

**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 March 20, 2017

TC/TG/TRG TITLE Refrigerant Contaminant Control <http://tc0303.ashraets.org/>

DATE OF MEETING January 31, 2017 LOCATION Las Vegas, NV

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Joe Nigro – Chair	VM			Glen Steinkoenig – Research , Elyse Sorenson – Webmaster ,
Rob Yost – Standards	VM			Frank Nagy – Secretary & Membership , Marc Scancarello
	NQM	Alice Reimer – IM		Greg Smith, Angel Mendez, Tony Barthel
	VM	Ray Thomas		Joe Karnaz, Ken Lilje, Jian Sun-Blanks,
Chris Reeves – Vice Chair & Handbook	VM			Knut Petry, Sunny Sundaresan,
	VM	Alan Cohen		Roberto Urrego, John Senediak
Danny Halel	VM			John Witthouse, Juan Flores, Yanwei Cen
Julie Majurin	VM			Steve Kujak, Bill Morton,
Debra Kennoy	VM			Neils Bidstrup, Felix Flohr
Rosine Rohatgi	VM			Scott Wujek, Don Fenton,
	VM	Ivan Rydkin (joined meeting late)		Joe Longo, Chris Campo, Robert Chevasco
Brad Boggess	VM			

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:	Steve Kujak -- Research Don Fenton – Handbook Niels Bidstrup – Standards Marc Scancarello -- MTG 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

Joe Nigro (Chair), called the meeting to order at 3:31 pm on Tuesday, January 31, 2017. The meeting was held at the Caesars Palace Las Vegas Floor Promenade: Messina Room, in Las Vegas, NV. After introduction of members and guests, a quorum was confirmed with 8/ 11 voting members present.

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: to approve the minutes was made by Rob Yost & Debra Kennoy seconded. Motion passed 8-0-0

2) Report on TC 3.0 Chair Breakfast Meeting – Joe Nigro

- A new / Provisional Member may join the TC via the website (click on Membership & JOIN TC 3.3 box); afterwards, the TC Chair would move / recognize them as a Corresponding Member.
- A couple of items were identified that Section 3 TC's and the MTG – Low GWP refrigerants could coordinate with each other. Steve Kujak volunteered to pull together the section and MTG for a discussion on the following items.
 - **Refrigerants Mini-Track @ Chicago Expo:**
 - CEC has worked very hard to get “refrigeration and/or refrigerants” track back on schedule with the winter meetings. In this regard, a mini track on “refrigerants” has been developed that will be at the AHR Expo in Chicago. This is a great opportunity for us to get out in front of members who attend the show and not the technical conference. We will have a number of slots that we will need to fill and come up with a plan on topics and speakers. We can do seminars, forums, etc. If you have a technical paper or conference paper you want to submit or have submitted for Chicago, it was suggested to allow it to follow the standard process and present at the technical conference side, but you could present it again in this mini-track. We need to have a program plan and review in Long Beach with CEC for input and suggestion ahead of the August 1 deadline for programs for Chicago.
 - **Develop a longer term process for coordination of Research/Programs in Section 3 and MTG:**
 - A number of the TC 3's meet concurrently to discuss research already. It was discussed at the TC 3 Chair breakfast and recommended by CEC to coordinate and develop longer range plans for programs across the Section and MTG to prevent gaps we have had in the past with not getting programs accepted. Section 10 already does this and it works effectively with them. We need to find time slots to have concurrent discussion for Section 3 TC/MTG program and research. TC 3.2, 3.3, 3.4 already do this for research (we can invite TC 3.1 and TC 3.6 to join). We need to find 2 two- hour slots to pull together members in an already used time slot, with appropriate room size, to have discussions for programs concurrently.
 - It was also suggested that we have a longer range, coordinate plan for Program and Research. RAC already does this for Section 3/MTG (pulls all research together into one report and there is a Section 3/MTG research liaison who is Steve Kujak) so this process is in place already for members and could be used for this purpose. Programs would require a Section 3/MTG liaison or a process for program chairs to fill out, like the RAC report, to help coordinate programs and communicate them with CEC members. Steve will work with Mike Vaughn to help pull together a meeting slot in Feb to start to have these discussions.
- Hightower Award Recipient is Paul Lindahl from TC 3.6 and TC 8.6
- Service to ASHRAE Research Award Recipient is Joseph Huber of TC 1.3

