

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.)
 These minutes were approved at the Seattle 2014 Summer Meeting

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

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

DATE OF MEETING: **January 18, 2014, 1pm to 3pm.**

LOCATION: **Sheraton New York Midtown, Conference Room K, Lower Level**

MEMBERS PRESENT	TERM EXPIRES 6-30	MEMBERS ABSENT	TERM EXPIRES 6-30	EX-OFFICIO MEMBERS
Lew Harriman III	2013	Quinn Hart	2016	Victor Penar
Ray Patenaude	2016	Hugo Hens	2013	
Raoul Webb	2014	Achilles Karagiozis	2013	
Steven Cornick	2013	Alex McGowan	2015	
Paul Shipp	2013	Lan Chi Nguyen Thi	2015	
Stan Gatland	2016	George DuBose	2016	
Norm Nelson	2016			
Florian Antreter	2016			
CORRESPONDING MEMBERS PRESENT		CORRESPONDING MEMBERS ABSENT (CONTINUED)		ADDITIONAL ATTENDANCE
Hartwig Künzel		Wahid Maref		John G. Davis
Gordon Hart		Larry Elkin		Ed Light
Andre Desjarlais		Diana Fisler		Christy Cronin
Sam Glass		Jeff Traylor		Dane Christensen
Anton TenWolde		Michael Hayes		John L. Harrod
Manfred Kehrer		Dale Herron		Donald Snell
Fitsum Tariku		Gil Avery		
Mika Salonvaara		Albert Pucino		
Ron Bailey		Carl Lawson		
Holly Bailey		Mark Lawton		
Theresa Weston		Neil Leslie		
William Chadwick		Him Ly		
Louis Kelter		John Murphy		
CORRESPONDING MEMBERS ABSENT		Leonard Damiano		ADDITIONAL DISTRIBUTION
Rodney Lewis		Claudio Darras	Section head	Victor Penar
Mark M. Anderson		Doug Bibee	TAC Chair	William McQuade
Davidge Warfield		Elia Sterling	Liasons	
Bede Welford		Dwight Heberer (prov. CM)	Standards	Heather Platt
Joseph Griner, III		Christine Maurer (prov. CM)	Research	Arthur Giesler
Fiona Aldous		Manfred Gerber	Staff	Mike Vaughn
Marcus Bianchi			Chapter TT	Alexander Weiss
Stephen Barefoot			ALI/PDC	Donald Brandt
Jim Cummings			Special Pubs	Francis Mills

TC 1.12 Moisture Management in Buildings

June 22, 2013, 1pm to 3pm.

Sheraton Downtown Denver, CO, Director's Row E

1. Call to order – Steve Cornick, Chair

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

2. Self-Introduction of members and guests – Steve Cornick

Those present introduced themselves. Quorum was established.

3. Approval of minutes – Steve Cornick

George DuBose moved approval of the minutes. Raoul Webb seconded. *Minutes approved (7 approved, 2 abstained, chair not voting).*

4. Review agenda – Steve Cornick

Lew Harriman recommended adding the new EPA guidelines regarding mold in buildings to New Business as well as a review of the TC 1.12 Roster. George DuBose moved to approve the agenda as edited. Steve Cornick seconded. *Edited agenda approved (7 approved, chair abstained, 2 absent).*

5. Chairman's report and Roster Review – Steve Cornick

- a. Updates: The Chair stated that he would post an update from the section head after the meeting.
- b. Roster Review: Steve Cornick stated that he is the new Chair of TC 1.12 and that Lew Harriman is the Vice-Chair. Ray Patenaude is the Program Chair, Hugo Hens is the Handbook Chair, Christy Cronin is the Secretary. Steve Cornick is also serving as Research Subcommittee Chair and Webmaster. The chair reported that former chair Lew Harriman would be added as a voting member. Christy Cronin, Sam Glass and Jeff Traylor will also be added as voting members and Steve Cornick nominated Hugo Hens as a non-quorum member. The chair also invited all interested non-member attendees to become corresponding members of TC 1.12 by giving him their business cards and ASHRAE member numbers. Steve Cornick noted that Raoul Webb is rolling off in June and that Florian Antretter is currently a non-quorum member.

