

DRAFT MEETING MINUTES TC 9.01, Large Building Air Conditioning Systems

Tuesday, June 28, 2022 1:00-2:49PM

Subcommittees & Related Meetings:

TC 9.1 Program/Handbook/Research Monday 6/28/2022 12:30-1:00

- Subcommittee attendance: Kelley Cramm, Liz Primeau and Mark Fly;
- Noted that we need subcommittee chairs for Research, and Program;

ATTENDANCE –

- In person: **Mark Fly** (Chair), Kelley Cramm, Liz Primeau (Webmaster), **Lee Millies, Jr** (voting member), **Doug Cochrane** (Vice Chair), Dennis Wessel, Brad Cochran (Section Head), Christopher Williams (guest), Charlie Henck, Cheng Wee Leong (guest, incoming DRC R13) John Dahar (guest)
- Virtual: Barry Bridges, **John Vucci** (voting member), **Mark Pavol** (voting member), Chelsea Moussouni, Songyang Hu from University Health Network in Toronto (guest), Al Blalock

MEETING AGENDA

Call to Order by Mark at 1:09 pm

- 1) **Welcome / Introductions** - everyone introduced themselves
- 2) **Administrative**
 - a) **ASHRAE Code of Ethics** - 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. [https://www.ashrae.org/aboutashrae/ashrae-code-of-ethics.](https://www.ashrae.org/aboutashrae/ashrae-code-of-ethics))
 - b) **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.
- 3) **Determination of Quorum**
 - a) Voting Members = 4+1, we have Quorum;
- 4) **Review and Approve Minutes from 2022 Winter Meeting - motion by Lee Millies Jr to approve Winter 2022 minutes second by Doug Cochrane; Passed Unanimously;**
- 5) **Agenda Comments and Updates;** no changes;
- 6) **Chair Comments and Section 9 Report;** Doug went to section breakfast for Mark Fly. Report from Doug: (took some pictures, there was no handout)
 - a) Decarb task force: 2022 objectives from decarb task force (Kent Peterson) are to develop society budget for decarb projects (1.2M was approved), expedite delivery of technical resources for designers to use, provide training and educational materials; decarb goals are accomplished in timeline (1 year only); work within ASHRAE, they want TC liaisons to the task force, Doug Cochrane to volunteer;
 - b) 2022-23 product expected from the decarb task force:
 - i) Building Decarbonization Retrofit Guide

- ii) Heat Pump Application and Operation Guide
 - iii) Healthcare Decarbonization Design Guide
 - iv) Building Performance Standard Resource Technical Guide
 - v) Guide for Designing and Operating Grid-Interactive Building for Decarbonization
 - vi) Building Decarbonization Whole Life Design Guide
- c) TAC general update:
- i) They want to improve communication between “functional groups”, outlining changes in MOPs. There is now two MOPs, one for FGs and one for MTGs. They focus on balance on voting and leadership (financial interest), they recommend you do subcommittee virtually, and they add a requirement that the Chair, Vice Chair and all voting members must be ASHRAE members; MTG is getting sped up to complete the specific task;
 - ii) **Activity form is due by the end of the day, Mark Fly has it and will be completed;** Results of the activity reports will be shared on Basecamp, trends will be seen;
 - iii) 14 hours of leadership training available online;
 - iv) TAC mission is to help the group reach excellence through the vision of “a positive and productive volunteer experience for all” with the values of “advocacy and simplicity”
 - v) For any questions about the new MOPs, reach out to asktac@ashrae.net;
 - vi) Currently we have 18 provisional members, getting lots of interest, we need to reach out and get them to participate; **ACTION ITEM for Mark Fly: reach out and make them full members of this TC;**

7) ASHRAE Liaison Reports:

