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**DRAFT**

**TC/TG/MTG/TRG MINUTES COVER SHEET**

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

TC/TG/MTG/TRG No. 3.3 DATE February 6, 2020

TC/TG/MTG/TRG TITLE Contaminant Control

DATE OF MEETING February 4, 2020 LOCATION Orlando, FL

MEMBERS PRESENT	Term	MEMBERS PRESENT	Term	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Chris Reeves(Chair)	2020	Casey Scruggs	2023	Angle Mendez (Vice-Chair)
Joe Karnaz	2021			Rob Yost (Standards)
Elyse Sorenson (Webmaster)	2021			Tony Barthel (Research)
Ivan Rydkin (Handbook)	2020	MEMBERS ABSENT		Marc Scancarello (MTG Liaison)
Brad Boggess	2020	Valerie Lisi	2022	Steve Kujak (Programs)
Jian Sun-Blanks	2021	Sonny Sunderesan	2022	
John Senediak	2022			
Roberto Urrego	2021			
Rosine Rohatgi	2022			

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

TAC Section Head: Barbara Minor TAC Chair: Jay Kohler	<a href="mailto:Barbara.h.minor@chemours.com">Barbara.h.minor@chemours.com</a>
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALL, etc.)	Steve Kujak - Research Vinod Gupta – Standard Frederick Betz – Handbook Marc Scancarello – MTG
Mike Vaughn, Mgr Research & Technical Services	MORTS@ashrae.net

**Note: These draft minutes have not been approved and not the official, approved record until approved by the TC.**

## Minutes – TC 3.3 Refrigerant Contaminant Control

### 1) Call to Order

Chris Reeves (Chair), called the meeting to order at 3:30 pm on Tuesday, February 4, 2020. The meeting was held at the Orlando Hilton Lake Nona. Guests were recognized and welcomed. After introduction of members and guests, a quorum was confirmed with 10 of 12 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 Orlando agenda, with minor change of Angel Mendez not being a voting member as listed on the agenda, was made by Brad Boggess and seconded by Ivan Rydkin. Motion passed 9-0-0 CNV

**MOTION #2:** to approve the Kansas City minutes as written was made by Casey Scruggs and seconded by Roberto Urrego. Motion passed 8-0-1 CNV (John Senediak abstained because he did not attend the KC meeting)

### 2) Report on TC 3.0 Chair Breakfast Meeting – Chris Reeves

The notes from the TC Chair meeting will be uploaded to the website; highlights from the meeting are as follows:

**Mission:** To serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration and their allied fields.

**Vision:** A healthy and sustainable built environment for all.

- **New Collaborative Meeting Space at ASHRAE Headquarters**
  - **TC Collaboration Area** (Hilton Orlando LL, Orange D)
  - Available for your use
  - Sunday, Monday, Tuesday 7:30 AM – 4:00 PM,
  - Wednesday 7:30 AM – 1:00 PM
  - You are encouraged to use it for various TC functions – meetings that did not make the official schedule, ad hoc meetings, any other TC related activity
  
- **MTGs that have been formed since Kansas City Meeting**
  - **MTG.CEA** (Controlled Environment Agriculture)
  - **MTG.RAC** (Refrigeration and Air Conditioning)

Both are meeting in Orlando

- **Seminar and Forum proposals for Austin are due by Monday, February 10, 2020.**

Please visit the following site to submit your proposal:  
For more information, go to: [www.ashrae.org/austin](http://www.ashrae.org/austin)

➤ **2020-2021 Hightower Award Nominations by Tuesday, September 1st**

TAC wishes to encourage TCs to make nominations for the 2020-2021 *George B. Hightower Technical Achievement Award*. Nominations are due to Section Heads by September 1, 2020 or sooner. The award recognizes outstanding technical leadership and contributions on a TC/TG/TRG during the past four years, excluding research and standards activities. Please go to the Technical Committee page of the ASHRAE website at the following link under the “Procedures, Forms...” heading:

➤ **Updated TAC Presentation Template Available for TC members to use with local Chapter**

TAC recently updated the standard presentation and presentation notes that TC members can use, without a lot of effort, to explain what TCs do for the Society and how that work benefits members in your local ASHRAE Chapter.

