

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS,
INC.**

**1791 Tullie Circle, N.E./Atlanta, GA 30329
404-636-8400**

TC/TG/TRG MINUTES COVER SHEET

(Minutes of all TC/TG/TRG Meetings are to be distributed to all persons listed below within 60 days following the meeting.)

TC/TG/TRG NO 3.3 DATE August 12, 2015

TC/TG/TRG TITLE Refrigerant Contaminant Control <http://tc33.ashraetcs.org/>

DATE OF MEETING June 30, 2015 LOCATION Atlanta, GA

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Julie Majurin – Chair	VM			Joe Nigro – Vice Chair & Program
Debra Kennoy	VM			Chris Reeves – Handbook
	NQM	Alice Reimer – IM		Frank Nagy – Secretary & Membership
	VM	Ray Thomas – Research		Rob Yost – Standards,
Glen Steinkoenig	VM			Ed Hesssell, Knut Petry, Juan Flores
Marc Scancarello	VM			Roberto Urrego, John Senediak, Chris Urban
	VM	Danny Halel		Brad Boggess, Greg Smith, Jay Field
	VM	Bob Woods		Joe Karnaz, Steve Kujek, Kyle Whitaker, Leonard Challenger
	VM	Joe Longo		Scott Gustafson, Chris Seeton
Rosine Rohatgi	VM			Kyle Weidmayer, Yanwei Cen
Alan Cohen - Webmaster	VM			Ivan Rydkin, Elyse Sorenson
				Jorge Cabrera, Mikelann Scerbo

DISTRIBUTION

<i>All Members of TC/TG/TRG plus the following:</i>	
TAC Section Head:	<u>Jay Kohler</u>
TAC Chair: TAC Vice-Chair:	<u>Eric Adams</u>
All Committee Liaisons As Shown On TC/TG/TRG Rosters:	Mark Spatz - Research Ramon Pons – Handbook Malcolm Knight – Standards William Fleming – Special Pubs C Brian Wandling – Program Stephen Piccolo – CTTC Darin Nutter – ALI/PDC
Manager Of Standards	Stephanie C Reiniche
Manager Of Research & Technical Services	Mike Vaughn
Admin Asst – Technical Services	Tara Thomas

Note: "These draft minutes have not been approved and are not the official, approved record until approved by this committee."

Minutes – TC 3.3 Refrigerant Contaminant Control

1) Call to Order

Julie Majurin (Chair), called the meeting to order at 3:30 pm on Tuesday, June 30, 2015. The meeting was held at the Atlanta Hilton, Salon D (2) Room in Atlanta, GA. After introduction of members and guests, a quorum was confirmed with 6 / 10 voting members present. There were no changes or additions to the minutes.

MOTION #1: to approve the minutes was made by Alan Cohen & seconded by Rosine Rohatgi. Motion passed 6-0-0.

2) Report on TC 3.0 Chair Breakfast Meeting – Julie Majurin

- Per CEC, effective for St. Louis meeting, future presenters are required to complete a disclosure form.
- Comment was made that it would be better for the St. Louis track: Advances in Refrigeration Systems & Alternatives to be conducted at the winter meeting (Section. 3 groups)
- Provincial Corresponding Member may join the TC via the website; afterwards, the TC Chair would move / recognize them as a Corresponding Member.
- The 8th Beta Electronic Meeting was successful (via teleconference) for several TCs; this will allow for meeting quorum should Voting Members not be able to attend the conferences.
- For those interested in helping ASHRAE to review papers, etc, please contact Tiffany Cox of ASHRAE.
- Upcoming Specialty Conferences particular to Section 3 committees.
 - ICR 2015 Yokohama Japan
 - CLIMA 2016 Denmark

Upcoming meetings

- Orlando - January 2016
- St. Louis – June 2016

Liaison Comments:

- Jay Kohler (new Section 3 Head): introduced himself and thanked everyone for their work and efforts. Also, noted that there are ASHRAE training programs available for new members and new committee members (please see website).
- Mark Spatz (Research): stated that budget is balanced and that future proposals will specify contractor milestones.

