

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

**1791 Tullie Circle, N.E./Atlanta, GA 30329
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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 February 9, 2015

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

DATE OF MEETING January 27, 2015 LOCATION Chicago, IL

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			Brad Boggess – Handbook
Alice Reimer – IM	NQM			Frank Nagy – Secretary & Membership
Ray Thomas – Research	VM			Rob Yost – Standards,
Glen Steinkoenig	VM			Ed Hesssell, Knut Petry, Juan Flores
Marc Scancarello	VM			Roberto Urrego, John Senediak, Chris Urban
	VM	Danny Halel		Chris Reeves, Greg Smith, Jay Field
Bob Woods	VM			Joe Karnaz, Steve Kujek, Kyle Whitaker, Leonard Challenger
Joe Longo	VM			Scott Gustafson, Chris Seeton
Rosine Rohatgi	VM			Kyle Weidmayer, Yanwei Cen
	VM	Alan Cohen - Webmaster		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 Manager Of Research & Technical Services	Stephanie C Reiniche 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, January 27, 2015. The meeting was held at the Palmer House Hilton Adams Room in Chicago, IL. After introduction of members and guests, a quorum was confirmed with 9 / 11 voting members present. There were no changes or additions to the minutes.

MOTION #1: to approve the minutes was made by Raymond Thomas & seconded by Glen Steinkoenig. Motion passed 9-0-0.

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

- Jay Kohler is the new Section 3 Chair.
- Programs for Atlanta are due February 9th, 2015.
- Due to our recent issues with getting programs approved, it was recommended that the Section. 3 groups suggest particular tracks to CEC for St Louis.
- AdHoc committee between TAC and CEC has been formed to address particular issues.
- Website Update – The TC can make suggestion for other information to post to the website.
- Employment Discipline should be updated on your Bio.
- Upcoming Specialty Conferences particular to Section 3 committees.
 - ICR 2015 Yokohama Japan

Upcoming meetings

- Atlanta - June 2015
- Orlando - January 2016

Liaison Comments:

Sub-Committee Reports

3) Program – Joe Nigro

- No seminars were approved for Chicago. Future plans are to co-sponsor seminars with TC 3.2, 3.3 & 3.4 having a better chance to get approval as a group submission. The initial target is a seminar for Orlando approximately titled “Synthetic Lubricants: Making the commercialization of Low GWP refrigerants a Reality” or “Synthetic Lubricants: Making Environmentally Responsible and Energy Efficient Refrigeration Technologies a Reality “to be included in the “Cutting Edge Technology” Track which is focused on net zero buildings and increasing efficiency.
 - Target Speakers include:
 - System Builder (importance of the lubricant in the systems.
 - Compressor Builder (challenges of lubricating with the new refrigerants)

- Refrigerant Manufacture (challenges of optimizing refrigerant performance in the presence of a lubricant) (lubricant considerations)

Contingency 1: If not accepted for Orlando, than the goal is a conference paper. Contingency 2: Do an open seminar in Orlando during TC (3.3-3.4 on Tuesday) if rejected (ensure that we get proper exposure in the technical program) Contingency 3: Aggressively lobby the CEC for a separate track for St. Louis and resubmit the seminar. **MOTION #2:** to co-sponsor future seminars with TC 3.1, 3.2 & 3.4 was made by Marc Scancarello & seconded by Debra Kennoy; motion passed 9-0-0.

- Seminar on “CO2 System Contaminant Control & Retrofit” was rejected (Danny Halel & Rob Yost presenters).
- “Best Practices in Manufacturing, Field Installations & Servicing Refrigeration & AC Sytems” to be co-sponsored with TC 9.3 & 10.7 was submitted for Atlanta.
- **MOTION #3:** to co-sponsor with TC 3.2 material compatibility work as a conference paper (including RP 1665 & 1641) was made by Rosine Rohatigi & seconded by Joe Longo; motion passed 9-0-0.

4) Handbook – Brad Boggess

- Chapter 7 is current; Brad is turing over the committee to Chris Reeves. Chris forming a new committee in Atlanta. Julie Majurin, TC 3.3 Chair, recognized Brad and his committee in appreciation for their efforts.

