

ASHRAE, INC.
1791 Tullie Circle, NE / Atlanta, GA 30329
404-636-8400
TC/TG/TRG MINUTES COVER SHEET

(Minutes of TC/TG/TRG Meetings are to be distributed to those listed below within 60 days after the meeting.)

TC/TG/TRG NO.: **TC 1.12**

TC/TG/TRG TITLE: **Moisture Management in Buildings**

DATE OF MEETING: **January 21, 2012, 1pm to 3pm.**

LOCATION: **Palmer House Hotel, Chicago, IL, room Clark 5**

Minutes Approved at the San Antonio Annual Meeting, Saturday, June 23rd 2012.

MEMBERS PRESENT	TERM EXPIRES 6-30	MEMBERS ABSENT	TERM EXPIRES 6-30	EX-OFFICIO MEMBERS
Lew Harriman III	2013	Alex McGowan	2015	
Anton TenWolde	2012	Andreas Holm	2012	
Jeff Traylor	2012	Raoul Webb	2014	
Lan Chi Nguyen	2015			
Steven Cornick	2013			
Paul Shipp	2013			
Louis Kelter	2012			
Hugo Hens	2013			
Achilles Karagiozis	2013			
CORRESPONDING MEMBERS PRESENT		CORRESPONDING MEMBERS ABSENT (CONTINUED)		ADDITIONAL ATTENDANCE
Theresa Weston		Andre Desjarlais		Gordon Hart
Hartwig Künzel		Larry Elkin		K. Quinn Hart
Wahid Maref		Diana Fisler		Florian Antreter
Sam Glass		Stan Gatland		Chris Crall
Fitsum Tariku (provis. CM)		Manfred Gerber		Sam Zelinka
Mark M. Anderson		Michael Hayes		Bill Chadwick
Ray Patenaude		Dale Herron		Bruce Lindsay
		Carl Lawson		
		Mark Lawton		
CORRESPONDING MEMBERS ABSENT				ADDITIONAL DISTRIBUTION
Ron Bailey		Neil Leslie	Section head	Victor Penar
Joseph Griner, III (prov. CM)		Rodney Lewis	TAC Chair	Charles H Culp, III
Fiona Aldous		Him Ly	Liaisons	
Gil Avery		Wahid Maref	Mgr of Stds.	Stephanie Reiniche
Holly Bailey		John Murphy	Mgr of R&T	Mike Vaughn
Stephen Barefoot		Albert Pucino		
Marcus Bianchi		Mika Salonvaara		
Doug Bibee		Elia Sterling		
Jim Cummings		Davidge Warfield		
Leonard Damiano		Bede Welford		
Claudio Darras				

TC 1.12 Moisture Management in Buildings
1 to 3pm, January 21th 2012
Palmer House Hotel, Chicago, IL, room Clark 5.

1. Call to order – Lew Harriman III – Chair

Chair called meeting to order at 1 PM and read the TC 1.12 scope statement.

2. Self-Introduction of members and guests – Lew Harriman

Those present introduced themselves. Quorum was established.

3. Approval of minutes from Las Vegas meeting – Lew Harriman

Motion: Jeff Traylor moved to accept the draft minutes from the Montreal meeting. Paul Shipp seconded. Motion carried (8, 0, 0, CNV)

4. Review agenda – Lew Harriman

There was one new item added to the agenda: discussion of a Building Envelope Science and Technology TG by Ray Patenaude.

5. Chairman's report – Lew Harriman

The chair reported that nominations for the Hightower Award are due in October.

6. Program – Lew Harriman

Program chair Alex McGowan was absent, and Lew Harriman led the discussion.

- a. Chicago program: None of the proposed seminars are on the program for various reasons. The proposed seminar entitled "Mold, moisture management and human health", chair Steve Cornick, was submitted but rejected. The other three proposed seminars were not submitted
- b. San Antonio: the following programs were proposed
 - i. Seminar: "What does the HVAC engineer need to know about building enclosures?"
Chair Ray Patenaude ; speakers Hugo Hens and Ray Patenaude.
 - ii. Seminar: "World-wide measured values of indoor humidity;" Chair Steve Cornick.
Potential speakers: Sam Glass, Hugo Hens, Florian Antreter.
 - iii. Seminar: "Building envelope real-world case histories in moisture management" Chair Lew Harriman
 - iv. Seminar: "Building Envelope Science and Technology (BEST) Task Group – what needs to be done?" Chair: Ray Patenaude
- c. Dallas: Symposium: "World-wide measured values of indoor humidity;" Chair Wahid Maref.

7. Handbook – Hugo Hens

Handbook chair Hugo Hens gave an overview the second draft handbook chapter that had been posted on the Google web site. He pleaded for more comments, data and material for the chapter, to be submitted to Hugo by email. Areas that need strengthening are the following:

- Condense information into tables where feasible
- More information on hygric buffering.
- Current data on vapor release are very high. Measured data are lacking worldwide, but the chapter needs better numbers.
- What is the role of foundations as moisture source and sink?

- The chapter needs more material on the interaction between HVAC systems, humidity, and the envelope.

Specific help was offered in the following areas:

Hygric buffering (section with examples): Hartwig Kunzel, Florian Anreter

Moisture sources: Sam Glass, Hartwig Kunzel

The chapter is projected to be included in the 2017 version of the Handbook of Fundamentals. Some TC-members also requested a practices chapter for inclusion in the 2015 or 2019 version of the Handbook of HVAC Application, but no volunteer emerged to take the lead.