6. Research – Steve Cornick

- a. *Damp Building Measurement Criteria and Inspection Protocol – Lew Harriman.* Lew Harriman read an edited Work Statement for consideration by the committee. He noted that there were three changes from the previous version: (1) a discussion on durability in the mold position document was added, (2) a paragraph under “recommended plan” was added making it clear that while the document may be useful to public health officials, applications to public health were not part of this effort, and (3) the membership paragraph was made more general (the document recommends achieving balance in the committee through consultation with various groups, but did not specify the particular composition of the group). Raoul Webb proposed a motion to approve the Work Statement. Lan Chi Nguyen Thi seconded the motion. During the discussion Andre Desjarlais suggested that the new paragraph regarding health was in contradiction with the goal of reducing dampness related health risks. Lew Harriman responded that the application of the dampness protocol would be in the hands of public health authorities and that the protocol would be partially informed by health considerations, but that health metrics would not be developed. The Chair then invited the vote to approve the Work Statement. *10 voted in favour and 2 were absent. None were opposed and none abstained.*
- b. *ASHRAE Design Guide for Dedicated Outdoor - Air Systems (1565-TRP) – Lew Harriman.* TC 8.10 (TC 1.12 cosponsors this project.) Lew Harriman stated that the contract with the original contractor was terminated and the guide has been put out to bid again. *There were six bidders and a contractor will be chosen in New York; it is anticipated that a first PMS meeting will be held at the Seattle June 2014 meeting.*

- c. *WS 1566 Water vapor evaporation rates from swimming pools*. TC 8.10 (TC 1.12 cosponsor). Steve Cornick stated that this has come back from RAC.
- d. *RTAR: A method to determine residential whole home dehumidification capacity requirements*. TC 8.10 (TC 1.12 cosponsor). Liaison Sam Glass reported that the RTAR author did not perceive enough interest in TC 8.10 and that TC 1.12 may take over this project. Sam Glass is the lead co-author and will post the document to Google Groups.
- e. *RTAR Modeling Water Vapor Permeation in Pipe Insulation*. TC 8.10 (TC 1.12 cosponsor). No progress in this RTAR was made since the last meeting. It was agreed at the research subcommittee meeting that the Research Subcommittee and TC would review the RTAR and vote for co-sponsorship when it was ready.
- f. Status update on potential new RTARs:
 - i. *Shingle Permeability RTAR proposed co-sponsorship with TC 4.4* – Steve Cornick reported that the research sub-committee does not object to the technical merit of the proposed research and offers support to TC 4.4, but recommended against co-sponsorship. Manfred Kehrer and Andre Desjarlais disagreed with the research sub-committee’s recommendation and stated that if the committee agrees this work is important, TC 1.12 should cosponsor the RTAR, adding that RAC views co-sponsorship as important. Alex McGowan moved that TC 1.12 co-sponsor the R-TAR. Stan Gatland seconded the motion. During the discussion, Hugo Hens stated that there should be a clear difference between TC 1.12 and TC 4.4. This committee is interested in measuring systems and the proposed RTAR is clearly the business of TC 4.4. Manfred Kehrer countered that high moisture levels have been observed in unvented attics in the south and not knowing the permeance of the shingles is problematic. Following the discussion *8 voted in favour of co-sponsorship, 1 was absent and the Chair abstained.*
 - ii. *Techniques for Minimizing Construction Moisture Problems* – Ed Light stated that this topic may be pursued as a special publication, not an RTAR so that more attention can be devoted to developing the damp building measurement criteria.
 - iii. *Techniques for Limiting Indoor Dampness and Microbial Growth During Unoccupied Hours and In Buildings That are Seasonally Occupied* – Lew Harriman. No progress was made since the last meeting.
 - iv. *Humidity Loads Generated in Non-residential Buildings* – Theresa Weston, Sam Glass, Raoul Webb. No progress was made since the last meeting.
 - v. *Techniques for Limiting Indoor Dampness and Microbial Growth in Heritage and Special-purpose Buildings* – Steve Cornick. No progress was made since the last meeting.

