

**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 March 2, 2012

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

DATE OF MEETING January 24, 2012 LOCATION Chicago, IL

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Danny Halel – Chair	VM	Doug Gildehaus	VM	Alan Cohen, Don Bivens
Ray Thomas - Research	VM	Debra Kennoy	VM	Chris Reeves, Ted Li, Joe Longo
Scott Gustafson	VM			Ed Hessel, Brad Boggess
Sonny Sundaresan	VM			Dale Carr, Steve Kujak,
Joe Karnaz – Program	VM			Maryline Rassi, John Hughes
Alice Reimer – IM	VM			John Senediak, Rasmus Poulson, Marc Scancorrello, Jorge Cabrera
Frank Nagy - Secy/Membership	VM			Amy Shifflett, Jay Field
Rosine Rohatgi	VM			Roberto Urrego, Tony Korba
Julie Majurin	VM			Hewitt Gaudin, Ken Lilje
				Ramon Pons, Yanwei Cen
				Knut Petry, Dan Wright
				Brett Van Horn, Corey Anderson

**DISTRIBUTION**

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

TAC Section Head:	<b><u>Bill Murphy</u></b>
TAC Chair: TAC Vice-Chair:	<b><u>Charles Culp</u></b>
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 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."

### 1) Call to Order

Danny Halel (Chair), called the meeting to order at 3:30 pm on Tuesday, January 24, 2012. The meeting was held at the Wabash room at the Hilton Palmer House Hotel, 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 Sonny Sundaresan and seconded by Scott Gustafson. Motion passed 8-0-0 (Chair Not Voting).

### 2) Report on TC 3.0 Chair Breakfast Meeting – Danny Halel

ASHRAE has rebranded itself with a new logo effective March 1.

The roster update process will change this year from Excel to on line conversion at the meeting in real time.

TC or CM members may not speak on behalf of the TC unless first obtaining TC approval.

The new & improved ASHRAE website is easier to navigate and allows for webinars.

Upcoming conferences of interest: Purdue in June (IN) & NIST in October (MD).

There were (2) meetings running live on line during Chicago; the plan is to have all future meetings beginning in 2013 in this format which will allow for easier meeting access and hopefully achievable quorum.

Liaison Comments:

Handbook-Chapter 6 will become Chapter 7. Handbook Committee Chair position is open and needs to be filled. Handbook update is due in June 2013.

Research-there are 53 research topics (64 last year). RTAR & Work Statements this year total (8); please note more funding is now available.

### Sub-Committee Reports

#### 3) Program – Joe Karnaz

- The seminar with co-sponsor TC 3.2 “Issues with CO2 refrigerant” chaired by Ken Lilje as well as “Contaminant Control in Transcritical Systems” chaired by Joe Karnaz for Chicago were removed.
- Previous MOTION from Montreal via Joe Karnaz who moved to sponsor a forum in Chicago entitled “What contaminants do we need to consider in low GWP refrigerants?” with Rob Yost as moderator (Sonny Sundaresan seconded the motion; motion passed 5-0-0 CNV) was rejected; however, Rob Yost will resubmit for San Antonio. *ACTION ITEM (Danny Halel):* Section Head and TAC Chair to plead for approval.
- **MOTION #2:** Jay Field moved to sponsor a seminar entitled “Acid Number & Other Health Indices for System Chemistry” for San Antonio and seconded by Rob Yost to be chaired by Sonny Sundaresan (with two speakers); motion passed 8-0-0 (Chair Not Voting).
- The following seminars all pertaining to contaminant control will be combined for Dallas and chaired by Sonny Sundaresan; speakers include Chris Reeves (additional speakers still needed):
  - “History of System Chemistry Part II & Contaminant Control” (previously for San Antonio)
  - “History of Contaminant Control” (previously for San Antonio)
  - “Lessons Learned in Contaminant Control” (previously for San Antonio)
  - “System Contaminant Control & Retrofits” (previously postponed for further discussion in Chicago)

#### 4) Handbook – (position open)

- Danny announced that the Handbook Subcommittee Chair position is open.
  - Either Jay Field or Brad Boggess will take the position.
- Subcommittee members are: Danny Halel, Sonny Sundaresan, Alan Cohen, Bob Woods, Joe Longo & Jay Field.

