

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS,  
INC.**

**1791 Tullie Circle, N.E./Atlanta, GA 30329  
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**TC/TG/TRG MINUTES COVER SHEET**

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

TC/TG/TRG NO 5.5

D A T E June 26, 2012

TC/TG/TRG TITLE A i r t o A i r E n e r g y R e c o v e r y

DATE OF MEETING June 26, 2012

LOCATION San Antonio, TX

MEMBERS PRESENT	Chapter Position	YEAR APPT D	MEMBERS ABSENT	Chapter Position	YEAR APPTD
Dr. Gregory M Dobbs	Chair/ SSPC 90.1 Liaison/Voting Member	2011	Prakash Damshala	Handbook Subc. Chm./ Voting	2010
Ronnie R Moffitt	Vice Chair/ Voting Member	2011	Michael M Ohadi, PhD	Member Non-Quorum	2010
Bob Besant	Research Subc. Chm./ Voting Member	2009	Paul Pieper	Secretary / NV Member	2011
Matthew Friedlander	Standards Subc. Chm/ Voting Member	2010	Bede Wellford	SSPC 62.1 Liaison /	2003
Drake Erbe	Non-Voting Member		Klas C Haglid	TC 7.5 Liaison / Voting	2011
G.D. Mathur	Voting Member	2011	Bert Phillips	Membership Chm./ Non-	2007
John Diekmann	Voting Member	2010			
Charissa Garcia	TC Webmaster, Program Subc / Non-Voting	2011			
Carol Marriott	SSPC 189.1 Liaison / Non-Voting	2009			
See Attachment for Additional Attendees					

**DISTRIBUTION**

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

TAC Section Head: <b>Giustino Mastro</b>	<a href="mailto:SH5@ashrae.net">SH5@ashrae.net</a>
TAC Chair: <b>Donald Brundage</b>	<a href="mailto:TACchair@ashrae.net">TACchair@ashrae.net</a>
All Committee Liaisons As Shown On TC/TG/TRG Rosters:	Name Position Sheinman, Harris Handbook Liaison Mendez, Florentino Professional Development

	Comm (EDUC) Castellan, Danny Research Liaison Mumma, Stanley Special Pubs Liaison Subherwal, Bodh Standard Liaison Vaughn, Michael Staff Liaison
TC 5.5 Membership	<a href="mailto:TC0505@ashrae.net">TC0505@ashrae.net</a>

### General

1. Call to Order /Welcome  
Call to Order 3:33pm
2. Introduction & Sign up (Current e-Mail & updates)  
See Attendee list attached.
3. Roll Call  
See attendee list, meeting start with 4, 5 needed for quorum.
4. Chicago Minutes Approval post poned until quorum
5. Chair's Report (Greg Dobbs) - News and announcements from Chair's Breakfast Meeting  
See Summary,  
ASHRAEwiki.org Wiki definitions are pulled from current standards.

### Subcommittee Reports

1. Handbook (Prakash Damshala / GD Mathur)
2. Program (Charissa Garcia)  
August 13<sup>th</sup> update.  
Standards for critical applications was not approved for San Antonio.  
Paul was arranging this, Check  
Denver Deadline for Sept 24<sup>th</sup> for conference papers.  
  
"Best way to control ERV systems" an idea  
Idea to do conference paper on ERV modeling analyzing how well they work. This is the topic of the Forum in San Antonio. May not have to be a conference paper, could be seminar. See who these latest articles where by and what issues by forum, to get ideas for Denver.

#### Minutes Approval

\*\*\* Quorum was met partway into the meeting, Chicago meeting minutes were discussed and approved.  
Chicago Minutes Approval 5-0

3. Research (Bob Besant)

There was an interest for showing energy savings using energy recovery using building modeling. It was commented by Bob that a dozen or more papers exist that somewhat duplicates RTAR building operations/control and savings related to Air-to-Air Energy Recovery. The group consensus was this would be good to review this in a seminar. Bob was going to put a list together to send to Charissa for Seminar possibilities. Most of these are simulations vs real world. Simulation versus real world as applied is still lacking and looking if there is any more interest in this.

Other topics came from our standard 84 committee.

#### 4. Standard 84 (Matt Friedlander)

MOT 84 went for public review in April/May Kirk Mescher had one comment to add that the devices be tested for cross contaminations similar to EATR is measured. The committee spent several hours discussing the topic including commenter input. The base of the reason not including in standard 84 was that there is not established methods to test cross contaminates and they could not be tested like bulk air transfer using SF6. A letter was crafted responding to this. Scheduled for meeting in Dallas to wrap up if needed. The TC is to decide whether or not to disband after publication or not until next meeting. Work could continue under the standards subcommittee.

