



**TC 8.10 - Mechanical and Desiccant Dehumidification
Equipment, Heat Pipes and Components
Sub-Committee Meeting Agenda for ASHRAE
Annual Conference Meeting 2021
Virtual**

WELCOME!

No need to say hello.
We will begin at 2:15 pm EDT

HOUSEKEEPING

Audio

- **PLEASE** mute yourself upon entry.
- Only Un-mute your line when you need to speak
- If you are joining via computer and phone line, ensure BOTH are muted

Video

- You are welcome and encouraged to share your webcam.
- To save internet bandwidth, keep your webcam off by default unless presenting.
- Be mindful that you are on display! Turn off your video when needed.

Agenda

- Facilitator this virtual meeting: TC 8.10 Chair, David Baird
- Draft Agenda was posted on TC 8.10 Website.
- Introduction
- Presentation
- Concluding Remarks



**TC 8.10 - Mechanical and Desiccant Dehumidification
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Date: Monday – February 1, 2021

Place: Zoom: <https://ashrae-org.zoom.us/j/99457572011?pwd=eERqOUo3K1NLMENU3Z1QklpUFdPUT09>

Time: TC 8.10 Sub-Committee Meetings – Monday, February 1, 2021 2:15 – 4:15 PM EDT

Note: TC 8.10 Main Committee Meetings – 1:00 PM to 3:00 PM EDT

Items: Related to TC 8.10:

SPC 198 Method of Test for Rating DX-Dedicated Outdoor Air Systems for Moisture Removal Capacity and Moisture Removal Efficiency, ????

Note: Within TC 8.10, we discuss research, handbook, and program activities during one combined subcommittee meeting. Voting members are strongly encouraged to attend the subcommittee meeting. Corresponding members and guests are welcome.

Scope of TC 8.10: is principally concerned with mechanical and solid/liquid desiccant dehumidification equipment and heat pipes and their design performance, applications engineering, related load calculations, commissioning, operation, and maintenance.

Call to order & Introductions: Chair, David Baird

1. Meeting called to order at 2:18 pm EST
2. Brief introductions

ASHRAE Code of Ethics, Chair, David Baird

“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”.

Determination of Quorum - Chair, David Baird

1. Majority of voting members must be present

Membership/Roster: Webmaster/Membership Subcommittee Chair, Gayle Davis

1. Membership conversion form TC 8.12 to TC 8.10 was not seamless but attempting to best of ability



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Liasons

1. RAC
 - a. Funding levels are down based on difficult fundraising year and missing matching funds from AHR show (~2 Million raised in 2020)
 - 1) Opportunities to donate encouraged
 - b. Composition of current RAC is 12 PhD individuals from a number of labs so consider how influences submissions
 - c. There are a number of projects queued up waiting for funding
 - 1) Moving in chronological order currently
 - d. Consider moving forward to get ahead of other TCs that may be waiting based on lack of funding available

Subcommittee Reports:

Programs – Program Sub-Committee Chair, Onieluan (Tam) Tamunobere

1. Summarize and update TC on seminar / program proposal for the Virtual meeting.
 - a. Seminar 16 with LIVE Q&A (Wednesday, February 10th from 1:30 PM – 2:50 PM)
- Dedicated Outdoor Air Systems: Applications, Specification and Commissioning (from old TC 8.10, co-sponsored by old TC 8.12)
 - b. Seminar 54 - From Research to Reality: Advances in Liquid Desiccant Technology (from old TC 8.12, co-sponsored by old TC 8.10)
2. Review proposals for future meetings
 - a. Phoenix Summer Meeting deadline for programs is 2/22
 - 1) TC 2.2 is considering program submission for HVAC&R for Indoor Plants & Animals track
 - a) Looking for additional presenters
 - b. Las Vegas Winter meeting submissions opens 6/18
 - 1) Considering a submission for this conference
 - 2) No specific topics were identified during the meeting

