****

# 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 No.5.5 DATE 2018-03-07

TC Air-to-Air Energy Recovery

DATE OF MEETING 2018-03-06 LOCATION via Web-meeting

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| VOTING MEMBERS PRESENT | YEAR APPTD | NON-VOTING MEMBERS PRESENT | YEAR APPTD | NON-VOTING MEMBERS PRESENT | YEAR APPTD |
| Peter Grinbergs | 2014 | Adam Fecteau | 2017 | Mo Afshin | 2017 |
| Marcus D’Arcy | 2016 | Ronnie Moffitt | 2015 | Kristin Sullivan | 2016 |
| Drake Erbe | 2017 | John Dieckmann | 2014 | Artur Gurdyumov | 2017 |
| James Piscopo | 2016 | G.D. Mathur | 2017 |  |  |
| Matthew Friedlander | 2017 | Xuan Le | 2017 |  |  |
| VOTING MEMBERS ABSENT | YEAR APPTD | EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE |
| Tom Rice | 2017 | Nick Agopian, guest |
| **DISTRIBUTION: *All Members of TC/TG/MTG/TRG plus the following:*** |
| TAC Section Head: | SH5@ashrae.net  |
| All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.) | RACchair@ashrae.net tc0505@ashrae.net, tc0505.SEC@ashrae.net, tc0505.HBK@ashrae.net, tc0505.PRO@ashrae.net, tc0505.RES@ashrae.net, tc0505.STD@ashrae.net, tc0505.WEB@ashrae.nettc0910@ashrae.net, tc0910.SEC@ashrae.net, tc0910.RES@ashrae.net tc0908@ashrae.net, tc0908.SEC@ashrae.net, tc0908.RES@ashrae.nettc0203@ashrae.net, tc0203.SEC@ashrae.net, tc0203.RES@ashrae.netTechCchair@ashrae.net  |
| Mike Vaughn,Manager Of Research & Technical Services | MORTS@ashrae.net  |

**ASHRAE TC 5.5 Air-to-Air Energy Recovery**

**Webmeeting**

4:00-5:00 pm, March 5, 2018

**Agenda**

1. Call to Order / Welcome
	1. The meeting was called to order at 16:04 ET
2. Introduction
	1. Each participant introduced themselves
3. Roll Call of Voting Members, determination of quorum
	1. present:

|  |  |
| --- | --- |
| **Matthew Friedlander, Chair, Voting Member** | **James Piscopo, Voting Member** |
| Adam Fecteau, Secretary, Non-Voting Member | Xuan Le, Non-Voting member |
| Ronnie Moffit, Program Chair, Non-Voting Member | Wongyu Choi, Non-voting Member |
| John Dieckmann, Research Chair, Non-voting member | Mo Afshin, non-voting member |
| GD Mathur, Handbook Co-chair, Non-voting Member | Kristin Sullivan, Non-voting member |
| **Peter Grinbergs, Member Non quorum, voting member** | Artur Gurdyumov, Non-voting member |
| **Marcus D’Arcy, Voting member** | Birol Yavuz, Non-voting member |
| **Drake Erbe, Voting Member** | Nick Agopian, guest |
| **James Piscopo, Voting Member** |  |

* 1. Quorum was achieved with 5 out of 6 voting members present/
1. Agenda Review
	1. The agenda for the meeting was approved.
2. Research Project 1780 “Test method to evaluate cross-contamination of gaseous contaminant within total energy recovery wheels” (for laboratory ventilation).
	1. Discussion
		1. The participants shared their concerns regarding the work statement WS-1780 as revised 2018-02-15 and distributed to members and co-sponsoring TCs for approval.
	2. ACTION: vote on TC5.5 co-sponsorship of the Work Statement as written
		1. MOTION 1. Peter Grinbergs moved that TC55 to cosponsor WS-1780, seconded by Marcus D’Arcy.
			1. Vote: No=3, Yes=1, Abstain=0, Chair Not Voting
			2. Motion failed
			3. Negative voters were requested to submit their reasons in writing to the chair no later than March 6th.
		2. Chair will send TC55 amended official position regarding Class IV air with Air-to-Air energy recovery with the result of the vote to Mr. Charneux.
3. Other Business