- New ASHRAE Technology Portal is available for members to access free ASHRAE Journal articles and ASHRAE research reports at : <http://technologyportal.ashrae.org>
- One new multidisciplinary Task Group: MTG.ACR (Air Change Rate)
- New restructured TC MOP (Manual of Procedures) will be issued after this Las Vegas meeting

LAS VEGAS MEETING:

- TC Program Subcommittee Chair Training on Tuesday 1/31 at 11:15 AM in FORUM 23 (Pool Level of the Caesars Palace Hotel)
- Twelve TCs, 19 PCs and 2 Ad Hoc committees are participating in the Remote Participation Meetings (RPM) test, which allows some TC members to participate in the TC meeting from a remote location electronically.

UPCOMING DEADLINES

- Seminar and Forum Proposals for Long Beach are due by Monday, February 6th, 2017.

RECENT ANNOUNCEMENTS:

- In 2015-2016 RAC started prioritizing for bid accepted research topics that support Goal # 3 from the Research Strategic Plan ("*To reduce significantly the energy consumption for HVAC&R, water heating and lighting in existing homes*")
- CEC's Standing Request for Future Society Meeting Program Track Suggestions: CEC seeks ideas for tracks for the Houston 2018 meeting and annual and winter conferences beyond as well as topics for specialty conferences from TC members
- CEC seek qualified volunteers for potential Technical Session Chairs and reviewers of session papers. There is a link on the webpage of the ASHRAE website where you can volunteer online to be a paper reviewer: <https://www.ashrae.org/membership--conferences/conferences/papers-and-programs#reviewers>

Upcoming meetings

- Long Beach – June 2017
- Chicago – January 2018

Liaison Comments:

- Standards Liason, Niels Bidstrup introduced himself to the committee and reminded committee of pending Standard 35 vote.
- Research Liason, Steve Kujak introduced himself and discussed bid funding & project monitoring.
- Handbook Liason, Don Fenton introduced himself and thanked the Handbook committee for their continued efforts as it is well in hand for vote in Long Beach.
- MTG (Multidisciplinary Task Group) Liason, Marc Scancarello introduced himself to the committee and discussed (3) research projects all dealing with flammability (1806, 7 & 8) to be completed by year's end for presentation in Chicago. The MTG currently consists of (14) TCs and several external (AHRI, AHAM ...)

Sub-Committee Reports

3) Program – Joe Nigro

- There were no TC sponsored programs for Las Vegas.
- The discussions with CEC and chairs of TC Section 3 to have a mini refrigeration track for Chicago were successful. The mini track will be coordinated with the AHR Expo with presentations at the Expo conference center and is open to all with an Expo registration. There will be 15-20 slots to be filled; old works are acceptable (ie seminar, papers, forums, workshops). The program chairs from TC Section 3 will meet to draft

an outline of the program to be submitted to CEC by Long Beach. This will be a good opportunity for new people to present.

- “Contamination Control and Lubricant Considerations During Retrofits to Low GWP Refrigerants” was proposed by Joe Nigro as a seminar for Long Beach & sponsored by TC 3.3; co-sponsored by 3.2 & 3.4. There are (4) speakers already; Ed Hessel to Chair. **MOTION #2:** for TC 3.3 to sponsor a seminar entitled: “Contamination Control and Lubricant Considerations During Retrofits to Low GWP Refrigerants” was made by Julie Majurin & Brad Boggess seconded. Motion passed 8-0-0.

4) Handbook – Chris Reeves (& Angel Mendez)

- Chapter 7 is on track (next publication is 2018) for vote in Long Beach. Chris appreciated the support of his group and thanked Elyse Sorenson, Juan Flores & Angel Mendez for their efforts. Angel Mendez will be taking over for Chris as Handbook Chair.

