

ASHRAE TC 1.12
Moisture Management in Buildings
Full Committee Minutes
2024 ASHRAE Annual Meeting

Subcommittee Meeting
Saturday 1/20/2024, 8:00 AM - 12:00 PM CDT
Marriott Marquis Chicago, Architecture (2)
[Hybrid](#)

Main Committee Meeting:
Saturday 1/20/2024, 1:00 PM - 3:00 PM CDT
Marriott Marquis Chicago, Architecture (2)
[Hybrid](#)

1. Call to order

Voting members present: Carl Grimes, Erika Bonfanti, Dave Finley, Wahid Maref, Don Snell, Danko Davidovic, Ed Light, Mikael Salonvaara,

Corresponding members and guests present: Rui Zhang, Antonio Aldykiewicz Jr, Emishaw Izza, David Baird, Matthew Kilmer, Angela Smith Neal, Robert Renz, Scott Grefsheim, Florian Antretter, Lucas Roy, Max Lirchak, Wyatt Hahn, Greg Tinkler, Neil Friedberg, Vinod Venugopal, Norm Nelson, Andre Desjarlais, Steven Duda, Jason Atkisson (SH), Ken Shifflett, Pat Graef, Joshua Estes, Mehdi Gobahdi, Peter Luttik, Naga Thyagarajan, Achilles Karagiozis, Terry Brooks

2. Review Scope

Carl Grimes

TC 1.12 is concerned with the interaction between the weather, the building envelope, its systems and its occupants which either lead to moisture accumulation or which prevent it.

3. ASHRAE Code of Ethics Commitment

Carl Grimes

“In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests.” See full ASHRAE Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>

4. Introductions

All

a. Determination of a quorum

Diana Fisler

VOTING MEMBERS FOR THIS MEETING (Need (6) or ½+1 for a Quorum)

Carl Grimes	07/01/2025
Erika Bonfanti	06/30/2024
Dave Finley	06/30/2024
Wahid Maref	06/30/2024
Don Snell	06/30/2027
Simon Pallin	06/30/2024

Deborah Callaway	06/30/2025
Danko Davidovic	06/30/2026
Paul Haas	06/30/2024
Ed Light	06/30/2025
Mikael H Salonvaara	06/30/2026

5. Agenda additions

All

6. Chair's Report

Carl Grimes

a. Chair's Goals

b. Announcements and Highlights from TC Chairs Breakfast Meeting

7. Approval of minutes from Hybrid Summer Meeting

Carl Grimes

Dave Finley moved to approve, Wahid Maref seconded. Motion passed.

8. Membership/Roster

Diana Fisler

Starting August 1st: 2023 (All voting members and/or subcommittee chairs) Paul Haas is rolling off. Neil Friedberg is rolling on. TC officers will retain their votes.

Name	Role	Voting
Carl Grimes	Chair	Yes
Erika Bonfanti	Vice Chair	Yes
Diana Fisler	Secretary	Yes
Wahid Maref	Research Chair	Yes
Don Snell	Standards Chair	Yes
Simon Pallin	Handbook Chair	Yes
Dave Finley	Program Chair	Yes
Rui Zhang	Membership Chair	No

Name	Role	Voting
Deborah Callaway		Yes
Danko Davidovic		Yes
Neil Friedberg		Yes
Ed Light		Yes
Mikael H Salonvaara		Yes

9. Subcommittee reports

a. Programs

Dave Finley

For the Chicago Meeting:

- TC1.12 is sponsoring Workshop 2: Planned and Unplanned Pathways in Buildings and Its Influence on Ventilation, IAQ and Air Delivery
- TC1.12 co-sponsored Seminar 51: Emerging Building Envelope Materials: High-Performance, Low-Embodied Carbon Materials for Decarbonization

For the upcoming Indianapolis Meeting:

