

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING
ENGINEERS, INC.
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.: 5.5 DATE: 01/31/2017

TC/TG/MTG/TRG TITLE: Air to Air Energy Recovery

DATE OF MEETING: 01/31/2017 LOCATION: Las Vegas, NV

MEMBERS	POSITION	STATUS	YEAR APPTD	PRESENT
Paul L Pieper, Eng, PE	Chair	Voting	2014	X
Matthew Friedlander	Vice Chair	Voting	2013	X
Tom Rice	Secretary	Voting	2014	X
Dr. Gursaran D Mathur, PE	Handbook Co-Chair	Voting	2014	X
Dr. Prakash R Dhamshala	Handbook Co-Chair	Non Voting	2014	X
Mr Ronnie R Moffitt, PE	Program Chair	Non Voting	2013	X
John T Dieckmann	Research Chair	Non Voting	2014	X
Xuan Le	Webmaster	Voting	2015	X
Marcus D'Arcy		Voting	2012	X
Peter K Grinbergs		Voting	2014	X
James Piscopo		Voting	2016	X

DISTRIBUTION

<i>All Members of TC/TG/MTG/TRG plus the following:</i>	
TAC Section Head:	Mr Kenneth C Peet kcpeet1@gmail.com
TAC Chair:	Dr Thomas M Lawrence lawrence@engr.uga.edu
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters:	Cameron R Labunski PE, cameronl@tgce.com James A Arnold, PE, jim@haslettmechanical.com Patrick C Marks, PE patrick.c.marks@jci.com David A John, PE, davidjohntarpon@gmail.com Dr Arsen K Melikov, PhD, akm@byg.dtu.dk Mr Michael R Vaughn MORTS@ashrae.net
Manager Of Standards	Stephanie Reiniche
Manager Of Research & Technical Services	Mike Vaughn
TC 5.5 Membership	TC0505@ashrae.net

Paul Pieper called the meeting to order at 3:37 pm (pacific time)

- Paul Pieper read TC 5.5 purpose statement
- Paul Pieper read ASHRAE Code of Ethics
- Introductions
- (3) New members
- (11) YEA in attendance
- 8/8 voting members in attendance

Approve St. Louis minutes amending start/finish time

Peter moves

GD seconds

Votes 7/0/0 (Chair not voting)

TAC:

Interested in more sub-committee support especially for time between winter/summer meetings
How many are not signed up to serve was requested; only a handful had not signed up.

This is also to help with seminars. Brief discussion followed on roster and wanting to increase the number of voting members.

Paul – Chair report

Paul will attach copy of Chair report along with the minutes.

One new MTG ACR (Air Change Rate) has been developed

Remote attendance of TCs is being tested to increase participation of those who cannot attend.

Monday Feb 6 seminars for Long Beach are due

GD/Prakash – Handbook Report

- Chapter is completed
- Paul Pieper to send chapter to the TC for review
- Start reviewing for Las Vegas
- Discussion to have fundamental chapter added and possibly application
 - o Send communication to GD and Prakash on suggestions of updates
- Prakash is not on the handbook committee
- Research and technology is very competitive globally and is impacting our quality of chapter update and need to quickly move to be a leader in that area

Ronnie – Programs

- Las Vegas submission did not occur for scaleability due to not being able to compile
- Long Beach – due to the short time span, looking for someone to chair a seminar.
 - o Residential Energy Recovery
 - Application – Manalee Nabar
 - Modeling – Peter Grinbergs
 - Equipment – Adam Fecteau
- Chicago
 - o DOAS design guide seminar
 - o Large scale applications
 - o Frost Control (Paper?) – Paul Pieper