Handbook - Handbook Sub-Committee Chair, Ralph Kittler

1. Missed this topic

Research - Research Sub-Committee Chair, Alois Malik

1. New Updated WS 1566 - “Equations to Estimate Evaporation Rates from Wetted Surfaces”
 - a. Waiting for funds to release for bidding
 - b. ASHRAE funds are down and so moving projects forward slowly as able
2. Co-sponsorship with TC 2.2 on Determination of Latent Loads for Crops
 - a. Unknown status but has been seen by RAC
3. Test standards for liquid dessicants proposed at Summer meeting
 - a. No update – Peter L. to investigate further
 - b. Alignment with standard 198 helps



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4. Benefits of pressurizing residential homes discusses at summer meeting
 - a. No update – Peter L.
 - b. Is this a better fit for another TC (Residential buildings, TC 5.5, or standard 62.1)?

Standards - Standards Sub-Committee Chair, Craig Burg

1. ASHRAE Standard 190-2013, Method of test for Rating Indoor Pool Dehumidifiers
 - a. This was published in 2020
 - b. European standard VDI 2089 is used and should we consider harmonizing since manufacturers are labeling with both now
2. ASHRAE Standard 198-2013, Method of Test for Rating DX-Dedicated Outdoor Air Systems for Moisture Removal Capacity and Moisture Removal Efficiency
 - a. AHRI 920 was published recently
 - b. Mike Stem to go through first pass of editing
 - c. Craig Burg to schedule follow-up meetings here in next several weeks
3. ASHRAE Standard 174-2018, Method of Test for Rating Desiccant-Based Dehumidification Equipment
 - a. To be reaffirmed, revised, or withdrawn by 8/30/21
 - b. Craig is looking for input from former TC 8.12 on the standard and plan
 - c. Peter L. to investigate further
 - d. Initial recommendation is to reaffirm and address in next revision
 - 1) Final determination at Summer meetings to meet deadline
4. AHRI performance standard for wrap-around heat pipes is on hold
 - a. No ASHRAE method of test standard required until AHRI progresses further

TC Web Site – TC Webmaster, Gayle Davis

1. Updated with minutes. Documents, etc.

Other Business

1. None discussed

Motion to Adjourn



**TC 8.10 - Mechanical and Desiccant Dehumidification
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Main Committee DRAFT Meeting Minutes for ASHRAE
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Date: Tuesday – February 2, 2021

Place: Zoom: <https://ashrae-org.zoom.us/j/99457572011?pwd=eERqOUo3K1NLMENU3Z1QklpUFdPUT09>

Time: TC 8.10 Main Committee Meetings – 1:00 PM to 3:00 PM EDT

Note: TC 8.10 Sub-Committee Meetings – Monday, February 1, 2021 2:15 – 4:15 PM EDT

Items: Related to TC 8.10:

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Call to order & Introductions: Chair, David Baird

1. Meeting called to order at 1:02 pm
2. Brief introductions
 - a. David Baird, Kevin Muldoon, Craig Burg, Onieluan Tam, Alkis T., Peter Luttk, Chris Soh, Darrell Sandlin, Kevin McFadden, John Murphy, John Bade, Ralph Kittler, Kyle Bergeron, Alois Malik, Kyle Swenson, Jim Piscopo, Carl Jones, Gayle Davis, James Battaglia, Titu Doctor, Bob Barrett, Kevin Mercer, John Hearn,

ASHRAE Code of Ethics, Chair, David Baird

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Determination of Quorum - Chair, David Baird

1. Majority of voting members must be present
 - a. 9 of 11 VM present - Quorum

Membership/Roster: Webmaster/Membership Subcommittee Chair, Gayle Davis

1. Leadership: 11 voting, 1 non-voting
2. 87 total members, 70 corresponding (18 provisional), Miscellaneous Others: 5
 - a. To become a provisional corresponding member - please sign-up online



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- b. Chair has discretion to convert a provisional corresponding member to a corresponding member before 2 years