- Several tracks for the conference were provided; however, they do not align well with our typical content.
- Based on the research topics, Building Retrofit Electrification and its Effect on Moisture Management would fit well in Track 5 Electrification: Possibilities and Pitfalls. The committee decided to submit a proposal for a Forum. Dave made this motion, and Erika seconded. Motion passed. Wahid originally was slated to chair the Forum; however, he had to withdraw. We are currently soliciting a volunteer to chair/moderate the Forum.
- Proposals for all Debates, Panels, Seminars, Forums, and Workshops are due on Monday, February 26, 2024

As a miscellaneous note, the following is the schedule through 2026:

- Summer 2024 Indianapolis
- Winter 2025 Orlando
- Summer 2025 Phoenix
- Winter 2026 Las Vegas
- Summer 2026 Austin

b. Research

Wahid Maref

RESEARCH PROJECTS

RP-1844: Estimating Internal Moisture Generation Rates in Recently Constructed, Occupied Homes.

This project has been voted by the PMS and recommended to the TC 1.12 on June 2023.

The committee has been voted by the Committee on 25 Nov 2023 through a letter ballot. The results were as follow based on Carl Grimes (Chair) email on 26 Nov 2023 :

The Letter Ballot results are 8 votes received out of a possible 11, so quorum was met.

Yes was 7, Abstain was 1, No was zero (0) - so the "Yes" votes were a majority of ballots received and a majority of all possible votes.

RP1844 is approved by the TC1.12 committee.

Proposed RTARS

Managing moisture sources during construction- within materials and due to external weather conditions.

Ed Light, Lew Harriman (consultant), TC 4.4, **Danko Davidovic** (Champion), Fitsum Tariku, Donald Snell (Danko will bring it up to TC 4.4 tomorrow, 5 Feb 2023)

Carl Grimes, Peter Luttik (See topic 4 on occupant comfort);

Risk assessment practitioners guide to whole-building moisture and hygrothermal analysis...

Ed light, Fitsum Tariku, David Findley, Erika Bonfanti, **Emishaw Iffa** (Lead)

Occupant comfort, experience relevant to health and well-being...

Carl Grimes (Lead), Florian Antretter, Ed Light, **Peter Luttik** (Co-Lead)

Integration of New materials/products and their effectiveness versus potential issues with them in different climate zones (Carbon Gypsum Board, Wood-based low Embodied products, etc.) for TC 4.4 and Co-sponsored by TC 1.12)

Andre Desjarlais (Lead), Mehdi Ghodabi (Co-Lead), (Parking lot for now. Should be discussed with TC 4.4 since it is building materials as well)

Building retrofit electrification (Heat pump power heating, etc.) and Effect on moisture management
Proposed as a Forum to Indianapolis first and then seek for feedback to write the RTAR based on that feedback.

Diana Fisler, Simon Pallin, Mehdi Ghodabi, Donald Snell, Wahid Maref, Mika (Lead), look for somebody from ORNL.

Identifying safe climate specific moisture levels for different building typologies.

André Desjarlais, Peter Luttik (Added on Feb 4, 2023).

All Lead people of these potential RTARS committed to write it with his or her coauthors (at least drafted) before the next meeting in Indianapolis.

c. Handbook

Simon Pallin

Handbook will be updating us on the approaching deadline for revising fundamentals.

