

ASHRAE TC 9.7
Educational Facilities
Full Committee Agenda
2024 ASHRAE Annual Meeting

Saturday 6/23/2024, 1:00 - 3:00 PM EDT

Location: JW Marriott, 301 (3)

Meeting Format: Hybrid

Remote Access: <https://events.rdmobile.com/Sessions/Details/2303410>

1. Call to order: **Metzger**

2. Review Scope (Update Scope)

TC 9.7 is concerned with the application of ventilating, air-conditioning, refrigeration, life safety, and energy conservation systems to educational (secondary school, college) facilities.

3. ASHRAE Code of Ethics Commitment (Update Value Statement)

Metzger

"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- quorum established

SECRETARY

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

Corey Metzger (Chair)	6/30/2025	Itzhak Maor (Handbook)	Never
Catherine Tinkler (Vice-Chair)	6/30/2027	Keith Hammelman	6/30/2024
Mark Long (Secretary)	6/30/2025	John Gibbemeyer	6/30/2026
Chris Ruch	6/30/2024	Bruce Lindsay (Non Voting)	
Raj Setty	6/30/2024		
Tom Jacknisky (Research)	6/30/2025	5 of 8 voting members present	

5. Agenda additions

All

6. Chair's Report

Metzger

a. Chair's Goals

i. Welcome to Guests

1. Sign in (*Physical Sign IN Sheet and Record of online attendance*)

ii. TC Scope Review

1. Adding Daycare

iii. Long-term Committee Planning

1. Interest in becoming a voting member. We will need commitments for attendance

**iv. Updates to TC 9.7 Document - Design Guidance for Educational Facilities:
Priorities for Advanced Indoor Air Quality**

1. See Old Business

b. Announcements and Highlights from TC Chairs Breakfast Meeting

- i. Tomorrow (6/23)
- ii. Corey will add notes but Joy has covered all subjects

7. Liaison reports

Liaisons

a. Section Head

Joy

i. Basecamp Resources

1. Reminders
2. TAC Breakfast Reminder
3. Updated Functional Group Reference Manual
4. Turn in Functional Group Activity Form (Due Tuesday)
5. Next Round of Rooster updates after Winter Meeting
 - Start planning now
 - Changes will happen after Winter meeting but take effect July 1
6. QR Code for Sign In
7. Welcome YEA Members

b. RAC

Seeton

8. Approval of minutes from Virtual Summer Meeting - **Approved**

CHAIR

- Motion to Approve Minutes – Chris
- Second Catherine – Approved
- All in Approval

9. Membership/Roster

Long

Starting August 1st: (All voting members and/or subcommittee chairs)

- 2024/2025 Year
- Corey will complete at end of year

Name	Role	Voting
Corey Metzger	Chair	Yes
Catherine Tinkler	Vice Chair	Yes
Mark Long	Secretary	Yes
Tom Jacknisky	Research Chair	Yes
David Handwork	Standards Chair	Yes
Itzhak Maor	Handbook Chair	Yes
Catherine Tinkler	Program Chair	
Chris Ruch	Webmaster	Yes

Name	Role	Voting
Raj Setty (role off at end of year)		Yes
Keith Hammelman (role off at end of year)		Yes
John Gibbemeyer		No
Bruce Lindsey		No

Voting Members After 6/23/24

1. Itzhak Maor
2. Mark Long
3. Catherine Tinkler
4. Corey Metzger
5. Chris Ruch
6. Tom Jacknisky (roll off in 2025)
7. Dexon (New)
8. Heather S (New)
9. Bruce (New)

