

**ASHRAE TC 5.11 Humidifying Equipment
Main Meeting Committee Agenda
2024 ASHRAE Annual Conference
Hybrid Meeting
Tuesday 6/25/2024, 9:00 AM - 11:30 AM EDT
JW Marriott, 106 (1) & Virtual**



Microsoft Teams meeting
[Click here to join the meeting](#)
Meeting ID: 265 427 917 84
Passcode: KVgHmJ

1. Call to order

Harold Dubensky

2. Review Scope

Technical Committee 5.11 is concerned with equipment for raising the humidity of air in residential, and commercial, and industrial spaces; its application and control; effect of humidity on structures, content, processes, materials, and occupants; and testing and standards defining environmental and physiological requirements.

3. ASHRAE Code of Ethics Commitment

Harold Dubensky

“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 Duncan Curd

VOTING MEMBERS FOR THIS MEETING (Need (4) or ½+1 for a Quorum)

TC 5.11 Voting Members	Non-Voting Subcommittee Chairs
Harold Dubensky	Matthew Nowak
Raul Simonetti	Nicholas Lea
David Baird	Duncan Curd
Chris Habets	
Annette Dwyer	
Mitchell Geis	

5. Modifications to Agenda

All

6. Chair’s Report Harold Dubensky

a. Announcements and Highlights from Section 5 Breakfast Meeting

7. Liaison reports (as they arrive)

Liaisons

a. Section 5 Head

Kevin Marple

8. Approval of minutes from January 23, 2024, Hybrid Winter Meeting

Harold Dubensky

9. Membership/Roster

Duncan Curd

As of July 1, 2023: Voting members and/or subcommittee chairs.

Name	Role	Voting	Modifications as of 7/1/24
Harold Dubensky	Chair	No	-
David Baird	Vice Chair	Yes	Chair
Harold Dubensky	Research Chair	Yes	-
Duncan Curd	Secretary	No	Secretary
David Baird	Standards Chair	Yes	-
Nicholas Lea	Program Chair	No	-
Matthew Nowak	Webmaster	No	-
Mitchell Geis	Handbook Chair	Yes	Vice Chair
Raul Simonetti		No	-
Annette Dwyer		Yes	-
Michael Dovich		Yes	
Chris Habets		Yes	Voting non-quorum

- a. ASHRAE requires a TC Balance - See update FG MOP on basecamp.
- b. Term limits:
 - a. Chair = 2 years with a 1-year extension through the approval of the Section Head.
 - b. Vice Chair = 2 years.
 - c. The Chair's term is not limited by the policy limiting normal Member and Member Non-Quorum reappointments to four (4) consecutive terms.
- c. Chair and Vice Chair MUST BE ASHRAE members!
- d. The Chair should have served at least one one-year term as Vice Chair or Secretary.
- e. Corresponding Members can serve in all TC management positions except Chair.
- f. July 1, 2024: updates to voting members and/or subcommittee chairs. Email for the Roster Update Form will be sent the first of February.
 - a. ~ 2 weeks to make updates.
- g. Provisional Corresponding Members are dropped or changed to a Corresponding Member after 2 years.
 - a. The TC chair will email you to see if you want to be a Corresponding Member.

10. Subcommittee reports

- a. Programs Subcommittee - Nicholas Lea
 - i. Peer review of RWTH on humidification in German
 - 1 **ACTION: Continue to reach out about possible opportunity – Duncan**
 - ii. TC5.7 – interest in seminar
 - 1 Indi vs Vegas TBD
 - 2 Main theme focused on legislation for Las Vegas in particular.
 - a AHJ limiting adiabatic humidification based on water usage.
 - b Comment ASHRAE 170 – humidity in healthcare.

- iii TC 8.10 – specialized building applications
 - 1 There is an interest in doing programs on newer chapters.
 - a Fire halls.
 - b Atriums
 - 2 Potential for co-sponsor on humidity control on latter applications
- iv SPC 164
 - 1 Setup a forum in Basecamp
 - 2 Consideration: heat pump waste heat to be considered for adiabatic pre-heat application?
 - 3 Generally, 50% acceptance for submissions in Chapter 5
- b. Research Subcommittee – Harold Dubensky.
 - i Doug responded about the open RTAR on Minimum Humidity levels.
 - 1 TC 5.7 voted to co-sponsor RTAR.
 - 2 TC 1.4 declined to co-sponsor as did not see how could contribute.
 - 3 Next submission deadline in August
 - 4 **ACTION: Follow up with 4.3 about co-sponsorship – Harold - Complete**
 - a. Response from TC 4.3 about co-sponsorship
 - b. Email from Meghan McNulty on 1/15/24.
 - i We think it will be difficult to accomplish the desired outcomes with testing in only a single building.
 - ii We think doing as much sensing as is proposed is likely to be more expensive than the proposed budget.
 - iii We thought that this was an important topic, but it might be better to do controlled experiments or samples in many buildings, and to substantially increase the budget. Also, if only humidity and temperature data, perhaps you could get a lot of this data from trended BAS points and thus expand your sample size dramatically, with commensurate improvement in confidence of any relationship that was discovered. We would be happy to review another version for co-sponsorship.
 - 5 **ACTION: schedule a working group/meeting to discuss and review RTAR – establishing minimum humidity to achieve occupant health and productivity benefits. - Harold**
 - 6 **ACTION: Have a working group to review the RTAR - Harold**
 - ii TC 9.6 RTAR possible on Humidification and Airborne Transmission
 - 1 Essentially on hold for now and waiting on TC 9.6 to resume.
 - 2 Title: Understanding the appropriate application of humidity and temperature control strategies across climate zones on infectious aerosol transmission.
 - 3 **ACTION: Follow up with TC 9.6 – Harold – Complete**
 - 4 Response from TC 4.3 about co-sponsorship
 - a. Email from Ken Mead on 1/16/24.
 - b. July 2021: Team has met and is seeking input from an Infection Preventionist. The scope appears to be too broad.
 - c. May 2022: Team has not met since June 2021. New volunteers requested.
 - d. September 2022: SSPC170 Working Group taking over development of RTAR.
 - e. May 2023: Humidity working group will make recommendation.
 - iii David Hahm on co-sponsorship with TC 9.5: Thermal Comfort Regarding Station Platforms
 - 1 TC 5.9 is also interested in this topic regarding station platforms (metro). TC 5.9 discussed co-sponsorship initially but after discussion with the larger TC,