## 5) Standards – Rob Yost

- SPC 35-2010 – “Method of Testing Desiccants for Refrigerant Drying”  
Complete & published June 2010.
- SPC 63.1 – “Method of Testing Liquid Line Filter Driers”  
Reaffirmed in 2004; subcommittee chair Bob Woods had a meeting in Chicago with some changes made which will be redistributed. (Members: Jorge Cabrera, Chris Reeves, Alan Cohen, Jay Field).
- SPC 63.2 – “Method of Testing Liquid Line Filter Drier Filtration Capacity”  
Reaffirmed in 2009; current with no action required until 2013.
- SPC 78 – “Method of Testing Flow Capacity of Suction Line Filters and Filter Driers”  
Reaffirmed in 2006. (Juan Flores was appointed chair of review/revision subcommittee at the Las Vegas with Sonny Sundaresan to help).

## 6) Research – Raymond Thomas

- 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 6, Table 2 data for pure refrigerants revised by Research Project 1239. TRP-1495 deals with the effect of oil. Project went out for bid and three proposals were received. (The PES met in Montreal to evaluate the proposals and made a recommendation to be considered by TC 3.3 in executive session.) Hope to present data in Dallas.
- New RTAR – “Effect of Unsaturated Fluorocarbon Contaminants on the Reliability and Performance of HVAC&R Equipment” – was submitted. Ray Cohen will get a number assigned to it (TRP 1641). Approval for work statement (February 2012).
- New RTAR – “Adsorption of HF on Desiccants” – Alan Cohen previously reported that the RTAR was not written and questioned how this differs from RP-793 “MOT for inorganic acid capacity of desiccants used in liquid line filter driers” which was completed in 1998. First draft now in progress per Alan.
- Rob Yost will write an RTAR: “Determine maximum allowable level of impurities in natural (non-fluorocarbon) refrigerant systems.” Rob is still working on it (jointly with AHRI 700).
- “MOT for Capillary Tube Plugging” – previous MOTION in Montreal: Sonny Sundaresan moved to create an SPC to develop a standard for “MOT for capillary tube plugging” to be chaired by Sonny Sundaresan. Rob Yost seconded the motion. In discussion it was felt that TPS (title, purpose, scope) was needed prior to voting on the motion. Previous MOTION in Montreal: Joe Karnaz moved to postpone consideration of the motion until the next meeting in Chicago. The motion was seconded by Scott Gustafson. The motion to postpone was carried by vote of 4-0-1 (chair not voting). The chair appointed an ad-hoc subcommittee to write the TPS: Sonny Sundaresan (chair), Rob Yost, Julie Majurin, Brad Boggess, & Warren Clough. Marc Scancarello will take over as chair (with Sonny added to subcommittee); TPS to be written by San Antonio for discussion.
- RTAR-“Breakdown of Lubricants at High Discharge Temperature in Transcritical Systems”-Sonny Sundaresan to write RTAR for discussion from Las Vegas meeting continues to be on hold as sharing of information difficult.
- **MOTION #3:** Julie Majurin moved to co-sponsor with TC 3.2 & 3.4 an RTAR-“Reactivity of R-40” seconded by Raymond Thomas passed 8-0-0 (Chair Not Voting). (There is a safety concern with the reactivity of R-40 contaminant in R-134a primarily with aluminum.)

7) **Webmaster – Alan Cohen**

- Website is in compliance and was updated in July on ASHRAE server (<http://tc33.ashraetcs.org>).

8) **Membership – Frank Nagy**

- Update your ASHRAE bio.
- New Corresponding Member information was given to Danny Halel (Chair).
- As of July 1, 2012: new Voting Members will be: Glen Steinkoenig, Joe Longo, Bob Woods & Marc Scancarello. Rolling off will be: Danny Halel & Rosine Rohatgi.
- Committee positions as of July 1, 2012: Rob Yost (Chair & Standards), Raymond Thomas (Research), Joe Nigro (Program), Alan Cohen (Webmaster), Jay Field or Brad Boggess (Handbook); Vice Chair has yet to be determined.

9) **Old Business**

- SPC 63.3 “Method of Testing Acid Filters” in limbo and not approved. *ACTION ITEM: Danny Halel to check status by San Antonio.*

10) **New Business**

- The committee gave a moment of silence in honor and memory for dearly departed members: Bob Doerr (Life Time Member and Fellow) who passed away on September 1 as well as Dietrich Huttenlocher (member since 1963) who passed away on November 23; both were very active members, great peers and will surely be missed.

- 11) **Adjournment-MOTION #4:** to adjourn meeting was made by Joe Karnaz & seconded by Alice Reimer; meeting was adjourned at about 5:13PM.

Respectfully submitted,

Frank Nagy  
Secretary TC 3.3