There was no other business

1. Next Meeting

Next face-to-face meetings will be at the Annual Conference in Houston TX held June 23-27, 2018

1. Meeting was adjourned at 17:07 ET

**ATTACHED EXHIBITS:**

1. Rationales provided by negative voters
2. Formal position adopted by TC5.5 2012-01-24 with respect to use of ERV with Class 4 air
3. Minutes of 2018-02-15 Webmeeting of TCs Co-sponsoring RP 1780
4. Work Statement 1780 as edited in 2018-02-15 webmeeting of sponsoring TCs (separate document)

Matthew Friedlander, Chair TC 5.5
2018-02-19

**EXHIBIT 1 RATIONALES PROVIDE BY NEGATIVE VOTERS**

Marcus D’Arcy: “For me it was a marginal vote between yes and no. In principle, I think it is a good thing to research and apply science to decisions regarding the application of technology. Therefore, in principle, a successful research project could help illuminate the question of whether a wheel can be used safely in a lab. For this reason I was inclined to vote yes. However, it focuses on one component of the system and can create a false security. The use of wheels in Class 4 laboratory environments involves more components than just the wheel. The surrounding structure is a component of the system, as are any fans and controls. The airstreams must be proximate in this type of system and, whether the wheel itself transfers contaminants or not, mechanical, electrical or controls failures in the system could lead to contamination. A test method that demonstrates any one wheel does not transfer contaminants under a discreet set of conditions, and in a test setup, can provide false security that the system will not lead to contamination in the field.”

Drake Erbe: “The WS has been problematic for me from the beginning and I have indicated in multiple meetings that is violates the TC 5.5 formal position which was declared and voted on 7-0-0 in the recent past.  I also currently chair the AHRI section for Energy Recovery which also has supported the TC 5.5 position and currently continues to do so.  In the most recent meeting on this, it was pointed out that if TC 5.5 is seen to support this effort it (and the industry) will be, by association, assumed to agree with the possible applications indicated in the WS.  This is categorically untrue and our industry is not well served if we imply use of products and systems that could be unsafe if misused or left to jurisdictional opinion.  I believe any other position is irresponsible and ASHRAE should not support it.”

Peter Grinbergs: “I don’t believe the technology is suitable for lab ventilation applications where zero cross-contamination needs to be maintained over the life of the product. Laboratory fume hood use will vary depending on the labs particular function at any point in time, so we are not dealing with a constant acceptable cross-contamination rate.”

**EXHIBIT 2 FORMAL POSITION OF TC5.5 WITH RESPECT TO ERV USE IN CLASS 4 AIRSTREAMS, EXCERPTED FROM MINUTES OF ITS JANUARY 24, 2012 MEETING**

“This motion is to put TC5.5 on record in regard to the usage of particular air-to-air energy recovery device technologies in airstreams in which a life safety issue may exist, and for Class 4 airstreams. In such applications where toxic, odorous, infectious or otherwise hazardous gases, vapors or airborne particles are present, a technology generally accepted as safe should be used: specifically runaround loops\* in which the supply and exhaust streams are not proximate and for which there is no possibility of transfer from the exhaust to the supply side. This includes hazards to animals as well as humans. It is not acceptable to use technologies in which there may be leakage or in which active methods are to be used to reduce leakage such as pressure ratios or selective absorption. It must be considered what would happen when the device shuts down and resumes operation. There is not currently a consensus test procedure to identify the levels of all contaminants possibly present which characterizes the transfer for each under all conditions that may occur during the lifecycle operation of the unit, including the effects of humidity, interactions among contaminants, the presence of dirt coatings, or the lack of proper maintenance. The Chair is directed to communicate this Position and the vote to relevant ASHRAE TCs and Standards committees; 8-0-0 CV.”

\*Note: it was pointed out and accepted by the attendees of the 2018-03-05 TC5.5 webmeeting that the term “runaround loops” should be modified to include thermosiphon heat pipes.

**EXHIBIT 3 MINUTES OF 2018-02-15 WEBMEETING OF TCS CO-SPONSORING RP 1780**

****