d. Standards

Don Snell

Updates since our last meeting in Tampa

- 1) New ASHRAE position document proposed on health and wellness in the built environment. Contact Carl Grimes for input through SGCP 10 and the Environmental Health Committee. Timeline is one year.
 - a) Pending Public Review of Guideline 10 Addendum H.
 - i) Carl understands that Standards review is almost completed, and it could be posted before the end of the conference.
 - ii) Relevance
 - (1) series of definitions of moisture and its subordinate terms
 - (2) their Interactions among both themselves and with materials and assemblies of buildings (as it affects the acceptability of indoor environments).
- 2) Standard 241P Control of Infectious Aerosols approved this morning. TC 1.12 would like the opportunity to review prior to incorporation into ANSI standard.
 - ii) Initiated discussions with Steve Hammerling (shammerling@ashrae.org) for more information.
- 3) Update on review of ISO 22185-2 draft comment phase is complete. Awaiting input on timeline for Part 3.
 - b) Now in development, ISO/PWI 22185-3, 00.00 Proposal for new project received Sep 26, 2022
- 4) Discussed content that is not currently reflected in Standards that would be beneficial.
 - a) Quality control guideline for moisture management in buildings during construction; Theresa Weston notes we could incorporate information into Guideline 46P and retitle or redefine scope.
 - i) Reference TC 1.12 Pathway to Guideline for Moisture Management Quality Control in Buildings During Construction - January 20, 2024
 - ii) TC 1.12 will need to vote and decide on GPC-46P and on any new standards work proposed

- (1) Put together a leadership team for the Guide
 - (a) T, P, S - retitled, redefined?
 - (i) QC or QA?
- (2) Other references
 - (a) GPC-46P (see T, P, S, roster, application)
 - (i) Damp Buildings, Human Health, and HVAC Design Report from ASHRAEs Multidisciplinary Task Group
 - (ii) Whole Building Design Guide (WBDG) and the work of Professor Ted Kesik of the University of Toronto (share email from Stephanie Vierra, technical editor and project manager for the WBDG)
 - 1. Moisture Management Strategies
 - 2. Building Enclosure Design Principles and Strategies
 - (iii) Guide for Resilient Energy Systems Design in Hot and Humid Climates, Dr. Alexander Zhivov, U.S. Army Engineer R&D Center, Champaign, IL
 - iii) GPC-46P is in need of a chair, so it would be great if someone from 1.12 were willing to take on that role.
 - b) Section Head to provide further information on standards committee involvement. 241P was hand-picked.
 - i) Expect further information from Steve Hammerling
- 5) Sam Glass discusses Standard 160 committee approval of updates and clarifications to reporting section and addition of reference to ASTM E3854. There is ongoing discussion on sections for rain penetration, freeze/thaw evaluation criteria, corrosion evaluation criteria, and material sensitivity and moisture tolerances (including structural effects and mold).
 - a) Initiated discussions with Sam Glass for further updates.
 - b) Standard 160 is "Criteria for Moisture-Control Design Analysis in Buildings." The ASTM standard that is referenced in 160 is E3054, "Standard Guide for Characterization and Use of Hygrothermal Models for Moisture Control Design in Building Envelopes."
- 6) ASHRAE Std 62.1 - Addendum K
 - a) Went out for public review in 2023
 - b) Lew's request related to Standard 62.1, Addendum K
 - c) LGH Notes for 10-7-2022 Meeting to Discuss APR Comments.doc
 - d) One unresolved comment per Liz Balke related to definition of zone under humidity limit discussion
 - e) Online Standards Review _ Online Comment Database_CommentResponses.pdf
- 7) Addendum K - Public Review Draft

The TC voted on a motion to include the words "and existing" in the scope of the document: GPC 46P. Motion passed 5/1/1

The TC voted on a motion to approve the revised document with changes that occurred during the standards subcommittee. Motion passed 6/1/0

e. Web site

NA

10. Old Business

11. New Business

- a.** Carl Grimes, Chair of SGPC10, to notify Committee of upcoming Public Review of Addendum H to Guideline 10. The Addendum includes definitions of Moisture and its various attributes for air and materials. Requesting input from the Committee during the Public Review process.
- b.** Cameron Labunski from the Publications committee attended our afternoon meeting to discuss his plans to update the humidity control design guide and ask for participation from our TC. We should set up a task force to work with him on it and figure out whether any funding has been secured and how much.

12. Adjourn

Minutes approved in ASHRAE 2024 Summer Conference meeting on June 22, 2024; prepared by D. Fisler.