5) Standards – Rob Yost

- SPC 35-2014 – “Method of Testing Desiccants for Refrigerant Drying”- was last reaffirmed in Dallas (2013). Per staff review, changes are required for mandatory language update. **MOTION #3:** a vote to reaffirm with SRS to update references was made by Rob Yost & Danny Halel seconded. Motion passed 8-0-0
- SPC 63.1 – “Method of Testing Liquid Line Filter Driers” – is still under revision with mandatory word change requirements. Chris Reeves, sub-committee Chair stated that they will meet again in Long Beach and be ready by Chicago. Members: Jorge Cabrera & John Senediak.
- SPC 63.2 – “Method of Testing Liquid Line Filter Drier Filtration Capacity” – per subcommittee chair, Glen Steinkoenig, the standard was revised and is on track to finalize by Chicago.
- SPC 78 – “Method of Testing Flow Capacity of Suction Line Filters and Filter Driers” – per chair, Chris Reeves, the committee met and will complete update of mandatory language to be ready for finalization by Chicago.
- SPC 219 (has replaced SPC 63.3) -- “Method of Testing Acid Filters” -- John Senediak, chair met with members and will have a draft ready by Chicago.

6) Research – Glen Steinkoenig (& Tony Barthel)

- RP 1740: “Hydrogen Fluoride Capacity of Desiccants” – original contractor bid was rejected twice due to bid not meeting the required minimum score. A request for a new bid went back to RAC. The work statement was revised by Alan Cohen (St. Louis). Rob Yost will send to MORTS (Mike Vaughn) by deadline date. Additional bidders were added.
- WS 1790 - “Water Solubility and the Distribution of Water between Vapor and Liquid Phases of Low GWP Refrigerants ” – RTAR rejected initially; Brad Boggess (author) & Elyse Sorenson rewrote the work statement and it will be distributed for letter ballot by Joe Nigro.
- WS 1774 – “Effect of System Chemicals Towards the Breakdown of Lubricants and Lower GWP Refrigerants” Per Rosine Rohatgi of Spauchus, the work is on schedule. Five process chemicals from previous research work was chosen as baseline studies in R-134a and the HFO/HFC blend (equal parts of R-1234yf, R-1234zeE and R-32); results of the test are complete / repeatable -- 20 additional process chemicals will be tested with the HFO/HFC blend. TC 3.2 was sponsor with TC 3.3 & 3.4 as co-sponsor). Julie Majurin was author.
- New RTAR – “CO2 Systems” to address right level of water in system with actual testing due to potential expansion valve issues (hydrate at 11C, acid problems). Per Ivan Rydkin, reached out to TC 10.1, 6 & 7 to review / co-sponsor to work in collaboration to help draft RTAR. Rob Yost will also help in drafting.
- Tony Barthel will be taking over for Glen as Research Chair; Joe Nigro thanked Glen for all his efforts.

7) **Webmaster – Elyse Sorenson**

- Per Elyse, the Website is up to date. (<http://tc0303.ashraetcs.org>).

8) **Membership – Frank Nagy**

- **Voting Members for next society year (2018):**

- **Continuing VM:** Joe Nigro ('18), Rob Yost ('19), Chris Reeves ('20), Debra Kennoy ('20), Brad Boggess ('20), Ivan Rydkin ('20) & Alice Reimer-NQM.
- **New / Rolling-On VM:** Joe Karnaz, Elyse Sorenson, Roberto Urrego
- **Rolling-Off VM:** Danny Halel, Rosine Rohatgi, Julie Majurin, Ray Thomas, Alan Cohen

- **Committee positions for next society year (2018) were reviewed (through June 30, 2018):** Joe Nigro (Chair & Program), Rob Yost (Standards), Tony Barthel (Research), Elyse Sorenson (Webmaster), Chris Reeves (Vice Chair), Angel Mendez (Handbook) & Frank Nagy (Secretary & Membership).

9) **Old Business**

- None

10) **New Business**

- None

- 11) **Adjournment**-a motion to adjourn the meeting was made by Danny Halel & seconded by Rob Yost; meeting was adjourned at 5:00PM

Respectfully submitted,
Frank Nagy, Secretary TC 3.3