

**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 May 12, 2014

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

DATE OF MEETING January 21, 2014 LOCATION New York, NY

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Rob Yost – Chair & Standards	VM			Joe Nigro – Program
Debra Kennoy	VM			Brad Boggess – Handbook
Alice Reimer - IM	VM			Ray Thomas – Research
Joe Karnaz	VM			Danny Halel, Sonny Sundaresan, Travis Benanti, Yanwei Cen
Julie Majurin – Vice Chair	VM			Steve Kujak, Eric Newberg
Frank Nagy – Secretary & Membership	VM			Alan Cohen, Chris Urban, Juan Flores, Jorge Cabrera
DannyHalel	VM			Bianca Hydutsky, Ted Li, Tae Kwon, Knut Petry
Glen Steinkoenig	VM			Roberto Urrego, Rosine Rohatgi
Marc Scancarello	VM			Tom Leck; Scott Gustafson
Bob Woods	VM			Warren Clough, Adam Wood
Joe Longo	VM			Scott Wujek, John Senediak
Rosine Rohatgi	VM			Chris Reeves, Greg Smith

DISTRIBUTION

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

TAC Section Head:	<u>Bill Murphy</u>
TAC Chair: TAC Vice-Chair:	<u>Charles Culp</u>
All Committee Liaisons As Shown On TC/TG/TRG Rosters:	Raymond Cohen, Don Bivens – RAC Ramon Pons – Handbook Doug Abramson – Standards William Fleming – Special Pubs C Brian Wandling – Program Mark Tome – CTTC
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."

1) Call to Order

Rob Yost (Chair), called the meeting to order at 3:40 pm on Tuesday, January 21, 2014. The meeting was held at the Hilton Midtown, New York, NY. After introduction of members and guests, a quorum was confirmed with 12 / 12 voting members present. There were no changes or additions to the minutes.

MOTION #1: to approve the minutes was made by Rosine Rohatgi & seconded by Debra Kennoy. Motion passed 12-0-0.

2) Report on TC 3.0 Chair Breakfast Meeting – Rob Yost

Welcome to new and YEA members.

Please update your biography information; there are new categories and classifications.

ASHRAE Exchange-new online Q&A bulletin board service

ASHRAE Workshop-new type of program (1 hour) having 2 presenters with discussions afterwards

TC members are encouraged via CEC to volunteer to review technical papers

Outstanding TC Award (new)-1 TC within each section will be recognized

Upcoming meetings

- Seattle June 2014
- Chicago January 2015

Liaison Comments:

Looking forward to new Workshops where the audience may interact with speaker following their presentation.

Appreciate all your work and efforts.

Sub-Committee Reports

3) Program – Joe Nigro

- Paper given Sunday by John Senediak (TRP 1495 report / TRP 1665 initial data).
- Program for “Contaminant Control 101” was rejected; will re-submit for Seattle as Workshop “Learn what’s important about refrigerant contaminants” Warren Clough to moderate (2 presenters).
- Please contact Joe for any future program ideas.

4) Handbook – Brad Boggess

- Chapter 7 draft for publication was submitted; await ASHRAE feedback.
- Special thanks to Subcommittee members: Alan Cohen, Bob Woods, Joe Longo, Amanda Hickman & Jay Field.

5) Standards – Rob Yost

- SPC 35-2010 – “Method of Testing Desiccants for Refrigerant Drying”- was reaffirmed in Dallas (2013).
- SPC 63.1 – “Method of Testing Liquid Line Filter Driers” – under revision; need to finalize / vote next meeting. 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” – under revision; Glen Steinkoenig subcommittee chair / team to be formed in Seattle.
- SPC 78 – “Method of Testing Flow Capacity of Suction Line Filters and Filter Driers” – under revision; Chris Reeves, subcommittee chair / members: Alan Cohen, Juan Flores, Julie Majurin & Rosine Rohatgi.
- “MOT for the Effects of System Contaminants on Expansion Devices” – (attached to Minutes) was discussed: perhaps conduct a paper / seminar initially prior to making a standard? It was agreed to table this for further discussion in Seattle. Subcommittee Chair, Marc Scancarello / members: Sonny Sundaresan, Rob Yost, Julie Majurin, Brad Boggess & Warren Clough.
- 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; a motion to spawn a standard on organic acid removal passed.) John Senediak will chair subcommittee; team to be formed in Seattle.

