



1791 Tullie Circle, N.E./Atlanta, GA 30329

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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. 3.2 DATE August 2, 2019

TC/TG/MTG/TRG TITLE System Chemistry

DATE OF MEETING June 24, 2019 LOCATION Kansas City, MO

MEMBERS PRESENT	YEAR APPTD ENDS	MEMBERS PRESENT	YEAR APPTD ENDS	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Ed Hessell - Chair	2020	Chris Reeves	2019	Casey Scruggs - Research
Joe Karnaz – Vice Chair	2020	Greg Smith	2019	
Rob Yost - Standards	2021			
Steven Baker - Secretary	2021			
Dave Vincent - Webmaster	2021	MEMBERS ABSENT		EX-OFFICIO MEMBERS ABSENT
Tom Leck – MTG Liaison	2019	John Senediak	2020	Brad Boggess- Programs
Elyse Sorenson	2022			
Ngoc Dung (Rosine) Rohatgi	2022			
Jian Sun-Blanks	2022			
Danny Halel	2021			
Sarah Kim	2021			

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

TAC Section Head: Barbara Minor	SH3@ashrae.net
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.)	Steve Kujak – Research Don Fenton - Standards
Mike Vaughn, Manager of 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 3.2 System Chemistry

Call to Order - Ed Hessel

Chair Ed Hessel, called the meeting to order at 2:15 pm on Monday June 24th, 2019 in Kansas City at the KCCC Room 2215A. Members and guests introduced themselves. Guests were welcomed and invited to participate with a special welcome to YEA members. A sign-up sheet was circulated. The Chair reviewed the ASHRAE Code of Ethics with members and visitors in attendance.

A quorum was established with 13 of 14 members present.

Approval of 2019 Summer Meeting Agenda and 2019 Atlanta Meeting Minutes - Ed Hessel/Joe Karnaz

MOTION #1 A motion was made by Dave Vincent and seconded by Danny Halel to approve the Agenda for this meeting as written.

MOTION PASSED 13-0-0-CV

MOTION #2 A motion was made by Rob Yost and seconded by Tom Leck to approve the Minutes from the meeting in Atlanta as written.

MOTION PASSED 13-0-0-CV

Report on TC 3.0 Chair Breakfast Meeting - Ed Hessel

- For Kansas City meeting, all TCs met at once and new format was surveyed and well received.
- CEC has a standing request for suggestions for program tracks for future conferences. Seeking volunteers to chair program sessions and review papers. Contact Tony Giametti if interested.
- Professional Development Committee (PDC) looking for input for new ideas for the ASHRAE Learning Institute. Contact Karen Murray if interested.
- TAC recognized and commended the efforts of TC 3.X groups to meet as one for Research and Programs meetings.
- Austin (Summer 2020) conference paper abstracts due August 12th with papers due December 2nd.

Liaison Reports:

Barbara Minor (TAC Section 3 Chair)

- Reviewed ASHRAE's response to feedback received regarding the reorganization suggestions made at the 2019 Winter meeting. Major reorganization announcements are not to be expected but rather for individual TCs to corroborate and lead efforts to improve overall effectiveness of the organization.
- At the TC Chair breakfast, a special mention was made for Section 3's efforts and success in proactively combining research and program subcommittee meetings.

Sub-Committee Reports

Programs - Joe Karnaz for Brad Boggess

Orlando

- Proposed for the Refrigeration track is a Seminar titled “Assessing System Chemistries in Next Gen Refrigeration Technologies” chaired by Brad Boggess planned. Presenters include Casey Scruggs (Metalloid) and Bill Morton (Circle Prosc0). Co-sponsor with TC 3.3.
- Co-sponsor with TC 3.4, a YEA-focused seminar of Refrigeration Concepts for YEA Members will be chair by Chris Seeton.

Discussion of Future Programs/Ideas

- Estimated Accelerated Chemical Stability in Equipment (J. Karnaz)
- Short History of Thermal, Chemical, and Material Compatibility Tests
- Accelerated Life Cycle Modeling (paper presented in Atlanta by Steve Kujak/Elyse Sorenson)

Handbook - Greg Smith

- Committee members: Greg Smith, Rosine Rohatgi, Brad Boggess, Ed Hessell. Chris Campo suggested to join committee.
- Next revision due 2022.

Standards - Rob Yost

- GPC 38P – Metal Pressure Vessel Method to Test Materials Used with Refrigeration Systems
 - Next revision due 2021.
- SPC 97-2007 – Sealed Glass Tube Method to Test for Chemical Stability of Materials for Use Within Refrigerant Systems
 - Chris Seeton – Chair. Final revision underway of the Appendix underway. Meeting is Tuesday morning to complete with a planned vote to follow shortly thereafter.
- No new standard ideas were discussed.