Sub-Committee Reports

3) Program – Joe Nigro

- There were no seminars or papers for Atlanta.

- There were (2) conference papers submitted for Orlando: RP 1665 (R-40 Reactivity via Steve Kujek) & RP 1641 (Effect of Unsaturated Fluorocarbon Contaminants via Rosine Rohatgi); however, RP 1641 will be pushed out to St. Louis (abstract resubmitted).
- Orlando Seminar – “Synthetic Lubricants: Making the Commercialization of Low GWP Refrigerants a Reality” or “Synthetic Lubricants: Making Environmentally Responsible and Energy Efficient Refrigeration Technologies a Reality” dual submission with TC 3.2. Will also consider a potential off site (at EXPO) seminar.
- Joe will also follow up with ASHRAE to consider putting the Refrigeration track back to the Winter meeting vs Summer meeting for better attendance.
- “Best Practices in Manufacturing, Field Installations & Servicing Refrigeration & AC Systems” co-sponsored with TC 10.7 (Georgi K.) rejected initially but will be re-submitted.

4) Handbook – Chris Reeves

- Per Glen Steinkoenig (for Chris), Chapter 7 is current (next publication is 2018). Chris is in process of forming subcommittee; Elyse Sorenson volunteered.

5) Standards – Rob Yost

- SPC 35-2014 – “Method of Testing Desiccants for Refrigerant Drying”- was reaffirmed in Dallas (2013) per Rob Yost, subcommittee chair.
- SPC 63.1 – “Method of Testing Liquid Line Filter Driers” – subcommittee met in Chicago and Chris Reeves will take over as chair in Orlando. Members are: Jorge Cabrera, Alan Cohen & Rob Yost.
- SPC 63.2 – “Method of Testing Liquid Line Filter Drier Filtration Capacity” – per subcommittee chair, Glen Steinkoenig, the goal to finalize by St. Louis (summer 2016 meeting) is realistic.
- SPC 78 – “Method of Testing Flow Capacity of Suction Line Filters and Filter Driers” – subcommittee held first meeting in Chicago; revision under way. Chris Reeves is subcommittee chair; members are: Alan Cohen, Juan Flores, Julie Majurin & Rosine Rohatgi.
- “MOT for the Effects of System Contaminants on Expansion Devices” – it was agreed after some discussion to remove this item in Chicago (Marc Scancarello, subcommittee chair).
- “MOT of Liquid Line Filter Driers for Organic Acid Capacity” – John Senediak, subcommittee chair stated that the TPS submitted was approved with minimal revisions. **MOTION #2:** to accept revisions was made by Glen Steinkoenig & seconded by Debra Kennoy; motion passed 5-0-1 (Abstained stated that there was not enough information / understanding to properly make a vote.)
 - *SPC 63.3 “Method of Testing Acid Filters” in limbo as a draft since 1989 was never approved. TRP- 1028 followed and a final report was issued in 2002 but was never approved as well. (Glen Steinkoenig authored a TPS: “MOT the Ability of Liquid Line Filter Driers or Adsorbents to Remove Organic Acid” for Denver (2013): a motion to spawn a standard on organic acid removal passed.)
 - **John Senediak, subcommittee chair, subcommittee members: Rob Yost & Glen Steinkoenig.

6) Research – Raymond Thomas

- RP 1641: “Effect of Unsaturated Fluorocarbon Contaminants on the Reliability and Performance of HVAC&R Equipment” – Rosine Rohatgi of Spauchus completed final report and will be presented in St. Louis.
- RTAR / Work Statement – 1740: “Hydrogen Fluoride Capacity of Desiccants” – a closed session was conducted by the executive committee to evaluate contractor proposals. There was one bidder only. The PES rating for the contractor was 70 / 100 (which is the minimal score required and was low due to experience concern) per

Research Liason. **MOTION #3:** to accept the PES rating and recommendation to reject the contractor bid due to barely making the minimal score was made by Alan Cohen and seconded by Glen Steinkoenig; motion passed 6-0-0. **MOTION #4:** to ask RAC to go out and re-bid this project was made by Glen Steinkoenig and seconded by Debra Kenney; motion passed 6-0-0. Alan Cohen will be sent alternate bidders in follow up.