- a. Society (e.g., TAC, Standards, Research, Handbook)
 - i. No subcommittee chairs present, no update provided
 - ii. We need a Program Sub. Chair and a Research Sub. Chair; **Dennis Wessel volunteered for Program Subcommittee Chair;**
 - iii. Kelly to work with Charlie Henck on Mixing Box testing method; Mark Pavol to assist. Kelly and Mark’s paper was presented in Vegas Winter 2022, which validated the article that Kelly had done;
 - iv. Brad Cochran, section head, is present to provide liaison; Doug speak to Ventilation Conference, looking for input for next ventilation conference based on industrial components; Brad says they are looking for more people to get involved in ventilation conference;

8) TC Subcommittee Reports:

- b. Handbook – Eldridge – No update.
- c. Programs – New Chair Needed – **Found Dennis Wessel;**
- d. Research – New Chair Needed – No update.
- e. Pavol would do RTAR on standards for mixing boxes if needed but needs assistance. A lot of discussion on no standard or method of test for mixing. **See 7.a.iii; no RTAR will be completed;**
- f. Standards – Henck – We have one under our TC for mixing boxes;
- g. Honors and awards – Duda; **ACTION ITEM Mark fly to see if Steve Duda is still interested in this role;**
- h. Website – Primeau – No update.

9) TC/PC Liaison Reports

- i. TC 4.03 – Ventilation & Filtration (S. Duda) – No update.
- j. SSPC-300 Commissioning Process for Building & Systems (Blalock) – No update.
- k. TC 5.1 – Fans (Eldridge/Fly) – No update.
- l. TC 5.06 – Control & Smoke – No update.
- m. TC 5.7 – Evaporative Cooling – No update.
- n. TC 7.01 Integrated Building Design – No update.
- o. TC 7.09 – Building Commissioning (Blalock) – No update.
- p. TC 8.07 – Variable Refrigerant Flow – No update.
- q. TC 9.08 – Specialized Building Applications (Molnar) – No update.
- r. TC 9.09 – Mission Critical - (Mark Pavol) : select computing applications, liquid cooling is coming back from the 60s, especially for processing and simulation systems. Percentage is raising. Thermal Guidelines for servers will be updated including changes to gaseous contaminations, if you have high concentration envelope shrinks, low concentration the envelope opens;
- s. TC 9.10 – Laboratory Systems (Cramm/Henck) – No update. They have not met yet.
- t. TC 9.12 – Tall Buildings (Wessel/Fly) – Discussion of design guide; More programs forward for Chicago in 2024;
- u. SSPC 15 Mechanical Refrigeration Safety (Vucci) – John did not attend the meeting, he will be rolling off that committee. Standard 15.2 has been published for residential applications;
- v. SSPC 62 Ventilation (Trafton) – No update.
- w. SPC 188 Legionella in HVAC – No update.
- x. ~~MTG RAC – Guide for Maintenance of Chiller plants (Vucci) - Removed.~~

10) Old Business

- y. Publications Request we be cognizant revision of “HVAC Simplified” - subcommittee Cramm-chair, Henck.
 - i. Limited success in this. Dennis Wessel, Howie finished theirs. Bottom line: Kelly needs more people; Wants 3 more people; Sections left: 1. introduction, 2. motors lighting and controls; Dennis to do 10 pages in chapter 4; Done in the authoring portal; Mark Fly to take air distribution (chapter 9); **ACTION ITEM for Kelly to send a reminder of all their assignments;**

11) New Business

- z. General discussion from John Vucci: Adiabatic humidification discussion; needs very clean water; higher first cost, needs a reverse osmosis system. Will need focused maintenance contract; Mark Pavol: with the RO systems you must reject a lot of water, lots of waste, with decarbonization these systems can save energy at the cost of water usage; Vegas has banned evap cooling on new systems because they don't have the water. Need to find a balance here. They can generate electricity, but not water; Complex issue with tradeoffs.

aa.

bb.

12) Next Meeting – Atlanta, GA - February 7, 2023 - face to face with remote hybrid component

13) For Good & Well Being

14) Adjourn at 2:49PM