed. An Ad Hoc committee directed by Joe Karnaz and Chris Seeton will be put together a draft roadmap for future research needs. Additional committee members that volunteered are: Chris Reeves, Joe Nigro, Rosine Rohatgi and Sonny Sundaresan. Steve Kujak also commented that he has already mentioned this direction to Mike Vaughn and potential research money could be available if the scope and need was strong enough.

Webmaster – Dave Vincent

The website is up to date.

Membership – Joe Karnaz

The following TC 3.2 committee roster will take effect July 1st, 2017:

Warren Clough – Chair/VM
Ed Hessel – Vice Chair/VM
Joe Karnaz – Secretary/VM
Rob Yost – Standards/VM
Greg Smith – Handbook/VM
Dave Vincent – Webmaster/VM
Tom Leck – MTG Low GWP/VM
Brad Boggess – Programs/CM
Mark Baker – Research/CM
Scott Gustafson – ALI/CM
Danny Halel – VM
Sarah Kim – VM
Steve Kujak – VM
Chris Reeves – VM
John Senediak – VM
Sonny Sundaresan/VM

MTG Lower GWP Refrigerants – Tom Leck

Tom Leck updated the TC on current MTG LGWP activities which is moving at a very fast pace because of potential commercialization of some of the flammable refrigerants that could be used. Research along with writing Codes and Standards is currently the main focus of this MTG.

Old Business

No old business was brought before the committee.

New Business

The chair recognized Steve Kujak and Tom Leck for receiving ASHRAE Distinguished Service Awards and Steve for receiving the Crosby Field award given to the highest rated paper presentation.

Chair Rosine Rohatgi was recognized and thanked by the committee for her leadership for the last two years.

Adjournment

The meeting was adjourned at 3:45 pm by Chair Rosine Rohatgi.

Respectfully submitted,

Joe Karnaz – Secretary