

TC 9.1 Large Building Air-Conditioning Systems

Tuesday, February 11 1:00 PM – 3:00 PM CST

Sand Lake

Meeting called to order at 1:02pm by Chair

Name	Position	Voting Status	Attendance
Phillip Trafton	Chair	Voting	Y
Ken Warren	Vice Chair	Voting	Y
Madison Schultz	Secretary	Non-voting	Y
R Lee Millies	Standards Subcommittee Chair (V)	Voting	Y
Zehui Hong	Research Subcommittee Chair	Non-voting	N
Jay Eldridge	Handbook Subcommittee Chair	Voting	Y
Dennis Wessel	Program Subcommittee Chair (V)	Non-voting	N
Elizabeth Primeau	Webmaster	Non-voting	Y
Kelley Cramm	Member	Voting	N
Mark Pavol	Member	Voting	Y
Dennis Wessel	Member	Voting	N

Additional Attendees:

Danny McGrail, Douglas Cochrane, Mark Fly, Jason Jones, Steven Gerazounis

Value Statement

In ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and shall avoid all real or perceived conflicts of interest. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We celebrate diverse and inclusive communities, understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and the communities our Society serves. We respect and welcome all.

Scope

TC 9.1 is concerned with the general design concepts of the HVAC systems that are utilized for the conditioning of large buildings, including the integration of components into centralized and decentralized systems.

1. Approval of previous minutes

- a. Motion: Mark Pavol Second: Jay Eldridge. Vote: 4-0-0 to approve

2. TAC Update (Joy)

- a. Roster updates are due March 3 and go into effect after Phoenix
- b. Minimum 6 voting members
- c. Provisional Corresponding Members might need to be changed to Corresponding members
- d. This is a good time to email all committee members
- e. Feb 26 is Phoenix programs deadline
- f. TAC asks for the Activity Form after all committee meetings. Might be automating this process in the future if funding is available. Add any ideas to the Notes section of the existing form.
- g. Might be eliminating Technical Papers from the Conference. So would be Conference Papers only.

3. Sub-Committee Reports

- a. Handbook (Jay)
 - i. Looking for editors for 2028 edition. Need 2 editors per chapter minimum.
 - ii. Chapter 1-5 of Fundamentals Handbook
 - iii. Refer attached schedule
 - iv. There is an online portal to facilitate collaboration. Jay will give access to editors.
- b. Research (Zehui)
 - i. There is no current research.
- c. Standards (Lee)
 - i. Guideline 16 needs to be reviewed since this TC is cognizant of it.
 - 1. Motion: Reaffirm Guideline 16 2022 version. Vote: 4-0-0 CNV to approve.
- d. Programs (Dennis by Mark Fly)
 - i. Dec 15 committee meeting
 - ii. Dennis is going to resubmit on the prohibited evaporative cooling topic
 - iii. Dennis is going to resubmit on the right sizing topic
 - iv. Other topics were discussed
 - v. See attached minutes
- e. Honors and Awards (Mark Fly)
 - i. No report
- f. Website (Liz)
 - i. Approved 2024 Annual Conference (Indianapolis) minutes are on website
 - ii. Next meeting in Phoenix is on the website

4. Liaison Reports

- a. TC 4.3
 - i. No updates
- b. TC 5.1
 - i. No updates
- c. TC 5.7 (Mark Pavol)

- i. Concerns about water use in the western US. Putting together a seminar on water use and water quality for the Phoenix conference.
- d. TC 7.9
 - i. No updates
- e. TC 9.8
 - i. No updates
- f. TC 9.9 (Mark Pavol)
 - i. Over 500 participants with about 200 present at meetings. Data centers are increasing due to AI. Liquid cooling is trending. Also discussed redundancy and resiliency. Trying to keep up to date with ASHRAE Standard 90.4.
- g. TC 9.10
 - i. Meets later today
- h. TC 9.12 (Mark Fly)
 - i. Several programs also were rejected. No research. Working on Handbook chapters. Working on programs for Las Vegas in Winter 2026.
- i. Standard 15
 - i. No updates
- j. CEBD (Doug)
 - i. CEBD is working with outside organizations and reports directly to the BOD. There is a new certification program for CDP. 64 people have passed so far with a 62% pass rate. Study guide will be out soon. The Foundation is funding a video to advertise the certification.
 - ii. CEBD is setting the strategic vision for ASHRAE for decarbonization.
 - iii. Guides are released. DOE helped fund a new guide due early 2026 (unknown if federal funding will be affected). If funding remains, the guides will be free to download.
 - iv. Next step is to develop courses. Outside organizations have been hired to develop this. TEC is involved in this process.
 - v. \$1.8M has been allocated, \$1.2M is still available.
 - vi. Working with Tech Council to fund research into topics:
 1. Equipment service life
 2. Research on refrigerant emission data
 3. Embedded carbon
 4. Flexible international building code framework
 5. Whole life carbon gap analysis
 6. Whole life carbon calculation guide
 7. Benchmarking data research for whole building MEP
 8. Residential retrofits (with RBC and 90.2)
 9. Supermarket industry
 10. AI data centers
 11. A3 refrigerant
 12. Fire Marshalls
 - vii. Membership survey has been done. Another strategic session in May.
- k. Planning Committee (Madison)
 - i. New strategic plans starts July 1. It is available online. All Committees and Councils, Regions, and Chapters are encouraged to align their MBOs to the strategic plan.

5. Old Business

6. New Business

- a. Updates from the TC Chair breakfast
 - i. There is a new YEA mentorship program during Society meetings
 - ii. Tech Council is pushing Decarb and looking for more research
 - iii. TEC is working on a 1-hour training for new refrigerants. Should be completed by June 2025.
 - iv. There were over 200 submissions for this conference. 75 were accepted. 3 of the rejected submissions were from TC 9.1.
 - v. GAC needs help from TCs to connect ASHRAE to policy makers. Working to educate on Climate Change and Decarbonization.
 - vi. Global Technical Interactions Committee is working to gather data internationally.
 1. TC 8.6 on refrigeration safety may have an impact on this TC.
 2. Looking for Subject Matter Experts to help with outreach events. Apply online.
 - vii. COF is for people that have made substantial impact to the industry. Dennis has volunteered to help with Fellow applications.
- b. Will need a hybrid meeting setup for the Phoenix meeting.
- c. 3 voting members roll off in June so need to replace them.
 - i. Mark Pavol – will go to Corresponding
 - ii. Ken Warren – will go to Corresponding
 - iii. Phil Trafton – will do another year
 - iv. Madison Schultz to be Voting Member
 - v. Mark Fly to be Voting Member

7. **Next Meeting:** Tuesday 24 June 2025, 1-3pm in Phoenix, AZ

8. **Adjournment** by Chair at 3:00pm