Part of the meeting also identified areas of research that are needed to develop this or other MOTs similar to 84. For instance it was noted in the SPC meeting that there wasn't any peer reviewed work to help define methods needed to measure cross transfers of gaseous contaminates. Chair suggested that Bob B (research subcommittee chair) contact the Gaseous filtration TC 2.3 on a joint interest on this. The list of items that the SPC 84 came up with included this topic and the following:

- 1) How to measure contaminant transfer.
- 2) A method of test for air-to-liquid exchangers that transfer both heat and moisture between an air stream and a liquid stream. Perhaps this should be a separate standard.
- 3) Techniques for measurement of frost.
- 4) Other methods of test (e.g. transient behavior). Alternate approaches may be found in academia or in other industries. Some may make field testing easier

Method of test of air to liquid, that would transfer heat and liquid

Techniques for measurement of frost, Greg suggested to expand this to controlling of it.

Looking at transient test methods for verification would be an alternate test method. Bob had interest in this as a low cost test method that could be used to verify equipment in the field.

Greg suggested the other subcommittees meet to come up with ideas like the SPC 84 did, but via conference calls to help out on research, programs, handbooks. Idea was to remove the subcommittee meetings at the meetings. If interested make sure to contact the chair of the subcommittee.

Also, guests were encouraged to go to the website to request corresponding membership and the current membership.

5. John Diekmann gave updated on RTAR 1565 on DOAS design guide, a contractor was approved, the committee will vote at this meeting to approve the contract. After this it will be approximately, 2 years.

#### 6. Membership (Bert Phillips)

Not present.

#### 7. Website (Charissa Garcia)

New logo has been updated on site, and page should be up to date. Everything should be up to date. Drake suggested Charissa send an update the group how to get to the website. Charissa reported the physical list is up to date, but the list serve is not. The member list will be updated to be more user friendly, any member contact information that will be posted public onsite will be asked.

### Liaison Reports

#### 1. SSPC 189.1 (Carol Marriott)

No update/changes

#### 2. SSPC 90.1 (Drake Erbe)

Addendum BT Energy recovery change proposal to go out, by unanimous vote. It has been cost justified to use energy recovery in some cases down to 10% OA for 6B,A zones and 7,8. Could not justify greater than 5000cfm for northwest, this lines up with current codes in CA, WA, OR. The benefits will be seen in 2013 and primary building types affected are office, warehouses and lodging. This represents a 23% increase the building construction that air to air energy recovery will be prescribed for in the standard.

DCV will be lowered also to less dense populated buildings, in a separate addendum.

Addendum U for fan efficiency is going out for review in July.

8760hr runs on base buildings are to be done, believe this will increase benefits for energy recovery.

3. Standard 62.1 (Hoy Bohannon)

Addendum k, (recirculation of class 4 air when energy recovery used). There was a vote in the subcommittee to withdraw, then it was overturned in main committee to be changed to go ahead redrafted the addendum in response to comments, some ideas are to make exceptions for class 4, or new class 5, or remove lab hoods from 62 definitions. TC 5.5 position was well stated and understood. Any changes or public reviews not expected before Dallas.

4. TC 7.8 (Klas Haglid)

**Other Old Business**

**New Business**

ASHRAE strategic planning wanted ideas for any new initiatives from our committee. Chair asked for ideas from the committee, and for members to look at this and think of how energy recovery can fit in this plan. Maybe a book or guide on energy recovery for special publication was an idea brought up by John D, Drake E. Drake and John and Ronnie and Blake to draft an outline on what this book would look like. First step suggested by Greg was to determine target audience is.

Paul Dapple from VRF section suggested committee may be interested in seminar showing using VRF and energy recovery together, group concurred would fit since ERVs are used often with these.

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**ATTENDEES**

<b>Name</b>	<b>Member Status</b>	<b>Organization</b>
Greg Dobbs	Chair	Penn State
Matthew Friedlander	VM/Standards	RenewAire LLC
Drake Erbe	NVM	Airxchange
Hoy Bohannon	NVM	Working Buildings
Bob Besant	VM	Univ of Sask.
Michael Sherber	CM	The Firma Group
Dominic Kolandayan	CM	Daikan AC
Xuan Le	CM	Kraton
Charissa Garcia	NVM	AHRI
Paul L Doppel	Guest	Mitsubishi Electric
Gus Mastro	Guest	Section 5 Head
Solomon Yin	Guest	TAMU/ESL
Jennifer Rees	G	Texas A&M ESL
Thomas Kelly	CM	Carrier
Mike Scofield	CM	Conservation Mech Sys
John Dieckmann	VM	TIAX LLC
Blake Erb	CM	Venmar CES
Carey Simonson	CM	Univ of Saskatchewan
Ronnie Moffitt	VM/VC	Trane