John – Research

- DOAS design guide
 - o Layout and publication is underway.
 - o Draft of new handbook chapter is underway (TC 8.10)
 - o Review of final design guide and handbook chapter will be started once each of the above has finished.
- RTAR 1799
 - o Scalability of test results study
 - o Conditionally approved by RAC
 - o John is finishing before May so that RAC can review again for Long Beach
 - o Proposal stage evaluation support requested. Marcus D'Arcy and Matthew Friedlander volunteered to help John.
 - o Looking for co-funding maybe from AHRI or individual entities who has interest.
- RTAR Researching into energy modeling (what is out there) for air to air.
 - o Improved submodels of energy plus
- WS 1780 – Roland is being finalized
 - o TC 9.10 Regarding transfer of building contaminant indicators
 - o People who can bid on work statement has been requested.
 - o 3 members of the TC 5.5 to be involved – Tom Rice, Adam Fecteau and Matthew Friedlander
- MTG ASEC – Avoided sources energy consumption due to waste
 - o If anything is heard, keep group posted
- There is available research by ASHRAE available as there have not been many RTARs requested

Standards:

- SPC 84
 - o TC 5.5 requested to reopen SPC
 1. Adjust normative sections to mandatory language
 2. Introduce methods of test for fixed mass regenerators
 - o Formal kickoff STL 2016 summer meeting
 - o Draft Completion 2017
 - o Draft review Winter Meeting 2018
 - o Public review 2018
 - o Publish Winter Meeting 2019
 - o Work structure:
 - Ranked adjustments in standard (no real high priority)
 - Frost – quantify performance
 - Transient testing – non-steady state (can we quantify from short test)
 - Contaminant transfer via other than mechanical
 - Condensation
 - Air to liquid to Air systems (should that be added to the standard)
 - Consideration of future trends (testing only components of exchangers in lieu of full exchanger)

Website

- Xuan Le rolling off, James Scudamore will pick up
- Information in the website available to share what we are a part of (research, handbook, etc)

Membership

- Provisional Corresponding move to corresponding in Summer
- 8 voting members currently
- Paul Pieper to roll off as chair and voting member
- GD rolling off in June and Prakash to roll on
- John Deickman rolling on
- Ronnie Moffit rolling on
- Drake Erbe rolling on
- This will raise voting members to 11
- Adam taking secretary position in June

Liason Reports

ASHRAE Learning institute

- Near 50 people attended
- Both short courses schedule for spring online
- Paul to provide detail for review and updates
- Lots of interest in the topic

90.1

- Addendum H 6.5.6.1
 - o change energy recovery ratio must be met for both heating and cooling design setpoint
 - o (going out for public review)
- Addendum J
 - o relates to standing exemption that DCV wasn't required.
 - o Addendum will only apply if energy recovery is necessary.
 - o (going out for public review)
- Addendum DN
 - o if energy recovery is used at the cooling coil (ie run around) to increase dehum of the coil this will modify exemption of coils in series
 - o Need a definition of series heat exchanger (look in handbook for definition)
 - o ERV working group to approach mechanical subcommittee to correct addendum DN so the proposer can feel comfortable that their intent is followed. Mech subcommittee then will bring it to the floor of the full SPC

62.1

- 2016 User Manual is now published and available
- Spending a lot of time working on IAQP (had a forum)
 - o Concerned about certain electronic type filter manufacturers following IAQP process, lowering ventilation but no adequate test to verify that the filter manufacturers actually perform to that level
 - o Building contaminants are now being talked as "indicators" and they are working toward developing a list to support VRP/IAQP methodology.
 - o Right now Formaldehyde and Toluene have made the list
- Again, ASHRAE 170 being discussed that there needs to be a coordinated effort to have matched figures (or correlated) to ASHRAE 62.1
- Hoy Bohannon –
 - o Exemptions of class of air that have to do with energy recovery devices
 - Recirculation of class 2 and class 3 air not to exclude energy recovery
 - Gets abused, as it has to do with leakage

- Encourage TC 5.5 to come up with specific % recirculation
- Change proposal request to 62.1 (having language from TC 5.5)
- Want to tighten up loopholes
- Want to have 2019 standard included
- Also need to account for the fact that any EATR is not considered ventilation and therefore must be considered in the language.
- Items are being looked at “As low as reasonably achievable”
- Paul Pieper states that this is a health % that is responsible for SPC 62.1
- Any comments need to be sent by June 2017

Paul moves to adjourn:

GD so moves

Matthew seconds

Adjourn at 6:06 pm (Pacific time)