The new presentation and presentation notes files are posted now at the following link [www.ashrae.org/tcs](http://www.ashrae.org/tcs) under the heading *General TC Information* at the top of the page in case you prefer to direct others to these files posted online. The presentation material is now also available in both English and Spanish.

**Upcoming Meetings:**

- Austin, TX – June 27 – July 1, 2020
- Chicago, IL – January 23 – 27, 2021

**Liaison Comments:**

- Barbara Minor (TAC Section 3 Chair) commented on ASHRAE activities on the proposed merger of TC 3.3 and TC 3.2. These efforts will be outlined later in the meeting and Barbara said a vote will be needed by the TC voting members to approve the new Title, Scope and Chair/Vice-chair/Secretary management team. Barbara commented that Section 3 has been a good example of moving forward effectively with the merger and how Section 3 has handled combined efforts for research and programs. Barbara thanked the committee for the work they do.
- Steve Kujak (Section 3 Research Liaison) said that there are no RTARs for TC 3.3 at this meeting. RAC is balanced on funding and projects coming in, being review and accepted. When considering the bidder evaluation form the working committee does not have to stick to the boiler plate categories and ranking, it is recommended that they adjust to fit the research project. PMS training is available to understand how to work with the contractor. RAC is also looking at implementing a PES training session, more details to come. RAC is looking for volunteers to be liaisons, this is through a board approval process. Steve thanked all on the TC for their commitment and involvement in research.

**Sub-Committee Reports**

**3) Program – Steve Kujak**

- Several Section 3 committees made presentations here in Orlando.
- TC 3.3 and TC 3.8 sponsored AHR Expo Session 3 titled “Service Practices and Design Consideration for Contaminant and Leak Control” chaired by Angel Mendez. This was held at the Expo Center and was well attended. A comment was made that a better location within the center may have resulted in more contractors attending.
- TC 3.1, TC 3.2 and TC 3.4 seminars were all well attended
- It was decided that since the next refrigeration track is at the Chicago meeting that the TC will not make any presentations in Austin.

- Discussion on programs for Chicago 2021
  - TC 3.1, TC 3.2 and TC 3.4 have already discussed in their meetings about programs for Chicago:
    - TC 3.1 – Emerging Refrigerants
    - TC 3.2 – Summary of AHRI/DOE White Paper Investigation
    - TC 3.4 – Lubricant Properties
  - Program Ideas for TC 3.3 in Chicago
    - Refrigerant composition shifts during leaks – real system analysis and thermodynamic cycle evaluation
    - Filter/Drier requirements for various refrigerant types
    - Oil Separators
    - Contaminant effects on bearings
    - Outcome from AHRI/DOE white paper
  - These ideas will be reviewed to make decisions on a program for Chicago that will be decided in Austin
  - It was reminded to the committee that by Chicago TC 3.3 and TC 3.2 will be one group but can still have multiple program submissions

Future Ideas

- Odorant work
- Contaminant Control and Microchannel Applications

#### 4) Handbook – Ivan Rydkin

- Handbook Refrigeration Chapter 7 (Control of Moisture and Other Contaminants in Refrigerant Systems) was published in 2018 and next publication is 2022. Ivan Rydkin is the chair and looking for volunteers, Casey Scruggs stepped up to help. Ivan mentioned he only expects minor changes to the chapter and that representative from TC 3.8 are interested in reviewing Chapter 7.

#### 5) Standards – Rob Yost

- As voted on in Kansas City SPC 63.1 and SPC 35 merged and will be called SPC 35 “Method of Testing Desiccants for Refrigerant Drying”, Amber Saylor volunteered to chair but was not present at this meeting to provide an update. **Action: Angel Mendez was going to contact Amber to see if she is still going to be able to chair this standard.**
- SPC 63.2 – “Method of Testing Liquid Line Filter Drier Filtration Capacity” – this standard is in the 5-year cycle (published 2017) and will not require reauthorization until 2021. A vote will be needed either in Austin or Chicago on what action needs to be taken.
- SPC 78 – “Method of Testing Flow Capacity of Suction Line Filters and Filter Driers” – this standard is in the 5-year cycle (published 2017) and will not require reauthorization until 2021 A vote will be needed either in Austin or Chicago on what action needs to be taken.
- SPC 219 - “Method of Testing the Ability of Absorbents to Remove Organic Acids” – The sub-committee Chair is John Senediak. John met with Standards and said the draft is almost ready to send out for public review and targets Austin for draft completion.

