

DRAFT MEETING MINUTES TC 9.01, Large Building Air Conditioning Systems

Tuesday, February 7, 2023 1:00-3:00

ATTENDANCE –

- In person: **Mark Fly** (Chair), **Doug Cochran** (Vice Chair), **Phil Trafton** (Secretary), John Vucci (CM), Jay Eldridge (VM) Kelley Cramm (VM), Lee Millies (CM), John Kuempel (CM), Madison Schultz (CM), Liz Primeau (Webmaster), Scott Delo (Guest), Zehni Hong (CM), Brad Cochran (Section 9 Section head), Dennis Wessel (CM), Mehdi Jalayerian (CM), Kenn Warren (VM), Charlie Henk (CM)
- Virtual: **John Vucci** (voting member), **Mark Pavel** (voting member), AB Blalock

MEETING AGENDA

Call to Order by Mark at 1:00 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>.)
 - 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. First 5 chapters in Systems Handbook.
- 3) **Determination of Quorum**
 - a) Voting Members = 7, we have Quorum.
- 4) **Review and Approve Minutes from 2022 Summer Meeting - All in favor Passed Unanimously;**
- 5) **Agenda Comments and Updates;** no changes;
- 6) **Chair Comments and Section 9 Report;** Phil went to section breakfast for Mark Fly. Brian Cochran, Section Head came in and gave Report.
 - a) Communities: This is a new program but is currently still undefined, but, Brian will be contacting the Chairs between now and the next meeting to discuss and create a community as it develops.
 - b) New TG-9: 9.space for how they handle systems for new living in space such as moon/mars.
 - c) Decarbonization Movements:
 - i) Building Decarbonization Retrofit Guide
 - ii) Heat Pump Application and Operation Guide
 - iii) Healthcare Decarbonization Design Guide
 - iv) Building Performance Standard Resource Technical Guide (Now out)
 - v) Guide for Designing and Operating Grid-Interactive Building for Decarbonization
 - vi) Building Decarbonization Whole Life Design Guide

Draft Minutes Winter 2023 Meeting

- d) Large discussion held regarding corresponding and provisional members and their inclusion in the roster, meetings, etc.
- e) Doug can be reached at SH9@ASHRAE.net
- 7) Members were discussed and due to our current Vice Chair being moved up to DAL, Phil was asked to move forward to Chair of committee, Ken Warren will be Vice Chair and Madison will be Secretary.
- 8) Members rolling off include Mark Fly. Rolling on would be Dennis Wessel and Lee Millies.
- 9) **ASHRAE Liaison Reports:**
 - a. Society (e.g., TAC, Standards, Research, Handbook) Only TAC society chair was present.
- 10) **TC Subcommittee Reports**
 - b. John Kuempel is Research Sub. Chair; Mehdi volunteered to be a helper, and the committee suggested that She become Research subcommittee chair.
 - c. Dennis Wessel volunteered for research subcommittee chair at the last meeting and reported that we have no upcoming research projects at this time.
 - d. Handbook was discussed and Chapters were reassigned with report of revisers and reviewers coming from Jay soon.
 - e. Kelly reported that a standard needs to be written for mixing boxes.
 - f. Lee Millies was elected Standards Committee Chair.
 - h. Steve Duda was honors and awards subcommittee chair, but is no longer active. No new chair was proposed at this time. It was noted that Distinguished and Exceptional service have to be applied for.
 - i. Website was reported on by Liz and she indicated she was missing some of the 2020 minutes.
 - j. Programs were discussed for the upcoming meetings. See attached report. In addition, a request was made for a student program for which Kelly Cram and Phil Trafton volunteered as speakers with Phil presenting on HVAC systems utilized for multi-family/Mixed use projects both low and high rise and both low income and market rate. It appeared that this program would be a Sunday morning program. (Chicago).
- 11) **TC/PC Liaison Reports**
 - a. SSPC-300 Commissioning Process for Building & Systems (Blalock) – No update.
 - b. TC 5.1 – Fans (Eldridge/Fly) – committee needs something other than manufacturers on it.

Draft Minutes Winter 2023 Meeting

- c. TC 5.7 – Evaporative Cooling – Clark County Nevada has banned Evapco cooling and has the committee concerned.
- d. TC 7.01 Integrated Building Design – No update. TC 7.09 – Building Commissioning (Blalock) – Jerry Kettler published a document on commissioning procedures outside of ASHRAE and is on base amp for the TC. Most commissioning standards were
- e. TC 9.08 – Specialized Building Applications (Molnar) – No update.
- f. TC 9.09 – Mission Critical - (Mark Pavol) : No update.
- g. TC 9.10 – Laboratory Systems (Cramm/Henck) – No update. They have not met yet.
- h. TC 9.12 – Tall Buildings (Wessel/Fly) – More programs forward for Chicago in 2024;
- i. SSPC 15 Mechanical Refrigeration Safety (Vucci) – no real update
- j. SSPC 62 Ventilation (Trafton) – No update.
- k. SPC 188 Legionella in HVAC – No update.