10. Subcommittee reports

a. Programs

Tinkler

i. Program at this conference

1. Panel 2: Back to School: Improving School Building HVAC and IAQ Performance- June 23 3:15-4:15
2. Workshop 5: Buzzwords and Bias: Meeting in the Middle Advances the Whole- June 26 9:45-10:45

ii. Tracks Released for next meeting - Need to submit by August 2nd

1. Prior Discussion

- UC Davis – Next Winter - Need to submit by August 2nd
 - i. Chris Ruch to reach out to Theresea Pistochini (UC Davis)
- Bruce Lindsey
 - i. Half Day Program,
 1. Inflation Reduction Act
 2. Geothermal
 3. interested parties deed help with understanding
 - a. Tax Credits
 - i. 179D
 - ii. Engineering Firms can get but most are unaware – Need 25% reduction to qualify. Based on ASHRAE 91 2007
 - ii. Corey Metzger - Commit to being done with 3.0 Of IAQ document. This would then be run as a
 1. 3.0 Document - July (7/19) Monthly Meeting – Focus on a Final Review of 3.0 Document
 2. Guideline 42
 3. 241

iii. Rebuild – Track 6 - Evan Connell

1. Rebuilding Mechanical Rooms
- iv. Rebuild – Track 6 – Heather Schopplein
 1. UC San Diego
- v. Tinkler – Out of Compliance – Track 7
 1. BEPS Compliance Strategies
 2. Existing Building Stock- Phil Arnold
 - a. No OSA
 - b. Heating Only
- vi. Early Childhood Education
 1. What 62.1 has done on this?
 2. WHO publication on this subject

b. Research

Jacknisky

- i. No Updates
- ii. Previous Discussion
 1. Humidity RTAR- there was discussion on low humidity research. Does anyone know more about it or have any updates.
 - There could ne one on humidity calculations as there are conflicting calculations
 2. Pathogen & Airborne Contaminants
 3. 9.8 and 8.3 are working on contradicting Humidity - Heather Schopplein
 4. Room Air Distribution
 - Currently ETF and 241 are based on a well-mixed space
 - Displacement / Overhead
 - Considerations for Dilution - Phil Arnold
 - Placement of HEPA and In-Room Mitigation - Phil Arnold
 5. Tom J to put out a draft to the group through Basecamp
 - Do we have previous RTAR language?
 - **August (8/16) Meeting – Focus on RTAR**
 - i. Phil Arnold will be unable to attend meeting but would like to assist with what the group comes up with.

c. Handbook

Maor

- i. Discussion on daycare addition. Itzhak Maor (Not Present) has been looking into how Child Care facilities are focused on.
 1. What is the class of air for transfer (62.1 considering)?
 2. ASHRAE 62.1 (Educational Facilities) does differentiate between 5 and up and under
 - Class of Air
 - Change in Occupancy Densities
 3. TC Roles is different than a standard
 4. Discussion
 - Child Care is a unique group

- i. This is so different that it may take us in too many directions
- This is a needed subject to address
- Concern of 9.7 Bandwidth
- If not us then who would do it?
 - i. Do states minimum standards
- Do we have Subject Matter Experts?
- Is there a difference between a 3 year old and 5 year old (physically)?
 - i. Breathing air zones
 - ii. Pediatric Infectious disease should be explored in existing research
 - 1. Ventilation, distribution, and their affect on disease transmission
- Preschool and Daycare are different types of facilities
 - i. Early Childhood Education Facilities
 - ii. "PreSchool" is a school
 - iii. "Day Care" is not a school
 - 1. Should Day Care be related to Homes (ASHRAE 2.3)
 - 2. Broad range of facility types
- How broad would we go?
 - i. UV for cleaning surfaces
 - 1. Would this be outside our scope
- Corey M Points
 - i. Should use term "Early Childhood Education"
 - 1. We will not address in-home daycare centers
 - ii. There is a recognized problem of inadequate ventilation in these facilities
 - iii. Bandwidth - This does need to be part of our scope but we can target the 2027 Handbook
- This subject should be tabled until Itzak Maor is available (September Meeting to Focus on this)

1. Purpose:
TC 9.7 needs to decide if Daycare can be considered as an Educational Facility. If the TC decides that Daycare is an Educational Facility it will be included in the 2027 ASHRAE Handbook.
2. Why Daycare was NOT included in the scope of TC 9.7 (and the 2023 Handbook Chapter)
The group age 0 to 3 years was not clearly defined as an Educational Facility therefore it was decided to cover the age of 3 years and above and discuss the topic in future meeting (refer to Appendix A)
3. ASHRAE, International Mechanical Code (IMC) and International Building Code (IBC) references to Daycare
There is no reference to Daycare in the 2023 ASHRAE Handbook, suggesting that there is no entity within ASHRAE responsible to this age group (0 to 3 years). There is however a reference (since 2001 addendum n