## 6) Research – Tony Barthel

Tony summarized the Research Chair meeting on Monday morning; there was no ASHRAE service award recipient because there were no nominees. The Research Strategic Plan has been updated to reflect 2019-2024 and an email was sent out mid-January for comments. RAC plans to send out another email but the comment period will end soon.

- RP 1740: “Hydrogen Fluoride Capacity of Desiccants” – This was discussed in the Research Subcommittee meeting on Sunday evening; some discussion around approaching universities to do the work but decision was made to not move forward and make this recommendation to the TC. No need to vote on this and just let the project die and remove from future TC discussion. A comment was made that TC 3.2 research RTAR 1886 might eventually provide some information to help RP 1740 go forward.
- WS 1790 - “Water Solubility and the Distribution of Water between Vapor and Liquid Phases of Low GWP Refrigerants” – Brad Boggess is leading and stated that RAC said there were not enough bidders. The committee has decided to rewrite the WS with less refrigerants, remove blends, only look at single component options, and to remove the modelling requirement. **Action: The WS committee will rewrite and try to submit to the TC 3.3 Chair for voting member letter ballot.**
- RTAR 1856 – “Determine the Effect and Allowable Limits of Moisture and Contaminants in CO<sub>2</sub> Systems” – Ivan Rydkin is leading. According to RAC the RTAR was accepted with comments from the Fall meeting vote, but Ivan did not receive any communication but Tony Barthel did and will forward to Ivan. A work statement should be able to be started before Austin meeting, Ivan commented that the RTAR was very robust so WS shouldn’t be challenging.
- New Research Ideas –
  - Research around acid measurements, is total acid number (TAN) the correct approach? Can color be used as a quick look indication? Need joint discussion with TC 3.2 on this.

## 7) Webmaster – Elyse Sorenson

- Website is up-to-date; Orlando Minutes will be uploaded once received from the Chair.

## 8) Low GWP MTG – Marc Scancarello

- Marc provided the MTG agenda, sent to the MTG voting members by Mike Vaughn, to the Chair to be uploaded on the website.
- Marc outlined a few key areas regarding the research that is being done, standards and codes and programs that MTG Low GWP is sponsoring or cosponsoring at this meeting.
- The committee can go to the website to download the document for further information.

## 9) Membership – Chris Reeves

- Since the TCs will be merging the rollover roster will need to be delayed working out the new committee details, this will be done by ASHRAE.

## 10) Old Business

- None

## 11) New Business

- The committee recognized Sonny Sundaresan who passed away in September. Sonny was very active in TC 3.3 and other ASHRAE activities and will be missed.
- The Chair led a discussion on the new proposed merger of TC 3.3 and TC 3.2 outlining that in the TC 3.2 meeting a majority of the TC 3.3 members were present and took part in the adjustment of the scope agreeing to the changes, each TC 3.3 voting members received the updated document before this meeting. In addition to the Title and Scope, the management team of Joe Karnaz – Chair; Elyse Sorenson – Vice-chair and Steve Baker – Secretary is purposed for the TC vote. The time for the meeting will be proposed to be Tuesday 3:30-6pm (the current TC 3.3 slot), explanation for this reasoning was provided. After some other discussion the chair asked for a vote.

**MOTION #3:** A motion was made by Roberto Urrego to approve the proposed Title and Scope along with the officers. The motion was seconded by Brad Boggess and carried 10-0-0-CV (2 members absent).

- Barbara Minor will provide the results of the votes of both TCs to TAC and commented if this is approved will be implemented after the Austin meeting.

12) **Adjournment**-a motion was made to adjourn the meeting at 5:19PM.

Respectfully submitted,  
Joe Karnaz substituting for Frank Nagy, Secretary TC 3.3