12) Old Business

13) New Business

14) Next Meeting – Tampa - June , 2023 - face to face with remote hybrid component

15) For Good & Well Being

16) Adjourn at 2:55PM

Draft Minutes Winter 2023 Meeting

January 4, 2023

TC-9.1 (Large Building Air Conditioning Systems)

Minutes

Subject: Program Subcommittee Meeting

Participants: Mark Fly, Kelley Cramm, Phil Trafton, Ken Warren, Mark Pavol, Elizabeth Primeau, Doug Cochrane, Russ Levitt, Hans Grabau, John Vucci, Howard McKew, Dennis Wessel

Dates for **Summer 2023 in Tampa** are:

- **Friday, January 6, 2023** | Website opens for Seminar, Workshop, Panel, Debates and Forums
- **Friday, February 24, 2023** | Technical Paper Final Accept/Reject Notifications
- **Monday, February 27, 2023** | Debate, Panel, Seminar Form, Workshop Proposals Due
- **Wednesday, March 29, 2023** | Extended Abstract Paper Due and Conference Papers Due (submitted for review)
- **Friday, April 14, 2023** | Debate, Panel, Seminar, Forum Workshop Accept / Reject Notifications
- **Wednesday, April 26, 2023** | Conference Paper Abstract Accept / Revise / Reject Notification
- **Wednesday, May 10, 2023** | Revised Conference Papers, Technical Papers Due
- **Sunday, May 21, 2023** | Conference Paper Accept / Reject Notifications

The following are the program tracks for Tampa:

1. HVAC&R Systems and Equipment.
2. Fundamentals and Applications.
3. Research Summit.
4. Decarbonization and Net Zero Pathways.
5. Future Proofing.
6. Building Automation and Control Systems.

Tampa Programs:

January 4, 2023

Draft Minutes Winter 2023 Meeting

TC-9.1 (Large Building Air Conditioning Systems)

Minutes

Subject: Program Subcommittee Meeting

Participants: Mark Fly, Kelley Cramm, Phil Trafton, Ken Warren, Mark Pavol, Elizabeth Primeau, Doug Cochrane, Russ Levitt, Hans Grabau, John Vucci, Howard McKew, Dennis Wessel

Dates for **Summer 2023 in Tampa** are:

- **Friday, January 6, 2023** | Website opens for Seminar, Workshop, Panel, Debates and Forums
- **Friday, February 24, 2023** | Technical Paper Final Accept/Reject Notifications
- **Monday, February 27, 2023** | Debate, Panel, Seminar Form, Workshop Proposals Due
- **Wednesday, March 29, 2023** | Extended Abstract Paper Due and Conference Papers Due (submitted for review)
- **Friday, April 14, 2023** | Debate, Panel, Seminar, Forum Workshop Accept / Reject Notifications
- **Wednesday, April 26, 2023** | Conference Paper Abstract Accept / Revise / Reject Notification
- **Wednesday, May 10, 2023** | Revised Conference Papers, Technical Papers Due
- **Sunday, May 21, 2023** | Conference Paper Accept / Reject Notifications

The following are the program tracks for Tampa:

1. HVAC&R Systems and Equipment.
2. Fundamentals and Applications.
3. Research Summit.
4. Decarbonization and Net Zero Pathways.
5. Future Proofing.
6. Building Automation and Control Systems.

Tampa Programs:

1. Forum: Can we engineer for Decarbonization? Co-charis: Kelly Cramm and Phil Trafton

Draft Minutes Winter 2023 Meeting

- a. Kelly and Phil will contact Kent Peterson, chair of the Decarbonization committee
2. Forum: System options in Evaporative cooling prohibited locations. Chair – Dennis Wessel (Submitted for tampa)
 - a. TC-5.7 Evaporative Cooling, **will co-sponsor**
 - b. Hans Grabau and Mark Pavol will provide support
 - c. What systems options are available / best for use in this situation?
 - d. Kelly Cramm will request comment from their Vegas office.
3. Forum: “Special design challenges in large and tall multi-family buildings”
Chair – Dennis Wessel (Submitted for Tampa)

Chicago Programs:

1. Seminar: Special Challenges in Pet Relief areas. Chair – Ken Warren
 - a. Russell Lavitt will provide input.
2. Forum: Does Standard 90.1 and Title 24 require over complication of control systems? Chair – Hans Grabau / Dennis Wessel
 - a. Phil Trafton will provide Title 24 support
 - b. will provide input from the control company he represents
 - c. A lighting control company should be contacted

Program possibilities for future consideration, in order of priority:

1. Does solar and/or wind energy have a role in large building systems? Co-sponsorship with TC-9.12 Tall Buildings
 - a. Title 24 requires 35% of roof area contain solar panels.
2. Special challenges in grow facilities. Contact the Agricultural TC for co-sponsorship.
3. HVAC System undersizing: How much is too much?
4. Do large multi family buildings have special challenges? Possible co-sponsorship with TC-9.12
5. Energy and operating cost comparison of various HVAC system types.
6. Large system multizone control options.