- RTAR: “Determine Maximum Allowable Level of Impurities in HC (non-fluorocarbon) Refrigerant Systems”- continues to be on hold, per Rob Yost, await field feedback via trial specification set by AHRI-700.
- RP 1665 - “Reactivity of R-40” work statement to fast track research was approved. (There is a safety concern with the reactivity of R-40 contaminant in R-134a primarily with aluminum.) Data indicates reactivity from 100ppm to 5% levels. Final report is complete and paper to be issued in Orlando.
- RTAR - “Distribution of Water between Vapor and Liquid Phases of Low GWP Refrigerants ” – was sent to MORTS; Brad Boggess (author) awaits feedback. Background: RTAR was modified with title change and R-134a was added as control; finalized version was submitted to committee members prior to Chicago and motion to accept passed TC 3.1, 3.2 & 3.4 (co-sponsors).
- New RTAR -“In Situ Identification of R-40 in Remediation and its Degradation Products” was championed by Glen Steinkoenig. After some discussion, the champion and committee decided it was not necessary to pursue even as a long term project.
- New RTAR – “Effect of Additive Residues in Retrofitted Equipment”: Chris Seeton to champion with Chris Reeves & Sonny Sundaresan to assist. After some discussion, the champions and committee decided it was not necessary to pursue even as a long term project.
- New RTAR – “System Chemistry Effects in Wet CO2 Units”: Glen Steinkoenig to champion (TC 3.2 research topic; recommending co-sponsor via TC 3.3) with Chris Seeton & Marc Scancarello to assist: after some discussion, the champions and committee decided it was not necessary to pursue even as a long term project.
- New RTAR – “Effects of Non-Condensable & Other Contaminants on Lowering the Efficiency/Capacity/Healthiness of Buildings”: Rob Yost to champion; this was tabled for next meeting for further discussion.
- New RTAR – “Breakdown of Lubricant at High Discharge Temperature”: Liz Dixon (champion); after some discussion, the consensus was to drop this project.
- A motion from the Chicago (2015) meeting for TC 3.3 to co-sponsor a work statement following up to the work done in RP 1410 but including lower GWP refrigerants with TC 3.2 & 3.4 was made by Glen Steinkoenig & seconded by Rosine Rohatgi; motion passed 8-0-0; Chair not voting.

7) **Webmaster – Alan Cohen**

- Website is in compliance (<http://tc33.ashraetcs.org>) & up to date; please send Alan TPS’ to be posted.

8) **Membership – Frank Nagy**

- **Voting Members for upcoming society year were reviewed (through June 30, 2016):** Danny Halel, Rosine Rohatgi, Julie Majurin, Glen Steinkoenig, Marc Scancarello, Joe Longo, Bob Woods, Ray Thomas, Alan Cohen, Joe Nigro, Rob Yost & Alice Reimer-NQM.
- **Committee positions for current & next society year were reviewed (through June 30, 2016):** Julie Majurin (Chair), Rob Yost (Standards), Raymond Thomas (Research), Joe Nigro (Program & Vice Chair), Alan Cohen (Webmaster), Chris Reeves (Handbook) & Frank Nagy (Secretary & Membership).

9) **Old Business**

- None

10) **New Business**

- Marc Scancarello asked all in attendance to please fill out a short survey via AHRI on 2L flammable refrigerants which is due July 10.
- Alan Cohen and Debra Kennoy were recognized with a round of applause having each received: ***The Distinguished Service Award.***

11) **Adjournment**-the meeting was adjourned at 5:09PM following the closed executive committee session.
adjourned at 4:37PM.

Respectfully submitted,

Frank Nagy
Secretary TC 3.3