

1791 Tullie Circle, N.E./Atlanta, GA 30329
404-636-8400

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. 8.2 DATE 01-06-2020

TC/TG/MTG/TRG TITLE Centrifugal Machines

DATE OF MEETING 1/15/2020 LOCATION Orlando

VOTING MEMBERS PRESENT	VOTING MEMBERS ABSENT	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Ray Good	Megan Gibbs	Matt Cambio
Lindsey King		Chris Lesnar
Dwayne Johnson		Brian McClintock
Mark Rogan		Mark Adams
Justin Prosser		Drew Turner
Michael Perevozchikov		John Vucci
Trent Hunt		Daryl Showalter
Scott MacBain		Kezhen Shen
Jeb Schreiber		Nicholas Zupp
		Dan Kemper
		Turner Thorton
		Jin Yan
		Phil Johnson
		Heinz Juergensen
		Mihir Nandkeolyer
		Antoine Bou Abboud
		Orkan Kurtulus

Date/Time: **Monday, February 3rd, 2020 at 2:15 PM – 4:15 PM**
Location: Hilton, Lake Nona

MINUTES

- 1) Call to Order at 2:16 PM by Chair, Ray Good
- 2) Introduction of Attendees, Liaisons, Officers and Guests

9 of 10 voting members in attendance, Quorum achieved

3) ASHRAE Code of Ethics Commitment

In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests. (See full Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>.)

- 4) Review of the Agenda – Chair
- 5) Reviewed TC 8.2 Mission Statement & Scope – Clarification of centrifugal machines vs chillers and committee coverage
- 6) Kevin Mercer – Section 8 leader.
 - a) TAC – Conduit through ASHRAE Leadership
 - i) TC re-validation based on participation or potential to merge with others
 - ii) Any roster updates take effect July 1st
 - b) Roster updates as soon as possible. Activity form due Wednesday.
 - c) Two new TCs: Indoor agriculture and Refrigeration and air-conditioning – Teach 3rd world countries how to do air-conditioning.
 - d) TC MOP – Manual of Procedures; how we conduct ourselves.
 - e) Committee leadership to familiarize ourselves with MOP. TAC & track chairs proposal review for summer meeting.
 - f) Re-org proposal –
 - i) 8.10 & 8.12 dehumidification merge vote today
 - ii) No discussion on merging 8.1 & 8.2
 - iii) Section 2, 9 & 6 also have merge proposals
 - g) Feedback on subcommittee meetings online ahead of formal meeting? No feedback.
 - h) Proposal to merge 8.1 & 8.2 subcommittee meetings –
 - i) Eliminate extra meeting room
 - ii) Agreement that virtual meeting worked and makes sense for future
- 7) Reviewed/Approved Kansas City Minutes (Summer meeting June 2019)
 - a) One change to MTG with J. Vucci rolling off
 - b) Scott moved, Michael seconded. All in favor (8-0-0), Minutes approved.
- 8) Reports:
 - a) Program M. Rogan
 - i) Sound seminar with magnetic bearing compressors – Not submitted
 - (1) Need a chair. Trent Hunt volunteered to chair
 - (2) Not sure when it will be in the program but can request to not slot
 - (3) Mark Rogan to check with Changiz on speaking
 - (4) Mark Adams volunteered JCI for co-sponsorship & speaker (Pat Marks)
 - (5) Trent mention Brandon from BRD for potential speaker

- ii) Low-GWP refrigerants & their applications panel discussion
 - (1) Make sure it gets submitted for Austin
 - (2) Need another speaker
 - (3) Proposal for Phil to speak - Agreed.
- iii) Future topics – Better for them to fit in the listed tracks
 - (1) Interest in high efficiency pumping
 - (2) Matt Cambio volunteering to find a speaker for CFD. Also volunteered to chair.
 - (3) Chair responsibility to coordinate speakers and chair session. Reduced registration fee.

b) Handbook

S. MacBain

- i) Still responsible for the 2 chapters (centrifugal compressors & liquid chilling)
 - (1) No anticipated remaining issues
 - (2) Planning to start now for 2024.