6) Research – Raymond Thomas

- Raymond Thomas, Chair recommended authors of RTARs / Work Statements to coordinate with Mark Spatz to help push processing through ASHRAE.
- TRP 1495 – “Effect of Oil on Distribution of Moisture between Vapor and Liquid Phases of Refrigerants” (Authors: Alan Cohen, Raymond Thomas, Rob Yost, Liz Dixon): TC 3.2 and TC 3.4 are co-sponsors. This is an extension of Refrigeration Handbook Chapter 7, Table 2 data for pure refrigerants revised by Research Project 1239. TRP-1495 deals with the effect of oil. Final report was accepted in Dallas. (There is little effect noted with POE and MO with R-134a & R-22; whereas, PAG was more noticeable.) Phase 2 of TRP-1495 was deleted (no longer appropriate).
- TRP 1641 – “Effect of Unsaturated Fluorocarbon Contaminants on the Reliability and Performance of HVAC&R Equipment” – work statement approved and went out for bid with no bidder replies. Vote to modify the work statement to also include alternative means in addition to sealed glass tube testing was made in Dallas. Two contractors provided bids. An Executive Session followed Denver meeting to discuss contractors; contractor was finalized.
- RTAR / Work Statement – “Hydrogen Fluoride Capacity of Desiccants” – draft via Alan Cohen was reviewed: comment made was to correct Chapter 6 (previous Handbook Chapter) reference to Chapter 7. **MOTION #2:** via Glen Steinkoenig and seconded by Rosine Rohatgi to approve for RAC funding; motion passed 12-0-0. Rob Yost will reach out to TC 3.1 & 3.2 to co-sponsor.
- RTAR: “Determine Maximum Allowable Level of Impurities in HC (non-fluorocarbon) Refrigerant Systems”- a trial specification will be set based on additional feedback per the AHRI-700 meeting follow up in NY per Rob Yost.
- TRP 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. McCampbell Analytical was awarded the bid.) Worked to be completed by March in time for next winter meeting in Chicago.
- RTAR - “Distribution of Water between Vapor and Liquid Phases of HFO Refrigerants ” to be re-written (original was done on an older ASHRAE form) by Brad Boggess and updated for R-744, R-600, R32, R1234ze(E), R1233zd(E), R1336mzz(Z), and R1234yf.

- Finalized version to be sent to Mark Spatz post TC vote via letter ballot prior to Seattle or at the Seattle meeting. TC 3.1, 3.2 & 3.4 to co-sponsor.
- 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 to post on website.

7) **Webmaster – Alan Cohen**

- Website is in compliance (<http://tc33.ashraetcs.org>).
- Agenda was not posted prior to meeting due to password change; otherwise, it is up to date.

8) **Membership – Frank Nagy**

- **Current Voting Members through June 30, 2014:** Danny Halel, Rosine Rohatgi, Rob Yost, Julie Majurin, Debra Kenroy, Joe Karnaz, Glen Steinkoenig, Marc Scancarello, Joe Longo, Bob Woods, Alice Reimer-IM, & Frank Nagy.
- **Current committee positions through June 30, 2014:** Rob Yost (Chair & Standards), Raymond Thomas (Research), Joe Nigro (Program), Alan Cohen (Webmaster), Brad Boggess (Handbook); Frank Nagy (Secretary & Membership); Julie Majurin (Vice Chair).
- **Voting Members rolling off effective July 1, 2014:** Rob Yost, Joe Karnaz & Frank Nagy.
- **Voting Members rolling on effective July 1, 2014:** Ray Thomas & Alan Cohen.
- Vice Chair position will be available.
- Corresponding Members will be updated.

9) **Old Business**

- None

10) **New Business**

- None

- 11) **Adjournment- MOTION #3:** to adjourn meeting was made by Glen Steinkoenig & seconded by Bob Woods (12-0-0); meeting adjourned at 4:49PM.

Respectfully submitted,

Frank Nagy
Secretary TC 3.3