8. Research – Steve Cornick

- Status update – Equations to Estimate Evaporation Rates from Wetted Surfaces in Natatoriums, Commercial and Institutional Building and Meat Processing Plants (WS-1566, developed by TC 8.10) – Status:* Lew Harriman reported that the work statement was in the process of being rewritten. According to RAC the problem described in the work statement was oversimplified. RAC would like the TC to make work statement more comprehensive and more authoritative. RAC would also like the budget to be decreased at same time. TC 8.10 is redrafting the work statement. Topic expires from society research implementation July 2013
- Status update – Development of the ASHRAE Design Guide for Dedicated Outdoor - Air Systems (1565-TRP) - Status:* The work statement was approved for funding at the \$150K level and released for bid in the spring of 2011 with 5 potential bidders and 3 strong contenders. No bids were received. The comments that Mike Vaughn received from the potential bidders was that they wanted to submit a proposal but there was not enough time to assemble the team to produce press ready file. Lew Harriman reported the TRP went for out for re-bid in the fall of 2011 and that the PES was to meet in Chicago to select the successful bidder.
- Research subcommittee meeting – Brain storming session –* At the Montreal annual meeting Steve Cornick and Stan Gatland agreed to conduct a 1-hour long brainstorming session at Chicago winter meeting during the research subcommittee meeting. Unfortunately Stan Gatland was unable to attend the Chicago meeting. Theresa Weston graciously agreed to conduct the brainstorming session which lasted for almost two hours. The session was lively and attendees were asked to submit at least three research topics and describe them. Others were encouraged to build on the ideas submitted. The result was that over 50 potential topics were generated during the session. Steve Cornick will, record the topics, organize and sort them, and post the results on the TC Google for comment by April 15th.

Action items:

Cornick will, record the topics, organize and sort them, and post the results on the TC Google for comment by April 15th.

9. Old Business – Lew Harriman

Lew Harriman gave a status update on ASHRAE's Mold Position document. The committee, which Lew chairs, spent 1 year formulating the document. The committee reached consensus (not unanimous) to approve and has forwarded it to Tech Council for approval. It may be approved by the Board at the Chicago meeting. Health issues were the most controversial.

Steve Cornick gave a demonstration on how to link up with the Google Groups TC1.12 web site. There is a link on the TC1.12 home page to the Google Groups site. The link is:

<https://groups.google.com/group/ashrae-tc112>

10. New Business – Lew Harriman

- Lew Harriman reported that the Standard 62.1 Committee has invited input from TC 1.12 – Several members are willing to entertain a suggestion to replace the current recommended 65% RH high limit for mechanically-cooled buildings with a dew point limit. The 65% limit may pose a problem in unoccupied or partially-occupied buildings. Mark Anderson volunteered to chair an

ad-hoc committee to prepare a recommendation. Other members: Quinn Hart, Jeff traylor, Gordon Hart, and Lew Harriman.

- b. Ray Patenaude discussed the Building Envelope Science and Technology (BEST) Task Group to be formed – a multidisciplinary group across TC’s. He called for interested persons to contact him.

11. Mini-Presentation – Sam Zelinka

Dr. Samuel Zelinka of the USDA Forest Products Laboratory gave a presentation on the corrosion of metals in wood. The presentation was broken into three subsections: (1) differences between atmospheric corrosion and corrosion in wood; (2) the relationship between wood moisture content and the corrosion rate; (3) how the corrosion of fasteners affects the structural capacity of the wood-metal connection. A copy of the slides is included with the meeting minutes.

12. Adjourn – The meeting was adjourned at 3:10 PM

Next meeting San Antonio, Saturday 13:00 – 15:30 June 23, 2012

Action items as of January 2012

WHO	ITEM	DEADLINE
Anderson	Gather input from Std 62 subcommittee members, organize it, discuss it and report with recommendation to the full committee on the question of changing the max rh recommendation in std 62 to a max dew point recommendation	June 10 th , 2012
Cornick	Record the research topics, organize and sort them, and post the results on the TC Google for comment by April 15 th .	April 15 th , 2012
All	Send appropriate material for the Handbook chapter to Hugo	ongoing
Hartwig Kunzel, Florian Antreter	Submit Handbook sections on hygric buffering (section with examples)	April 15 th , 2012
Glass, Künzel	Submit Handbook section on moisture sources	April 15 th , 2012
Harriman	Draft an outline for a chapter in the APPLICATIONS volume of the handbook that is focused on common problems and solutions in moisture management. (Outline partly based on work of the Mold Position Document Revision Committee)	April 15 th , 2012
Patenaude	Submit a seminar entitled “What does the HVAC engineer need to know about building enclosures?” for San Antonio	February 13 th , 2012
Cornick	Submit a seminar entitled “World-wide measured values of indoor humidity” for San Antonio	February 13 th , 2012
Harriman	Submit a seminar entitled “Building envelopes: real-world case histories in moisture management” for San Antonio	February 13 th , 2012
Patenaude	Submit a seminar entitled “Building Envelope Science and Technology (BEST) Task Group – what needs to be done?” for San Antonio.	February 13 th , 2012
Cornick	Check availability of presenters, then resubmit a seminar for Dallas entitled “Mold, moisture management and human health” for Chicago	Before Dallas seminar deadline (Perhaps July 13 th ?)

Minutes prepared by A. ten Wolde