Research - Casey Scruggs

From TC Research Chair breakfast mtg

- Update Work Statement template on ASHRAE website; “plain English abstract” added.
- PMS Training webinar in Fall TBA – stayed tuned if interested.
- RAC developing training webinar for PES subcommittee members
- Research Advisory Panel formed to develop new ASHRAE Research Strategic Plan

RTAR Updates

- Proposed RTAR – “HFO Refrigerant Compatibility with Aged Lubricants and Contaminants”
MOTION #3 A motion was made by Rob Yost and seconded by Dave Vincent for Chair - Joe Karnaz to present an overview of the project. **MOTION PASSED 13-0-0-CV.** Agreed to increase funding request to \$125,000 and extend the project duration from 9 months to 12 months.

- Proposed RTAR – “Kinetic and Mechanistic Studies of the Breakdown of HFO Refrigerants”.
Chair – Elyse Sorenson.
MOTION #4 A motion was made by Joe Karnaz and seconded by Tom Leck for Elyse Sorenson to present an overview of the project. **MOTION PASSED 12-0-1-CV.** Continuation of prior work on HFO stability with focus on liberation of fluoride ion. Proposed White Paper study with lab testing to verify White Paper findings.

New Research Project Proposals

- “Correlating Interactive Behavior of Process Chemicals on System Component Performance” Chair – Brad Boggess.
 - White Paper study of manufacturing chemical compatibility in HVACR equipment with LGWP refrigerant and lubricants. Review of current literature to understand implications for current systems, perform gap analysis, and propose research to address findings.
 - In combined Research Meeting of TC 3s, it was reported a MCLR AHRTI study is planned that may cover this project’s topic and this project was paused pending the AHRTI study.

Webmaster – Dave Vincent

RTARs voted on by committee to be posted on website.

Membership – Ed Hessell

Roster Changes Effective June 30, 2019

- Voting Members Rolling Off
 - Greg Smith
 - Tom Leck (**also rolling off as LGWP Refrigerants MTG TC Liaison**)
 - Chris Reeves
- New Voting Members
 - Julie Majurin – CPI Fluid Engineering
 - Casey Scruggs – Metalloid Corporation
 - Knut Petry – Carrier

Voting Members

Ed Hessell	John Senediak
Joe Karnaz	Elyse Sorenson
Rob Yost	Jian Sun-Blanks
Steven Baker	Rosine Rohatgi
Dave Vincent	Julie Majurin
Danny Halel	Casey Scruggs
Sarah Kim	Knut Petry

MTG Low GWP Refrigerants – Tom Leck

Update

MTG formed to identify and develop solutions to remove roadblocks impeding the commercialization of LWGP refrigerants in the US. Representation from multiple Technical and Administration Committees. Communication with Building Code officials and Fire Marshals to implement changes into local, state, and national codes. Process for updating codes has been slow but is progressing.

3 major projects completed and being presented to ASHRAE.

Technical session #44 at 9:40am, June 25th, 2019.

Tom Leck's term as MTG Liaison for TC3.2 is ending as of June 30th, 2019. Ed Hessel thanked Tom for his service and received a round of applause from the meeting attendees.

Ed Hessel requested all those interested in being the primary or alternate MTG Liaison for TC 3.2 to send him an email.

Old Business – Ed Hessel

No old business was brought before the committee.

New Business – Ed Hessel

- ASHRAE Request for TC 3.2 Participation in new MTG
MTG will coordinate and oversee the creation of an ASHRAE/UNEP Guide for Refrigeration and Air Conditioning (RAC) Plant Assessments. Includes large industrial refrigeration plants, cold chain, commissioning and preventative maintenance, training materials for developing countries.
Many TCs approached to participate – 2.8, 3.2, 3.6, 3.8, 6.1, 7.3, 7.7, 8.6, 8.7, 8.8, 9.1, 9.2, and 10.3.
MOTION #5 - Motion to participate in new MTG made by Tom Leck and second by Danny Halel. **MOTION PASSED 12-0-1 CV.**
- Ideas for Reorganization of TC 3 groups
An Ad-HOC group of TC 3.2 and TC 3.3 chairs and co-chairs formed to consider advantages and disadvantages of combining TC 3.2 and 3.3. Ideas include on-line meetings, meet as one group (combined), co-sponsor programs and research, review attendance at meetings for how many people attend both meetings or one.

Next Meeting

2020 ASHRAE Winter Meeting Orlando, FL February 1-5, 2020.

Adjournment – Ed Hessel

The meeting was closed at 4:15 pm through a motion by Danny Halel to adjourn.

Respectfully submitted,

Steve Baker – Secretary