c) Standards

P. Johnson

- i) Copy of it on committee basecamp site
- ii) SPC 184 Update – Method of test for performance of liquid chilling systems
 - (1) Disbanded last year - Our job to determine when to re-form
 - (2) Addendum a revision did not re-set publication clock – Maintenance standard
 - (3) Can re-affirm, revise or withdraw –
 - (a) Re-affirm with no changes (except addendum a) - Preliminary recommendation. Filled out form.
 - (i) Motion made to re-affirm
 - (ii) Voted to re-affirm – 8/0/0
 - (b) Revise – Initiate process to form new committee
 - (i) Call for members
 - (ii) Committee re-forms
 - (iii) Work plan & execute by 12/21. Public review prior.
 - (iv) Question to Mark on JCI conducting field testing for guidance? Still do.
 - (c) Withdraw – Obsolete.
- iii) SPC 30 Update
 - (1) Conversion to SSPC not yet complete
 - (a) In process of re-confirming
 - (b) SPC members need to re-apply for SSPC
 - (c) Fully electronic application now.
 - (2) New version out for public review and comment
 - (3) Proposal to add definition of ‘free cooling’
 - (4) Additions
 - (a) 4-pipe chiller
 - (b) Adiabatic chiller
 - (5) Operation stability and tolerances – Modular
- iv) Standard 225p – M. Cambio
 - (1) Methods for performance testing centrifugal compressors & refrigerants
 - (2) Standard 23.1 starting point,
 - (a) Out for comment through 3/2
 - (b) Call to members to review
 - (c) 23.1 standard for positive displacement
 - (d) Super-critical method for test added
 - (3) Nick Zupp added to committee
- v) Guideline 22 update – Instrumentation for chiller testing

- (1) Another TC responsible
 - (2) 2012 edition published
 - (3) GPC 22 drafting update
 - vi) Monitoring – 90.1
 - (1) 2019 edition published last year
 - (2) Question on heat pump requirement addition – Yes, but not reviewed here
 - (3) Large central plants & high delta T – Change to default discussed
 - vii) Preview proposal on motor insulation – Not the right TC
 - viii) AHRI Standard 550/590 – New version in-process of reviewing/approving
 - ix) AHRI Standard 1520p –
 - (1) Met yesterday for final standard ‘scrubbing’ – Expectation for completion in July
 - (2) Working on software tool to incorporate OEM data for comparison tool
 - (3) Discussion on tool platform, refrigerant properties
- d) Research M. Adams
- i) Two RTARs to approve at chairs breakfast / zero work statements
 - ii) Voting Wednesday for 11 project approvals – Ours was not one of them
 - iii) 39k entries submitted for data tracking
 - iv) Project 1677 –
 - (1) Waterside fouling on internally enhanced tubes
 - (2) Testing complete
 - v) Project 1716 –
 - (1) Oil concentration of field-installed liquid chillers
 - (2) Not one of the projects included in vote
 - vi) Project 1793 – Development of Method of Test for motor component thermal conductivity
 - vii) Research Projects’ status and additional details are in the research subcommittee attachment
 - (1) Always looking for new research ideas - Pipeline dry
 - (2) please keep thinking.
- e) MTG Low GWP Liaison P. Johnson
- i) Research on flammability
 - (1) Primary activities on initiating, monitoring & summarizing research efforts
 - (2) Lots of activities but starting to decrease
 - ii) Proposed seminar topic fits in this
 - iii) Codes & Standards – Activities going on to help drive transition
 - iv) Research report available on odors added to flammable refrigerants
 - v) Update to risk assessments done a few years back – Updates on event severity.
 - vi) Task 1 project focused on reach-in coolers but potential for use of process for others
 - vii) Project update tomorrow, to also discuss
 - viii) Largest ASHRAE spend project - \$800k funding. Lots of people watching
 - ix) 3 current TC8.2 committee participants - Laurent Abbas formerly participating but removed with new role
 - x) Sunday/Wednesday meetings plus subcommittees/online
 - xi) Phil plans to continue to lead – R Good & Mark A volunteered to be alt #1 & 2, respectively
- f) RP-1855 – Related project to research flammable refrigerant event biproducts

g) Membership

R. Good

i) Leadership positions reviewed

- (1) Changes at the last meeting – Voting members guidance to have 3 one-year terms for any one member.
- (2) Dwayne rolling off this year – Next step to replace
- (3) Mark Adams requesting to be replaced after Austin
- (4) Daryl Showalter volunteered to be Research subcommittee chair
- (5) Desire to have outside of manufacturer future membership – More balance

h) Web Master

D. Johnson

- i) Need Atlanta approved minutes
- ii) Dwayne willing to continue

i) Honors and Awards

F. Betz

- i) Nothing to report
- ii) Fred not in attendance

j) Section 8 Chair's Breakfast

Lindsey

k) Basecamp

Lindsey

- i) Come to her to be added
- ii) Send link to current members who currently have access, before each meeting

9) Old Business - None

10) New Business

- 1) MTG RAC – Bill McQuade put together (chair)
 - a) ASHRAE/UNEP partnership to train in 3rd world countries on AC equipment
 - b) Meeting tomorrow in Lower level Orange Left room (1-3pm)
- 2) Model building codes – Uniform Mechanical Code or International Mechanical Codes, both have provisions for A2L in mechanical rooms.

11) For the Good and Wellbeing

12) Adjourn