7. Handbook – Hugo Hens

- a. Handbook of Fundamentals chapter. The chapter needs more information on hot humid climates. Hugo Hens requested that the committee read and comment on the 6th version of the chapter before the Seattle meeting. After the next meeting, Lew Harriman will put the document in Handbook format. Steve Cornick will be producing a publication schedule.
- b. Applications Handbook chapter. The chapter is to be published in 2015 and if it is not approved at this meeting, it will be delayed for four years. Lew Harriman reported that there were five minor changes from the morning’s Handbook subcommittee meeting. Lan Chi Nguyen Thi questioned one of the five changes, which added a statement to the introduction that visible mold is a call to action, stating that the chapter is about dampness, not mold and health. Hugo Hens added that there are health concerns apart from mold related to dampness such as those related to VOC emissions. The consensus was to omit the edit referencing health authority opinions in the introduction. Raoul Webb motioned that TC 1.12 accept the draft as amended. Norm Nelson seconded the motion. *10 voted in favor, none were opposed. There was 1 absence and the Chair abstained.*

8. Program – Steve Cornick

- a. New York:
 - i. Seminar 57 is being chaired by Lew Harriman.
- b. Seattle
 - i. Seminar on EPA guidelines for moisture control in buildings. Chair Ray Patenaude.
 - ii. Seminar on assessment of building diagnostic tools and techniques. Chair Alex McGowan.

- c. Chicago:
- i. *“None of Your Damp Business,”* a forum on establishing a dampness protocol for buildings. Chair George DuBose.
 - ii. Program on the new handbook chapter. Chair Lew Harriman.
 - iii. Seminar on passive cooling and hot humid weather. Chair Hugo Hens.

Steve Cornick moved that the proposed program plan be accepted by the Committee. Alex McGowan seconded. 10 voted in favour, Chair abstained.

9. Old Business – Steve Cornick

There was no old business to report

10. New Business – Lew Harriman

EPA Guideline on moisture control in buildings: Lew Harriman stated that the guideline has been published and is available electronically from the EPA website.

11. Mini-Presentation – Brady Carter

Water Activity: What it Means, Why it’s Important and Progress Towards Measuring it in Buildings (presentation attached).

12. Adjourn – The meeting was adjourned at 15:00

Next meeting: Seattle, Saturday June 28, 2014 - 13:00 – 15:00

Action items as of January 2014

WHO	ITEM	DEADLINE
Nelson/DuBose	Review and contribute HOF chapter wrt to and hot humid climates	June 1, 2014
Cornick	Draft a publication schedule started from the camera copy drop dead date for 2017 Hardcopy handbook.	June 1, 2014
Cornick	1566-RTAR Follow up with TC 8.10 chair on status and report to TC after NYC; as liaison	March 1, 2014
Glass	With 1.8 co-author draft RTAR “whole home dehumidification capacity” for vote in Seattle or earlier if possible for letter ballot	June 1, 2014
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	On-going
All	Send appropriate material for the Handbook chapter to Hugo	June 1, 2014
Patenaude	Submit Seminar “New EPA Guidelines for Moisture Control in Building.” For Seattle.	Feb 13 th , 2014
McGowan	Submit Seminar on “Assessment of Building Dampness: Diagnostic Tools, Techniques, and Case Histories” for Seattle	Feb 13 th , 2014
Hens	Submit a conference paper session entitled “Hygric buffering to save energy and control humidity in buildings.” For Chicago	Mar 24 th , 2014
Hens	Submit Seminar: “Passive Means to Control	Aug 12th, 2014

	Temperature in Hot and Humid Climates” for Chicago	
Harriman	Submit Seminar: “The new HOA Chapter 44” for Chicago	Aug 12th, 2014
DuBose	Submit Forum: “None of Your Damp Business: Damp Building Definition Protocol Debate.” for Chicago	Aug 12th, 2014
Light	Submit Seminar: “Energy Implications of Humidity Control” for Atlanta	Feb 13 th , 2015
Harriman	Develop RTAR “ <i>Techniques for Limiting Indoor Dampness and Microbial Growth During Unoccupied Hours and In Buildings That are Seasonally Occupied</i> ”	On going
Shipp, Light	Develop a Special Publication “ <i>Techniques for Minimizing Construction Moisture Problems</i> ”	On going
Weston	Develop RTAR “ <i>Humidity Loads Generated in Non-residential Buildings</i> ”	On going
Cornick	Develop RTAR “ <i>Techniques for Limiting Indoor Dampness and Microbial Growth in Heritage and Special-purpose Buildings</i> ”	On going
Harriman	Notify TC 4.1 (Load Calculation Data & Procedures) that Sam Glass’ research strongly suggests that current internal humidity load equation in the ASHRAE handbook severely underestimates the observed data, and that TC 1.12 respectfully suggests that TC 4.1 re-evaluate the values generated by equation 31 of chapter 17 of the 2009 FUNDAMENTALS in light of this fact.	

Minutes prepared by C. Cronin