- there is an interest to be more involved. Possibility of TC 5.9 participation in the work plan development to see if we could pursue this topic together.
- 2 What is TC 5.9 promoting? We would be interested in seeing some additional details.
 - 3 **ACTION: Followed up- Harold - Complete**
 - a No response yet. - on hold no current action
- iv Maximum Humidity Levels in Buildings Peter Luttik from TC 8.10.
- 1 Looking to work with TC 1.12 on maximum humidity levels for liquid desiccant.
 - a. Request from Peter Luttik with TC 8.10 Chair for 5.11 could support the work by 1.12 to determine maximum humidity levels during heating and humidification using compressor based liquid Desiccant systems. The enclosed paper describes the system and cooling performance in heating the system automatically humidifies. There are basically two levels. One set of is conditions temp and rh where the heat pumps can safely operate without condensation during very cold periods or dew point above 55F during cool and humid conditions The second level is where there are risks but where the risks can be mitigated by monitoring cold spots in the building and reducing supply temp and humidity to control building dew point. TC 8.10 would be interested in jointly writing the RTAR so that we can make full use of your committee's expertise on the subject. We also like cosponsor ship with 1.12, 8.10 and SPG 10.
 - b. Heat pump that takes humidity from outside and moves it to the inside.
 - c. Manufactures: Emerson, Mojavi, Blue Frontiers
 - d. Peter Luttik chair 8.11: Dehumidification equipment, Liquid desiccant 50% relative humidity air at selected equipment
 - e. What is max dew point to not over RH% the air, Control issue.
 - f. TC 5.11 has general interest in cosponsoring this research.
 - 2 **ACTION: Follow up with Peter Luttik – David**
- v The next submission date for RTARs, PTARs and Ws is March 15, 2024.
- vi The standing RAC submission dates for new and revised RTARs and Ws are as follows each year:
- 1 March 15 – RAC Spring meeting consideration in April.
 - 2 May 15 – RAC Annual meeting consideration in June.
 - 3 August 15 – RAC Fall meeting consideration in Sept. or Oct.
 - 4 December 15 – RAC Winter meeting consideration in January.
 - 5 MMAD, more simply.
- c. Handbook Subcommittee - Mitchell Geis
- i **ACTION: Send letter ballot out for approval upon review by committee – Mitchell**
- d. Standards Subcommittee - David Baird
- i **ACTION: Send out for letter ballot to SPC 164 members for public review – David**
- e. Website Report - Matt Nowak
- f. AHRI Humidifier Education Working Group - Nick Lea
- i NATE course is nearing completion with 5 modules and 2 years of work.
 - ii The working group will need to consider what is next after completing NATE course.
 - iii A couple of standards 610/620/640 are currently under revision and will align with the ASHRAE method of test updates.
 - iv Large project with AHRI to put together comprehensive program through NATE.

11. Old Business

- a. Review Of actions from previous meeting minutes
- b. TC 5.11 coordinated comments regarding ASHRAE Standard 241P, Control of Infectious Aerosols, advisory public review (APR).
- c. CSA Hospital standard changes.
 - i Nick Lea is coordinated with engineers in the region to submit comments.
- d. ASHRAE Position Document: Infectious Aerosols
 - i TC 5.11 could submit comments as well.
 - 1 AHRI submitted comments but no formal means to do so.
 - 2 May consider from the TC instead.
- e. ASHRAE Std 170 – Ventilation for Healthcare
 - i Nothing changed regarding humidification.
- f. TC 5.7 Meeting
 - i Lots of interest in collaborating with TC 5.11
 - ii Water scarcity is becoming more of a concern as evaporative cooling is banned in 1 county. Considering research on water scarcity and impact of water bans on humidification.
 - iii Getting standard 133 update pushed through.
 - iv Std 143 – indirect evaporative cooling to get worked on
 - 1 Does standard 212 need a “home.”
- g. CSA 317.2 is up for public review, will align more closely with ASHRAE 170.

12. New Business

13. Adjournment