) to Daycare in ASHRAE Standard 62.1 for ages 0 to 4 years(the addition of this occupancy shown in detail in Appendix B). A request to the SSPC 62.1 chair to investigate this issue(how the age of 4 was determined and also the ventilation criteria) was submitted. The IMC 2021 also references Daycare ventilation which is based on ASHRAE 62.1. The IBC 2021 references Daycare on the Occupancy classifications (refer to appendix A)

4. Daycare Centers Descriptions , definitions Types:

4.1 There are many definitions/descriptions of Daycare Centers/Facilities and Early Childhood (refer to Appendix C)

4.2 There are many types of Daycare facilities (refer to Appendix D)

5. Daycare facilities age groups

Daycare/Childcare facilities age groups are typically the following:

5.1 Infants (0 to 12 months)

5.2 Toddlers (1 to 3 years), several references refines it to younger and older toddlers.

5.3 Preschoolers (3 to 5 years)

Examples of children age groups are in Appendix E

6. Daycare center Educational activities (for 0 to 3 years)

There are references and Daycare centers for this age groups with educational curriculums suggesting that these facilities can be considered as educational facilities. Refer to appendix F

7. Recommendations

1. **To approve adding children 0 to 3 years (Infants and Toddlers) to the scope of TC 9.7 (and updating the Handbook chapter accordingly)**

2. **The scope will be only for Commercial (or traditional) type Childcare facilities. In Home, Nanny, etc.) will not be included.**

The following are the reasons:

7.1 ASHRAE doesn't cover this age group (as far as application and TC's) ,

7.2 Although the IBC 2021 considers facilities for children older than 2 ½ years as Educational occupancy, there are circumstances where facilities for children younger than 2 ½ can be considered as an Educational occupancy.

7.3 Many Daycare centers provide services for children from birth until school age (6 years and older) in one facility . Since currently TC 9.7 (and the handbook chapter) already cover ages 3 years and above (which are Daycare occupancies) , it is logical to extend the scope to the 0 to 3 years age group.

ii. 2027 HVAC Applications Handbook, Chapter 8 (Educational Facilities) Schedule
– Chapter revisions scheduled between July 2024 and January 2026

		2023			2024			2025			2026			2027		
		Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct
Review	Current HB received (June 1)															
	TC selects HB subcom and chair															
Revise	Review current HB for changes															
	Decide extent of and outline revisions															
Approve	Seek and appoint reviser(s)															
	Revise chapter(s)															
Edit & Produce	Send revised chapter to TC for review															
	TC approves chapter															
	Send chapter to HBC liaison															
	HQ sends chpt. proof to TC contact															
	HB sent to printer (April 1)															
	HB mailed (May 15)															

HBC = Society Handbook Committee
HB = Handbook volume
HQ = ASHRAE Headquarters editorial staff

Note: This figure is based on earlier years “typical” schedule (it is not an ASHRAE official)

1. Revision starts on July 2024 and Ends (including TC approval) on July 31, 2026
2. July-August 2026 submission to ASHRAE for publication.
3. 2027 HB main topics
 - Addition of Daycare (ages 0-3) Facilities section. Material was sent to the TC members for discussion and potential approval of this addition. If approved, the title of the current occupancy in the chapter ("Preschool") which covers age 3 to 5 years, will be changed and called "Daycare Centers" (and will include Infants, Toddlers and Preschoolers) to cover ages 0 to 5 years . New information (after more research) will be added to the chapter.
 - Continue with the Educational Facilities for students with Disabilities section.

iii. Updates of the 2023 Chapter (start on July 2025 to May 2026)

d. Web site

Ruch

- i. Need to get Rooster cleaned up and match to Basecamp
- ii. Scope needs to be updated

11. Old Business

a. TC Scope Review

- i. Update – Add updated language

b. Review Design Guidance for Educational Facilities Document

- i. Meeting 3 Hours on 7/12 – Corey to send out
- ii. 2 Hour Meeting on 7/19 – Corey to Send out

12. New Business

a. Rooster Update

13. Adjourn (2:58pm) -Motion by Chris, Cathrine Second