5) Standards – Rob Yost

- SPC 35-2010 – “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 and chair will submit by February end for letter ballot; it will be finalized by next meeting. (Scope only encompasses halogenated hydrocarbons; perhaps change to add other fluids?) Bob Woods, subcommittee chair / members: Jorge Cabrera, Chris Reeves, Alan Cohen, Jay Field & Rob Yost.
- SPC 63.2 – “Method of Testing Liquid Line Filter Drier Filtration Capacity” – subcommittee held first meeting; goal to finalize is by summer 2016 meeting. Glen Steinkoenig, subcommittee chair.
- SPC 78 – “Method of Testing Flow Capacity of Suction Line Filters and Filter Driers” – subcommittee held first meeting; revision under way. Chris Reeves, subcommittee chair / members: 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 (Marc Scancarello, subcommittee chair).
- Added Standard for: “MOT of Liquid Line Filter Driers for Organic Acid Capacity”; Rob Yost to review with Standards Committee.
 - *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.)
 - **Per John Senediak, subcommittee chair, there has been no response from ASHRAE as of yet. Please contact John if interested in joining the subcommittee; subcommittee members: Rob Yost.

6) Research – Raymond Thomas

- RP 1641: “Effect of Unsaturated Fluorocarbon Contaminants on the Reliability and Performance of HVAC&R Equipment” – Rosine Rohatigi of Spauchus to complete final report in February; there will be a conference paper for Orlando.

- RTAR / Work Statement – 1740: “Hydrogen Fluoride Capacity of Desiccants” – **MOTION #4**: to approve the revision was made by Raymond Thomas & seconded by Debra Kennoy; motion passed 9-0-0. Alan Cohen, author (unable to attend meeting) was notified (February 6) to submit paperwork to ASHRAE.
- 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.
- RTAR - “Distribution of Water between Vapor and Liquid Phases of Low GWP Refrigerants ” was modified with title change and R-134a was added as control. Finalized version was submitted to committee members prior to Chicago and ready for TC approval per Brad Boggess author; TC 3.1, 3.2 & 3.4 co-sponsors. **MOTION #5**: to accept as written was made by Glen Steinkoenig & seconded by Bob Woods; motion passed 9-0-0.
- New RTAR -“In Situ Identification of R-40 in Remediation and its Degradation Products” was championed by Glen Steinkoenig. Committee decided to await feedback via TRP-1665 report first before pursuing. Alan Cohen posted on website. This continues to be on hold for now; ASHRAE to possible co-fund with AHRI.
- New RTAR – “Effect of Additive Residues in Retrofitted Equipment”: Chris Seeton to champion with Chris Reeves & Sonny Sundaresan to assist.
- 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, this is on hold for now.
- New RTAR – “Effects of Non-Condensable & Other Contaminants on Lowering the Efficiency/Capacity/Healthiness of Buildings”: Rob Yost to champion, this is on hold for now.
- New RTAR – “Breakdown of Lubricant at High Discharge Temperature”: Lix Dixon to champion was unable to attend meeting and this is on hold for now.
- **MOTION #6**: 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 (as reported by Frank Nagy for Alan Cohen).

8) Membership – Frank Nagy

- **Voting Members for current society year were reviewed (through June 30, 2015):** Danny Hael, Rosine Rohatgi, Julie Majurin, Debra Kennoy, Glen Steinkoenig, Marc Scancarello, Joe Longo, Bob Woods, Ray Thomas, Alan Cohen & Alice Reimer-IM.
 *Voting Members to roll off at the end of this society year: Debra Kennoy.
 **Voting Members to roll on the upcoming society year: Joe Nigro & Rob Yost
- **Committee positions for current & next society year were reviewed (through June 30, 2015):** 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**

- A new standard was proposed by Jay Field titled: “Standard for assuring Chemical Stability between Process Chemicals and the Lubricant and Refrigerant in a System.” The standard would be co-sponsored by TC 3.2 / 3.3 / 3.4 with the goal of having AHRI adopt a similar standard and establish compliance criteria for the industry. There will be further discussion on this in Atlanta as to whether this should be a guideline vs a standard.
- Jay Field is retiring after this meeting; Chair commended him for all his support over the years. He will be missed.

11) **Adjournment- MOTION #7:** to adjourn meeting was made by Glen Steinkoenig & seconded by Bob Woods; meeting adjourned at 4:37PM.

Respectfully submitted,

Frank Nagy
Secretary TC 3.3