Request for Approval of Summer 2020 Minutes – Secretary, Kevin Muldoon

- 1. No modifications
- 2. Motion: Approve minutes as posted on TC 8.10 website
 - a. Gayle Davis, Craig Burg
 - b. Approved 9-0-0

Request for Any Additions to Current Agenda

- 1. None

Section 8 Meeting Report - Chair, David Baird, Vice-Chair, Peter Luttk

- 1. Discussion of items from meeting to occur
- 2. When “Awards Nominations” are due
- 3. Deadlines for programs discussed and addressed in Programs report
- 4. TC opportunities for tracks

Liaison Reports:

Section Head	Kevin Mercer
TAC Chair	Dustin Meredith
Handbook	
Research	Christopher Seeton
Standard	Srinivas Katipamula
Staff	Steven Hammerling

As Liaisons might not be available at the beginning of the meeting, we will provide them the opportunity to address as they enter following the item on the agenda.

- 1. Section Head – Kevin Mercer
 - a. Virtual option available for summer meeting in Phoenix, AZ.
 - b. Keep Section Chair up to date on issues with TC merger
- 2. Research Chair
 - a. Items?

Subcommittee Reports:

Programs – Program Sub-Committee Chair, Onieluan (Tam) Tamunobere

- 1. Summarize and update TC on seminar / program proposal for the Virtual meeting.



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- b. Seminar 54 - From Research to Reality: Advances in Liquid Desiccant Technology
(from old TC 8.12, co-sponsored by old TC 8.10)
- c. Seminar 31 TC 8.10 co sponsoring
2. Review proposals for future meetings

Handbook - Handbook Sub-Committee Chair, Ralph Kittler

1. 2020 Applications handbook includes revised chapter 25 (Mechanical Dehumidifiers and related components)
2. DOAS chapter included in hardcopy handbook (Chapter 51/52)
3. John Murphy reviser for DOAS chapter (51/52)
4. Ralph Kittler reviser for Chapter 25
 - a. Alkis T., Darrell S. offered to assist
5. Need reviser for Chapter 24
 - a. Peter L. to assist
6. Use Basecamp to transfer and revision control handbook updates and comments.

Research - Research Sub-Committee Chair, Alois Malik

1. RTAR 1566 - “Equations to Estimate Evaporation Rates from Wetted Surfaces”
 - a. Waiting on funding from ASHRAE
2. Approved cosponsoring RTAR 1901 with TC 2.2
 - a. Looking for work statement with RTAR approval
3. Some suggestions
 - a. Research about pressurizing homes with OA to prevent/reduce contamination
 - b. Update DOAS Design Guide and determine update process
 - 1) John M., Kevin M.

Standards - Standards Sub-Committee Chair, Craig Burg

1. ASHRAE Standard 190-2020, Method of test for Rating Indoor Pool Dehumidifiers
 - a. Approved in 2020 and published
2. ASHRAE Standard 198-2013, Method of Test for Rating DX-Dedicated Outdoor Air Systems for Moisture Removal Capacity and Moisture Removal Efficiency
 - a. AHRI 920 companion standard 2020 version approved
 - b. 198 can proceed
 - c. Craig B. to schedule review meeting
 - d. Mike Stem leading 198 edits
3. ASHRAE Standard 174-2018, Method of Test for Rating Desiccant-Based Dehumidification Equipment
 - a. To be reaffirmed, revised, or withdrawn by 8/30/21
 - b. Most likely going to be reaffirmed in SPC.
 - c. Peter L. to reach out to Eric Kozubal for comment on ASHRAE 174-2018



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TC Web Site – TC Webmaster, Gayle Davis

1. Updated with minutes.
2. Presentations from Orlando to be uploaded soon.

Other Business

1. Contact AHRI about CEA equipment ratings.
2. Discussion about working with AHRI and other groups about comments regarding separating 920 and 340/360 rated units at 80% OA.

Motion to Adjourn – 2:30PM

1. Ralph Kittler, Gayle Davis