



**Technical Committee 9.07 Educational Facility Air-Conditioning Applications
Winter Meeting-Virtual & Las Vegas
Sunday, Jan 30th, 2021 3:30:00 PM– 5:30:00 PM Pacific Time (PT)**

DRAFT - MEETING MINUTES

Attendees:

Simona Tsvetkova	Bruce Lindsay	Chris Burroughs
Jacob Nelson	Section 9 Research Liaison	Tom Jacknisky
David Handwork	Itzhak Maor	Marilyn Listvan
Cary Norberg	Mark Long	Jacob Nelson
Keith Hammelman*	Jonathan	Jonathan Howard
Catherine Tinkler	Matt Middlebrooks -	Claire
Dominique Taudin	Marilyn Listvan – TC 2.4/2.3	Jeremy Zeedyk
Chris Ruch	Peter Oleske	Corey Metzger*
Eric Haley*	Amir Refaat	Lee Millies
Kyle Hasenkox*	Calvin Timmons	Ashish Desai

Voting Members not present: David Norvell, Melvin Glass, Raj Setty

*- Attended in Person

Quorum Formed, meeting convened

Virtual Meeting Etiquette reviewed

Roll Call-

Code of Ethics reviewed

Introductions Members and Welcome Guests

Agenda Review

RTAR Co Sponsor

Brief COVID Discussion-ETF Schools Team

- Thank you to group
- Still some outreach work occurring
- Mentioned total of over 9 billion media impressions from ETF work
- Transition Plan to be shared – copy full committee and Marilyn Listvan (MLISTVAN@yahoo.com)

OLD BUSINESS

Meeting Minutes Review (missing)

LIAISON REPORTS

TAC Section 9 Report -Motions, Activity forms, TAC

- Update Roster
- Get liaisons assigned for new groups (TG.RAST, Decarbonization, MTG.RES, etc.)
- Hold virtual meetings between conferences



Technical Committee 9.07 Educational Facility Air-Conditioning Applications Winter Meeting-Virtual & Las Vegas

Sunday, Jan 30th, 2021 3:30:00 PM– 5:30:00 PM Pacific Time (PT)

TC 7.3 – Operation and Maintenance Management (Lu / Handwork)

Merged with Owning operating, training costs, may have impacts on 9.7, IAQ scorecards
Cosponsored on APA 1000 standard, and ANSI standard, but no work with them has been done since then a couple years ago.

NZEB Advanced Energy Design Guide on K-12 Schools

SSPC 62.1, 90.1 and 189.1 (Handwork)

- Working on the 2022 standard publications. Entered elevator energy as standardized for 90.1, which is now out for public review.

SUBCOMMITTEE REPORTS AND BUSINESS ACTIVITIES

Program Subcommittee Report - Corey

Previous Proposed Program Seminars

- 1. K-12 Education Facilities Ventilation (Lindsay)**
- 2. Campus-wide Automation and Data Science (Setty)**

Toronto Tracks

- 1. Fundamentals and Applications:**
- 2. HVAC&R Systems and Equipment:**
- 3. Research Summit:**
- 4. Connected Buildings, Connected Communities**
- 5. Cold Climate Building System Design, Operation and Resilience**
- 6. IAQ, Energy Use, Comfort and Health of Sustainable Buildings:**
- 7. Professional Development and Education:**
- 8. Buildings in the Aftermath of COVID-19:**

Potential Programs:

- 1. Sensors in Educational Spaces for IAQ – TC 2.3/2.4 might be interested in providing speakers**
- 2. Information on IAQ Guidance Document (Likely after Toronto)**
- 3. Lessons Learned from ETF**
- 4. Campus-wide Automation and Data Science (Setty)**

Feb. 4-8, 2023 – Atlanta, GA

- 1. Potential future federal programs (likely after Toronto)**
- 2. Possible session on 3D Printers may be**

Membership Subcommittee Report (Haley)

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

AN INTERNATIONAL ORGANIZATION



Technical Committee 9.07 Educational Facility Air-Conditioning Applications
Winter Meeting-Virtual & Las Vegas
Sunday, Jan 30th, 2021 3:30:00 PM– 5:30:00 PM Pacific Time (PT)

Meeting will be convened after to update roster

Handbook Subcommittee Report (Maor)

New Addition RE Air Quality

Review Proposed chapter Revisions

Educational building resiliency being discussed to be incorporated within the Handbooks and Standards. Maor noted that he is aware of this effort and remains the point of contact for all updates concerning this content and educational facilities

Research Subcommittee Report

IAQ Educational study

Lab EUI

We will review other RTAR and work with other sections if committee is interested.

Standards Subcommittee Report

62.1 Liaison-Corey Metzger IEQ

90.1 Liaison-David Handword

NEW BUSINESS

- **Matt Middlebrooks – presented RTAR for research on new test rig setup that may be of interest to TC 9.7**
 - Most test methods for filters or air cleaners involve duct – other tests are sealed chambers – no recirculation – propose chamber with duct attached to account for recirculation – intent is to review in-room type units and different device types – initial focus is on airborne pathogens – intent is to use chamber of approximately 1,000 cubic feet (10'x10'x10' or similar) – current version of RTAR will be shared with chair
- **Marilyn Listvan – presented RTAR from TC 2.3 and TC 2.4 – Potential issues with ventilation associated with 3D printers**
 - RTAR focused on determining what ventilation rates or exhaust is necessary for these spaces
 - Brent Stephens at IIT has completed some preliminary work on this issue
- **Previous Work Plan Items**
 - Education facilities design guideline / best practices
 - Handbook content to address facilities characteristics serving ASD demographic
 - Maor updated on status. Will be sending out revised chapter for review later in spring.
 - Chapter Update Discussion-Coordination with 62.1 and 90.1 and ETF
- **Lab Classifications Discussion**
 - Coordination with 9.10
 - Coordination with Std 100
 - RTAR for Lab Building Classifications?
 - Keith will work to develop preliminary
- **Design Guide For Education Facilities Prioritization for Advanced Indoor Air Quality Review Proposed Draft**



Technical Committee 9.07 Educational Facility Air-Conditioning Applications
Winter Meeting-Virtual & Las Vegas
Sunday, Jan 30th, 2021 3:30:00 PM– 5:30:00 PM Pacific Time (PT)

- Discussion,
 - This will be continued to be developed with discussion in the near future.
 - Documented what ETF suggested as a “guide” for educational facilities. Want to be sure that the information that the ETF has provided and found does not get lost before the ETF is discontinued.
 - If TC 9.7 approves a paper be written, then a paper can be written and posted. A design guide has additional information and a longer approval process, which may extend the timeline by many months. An ASHRAE Design Guide would get much more use and exposure, but greatly extends the timeline and may not become available for use during this critical time during the COVID pandemic
- **Possible scope addition-Daycare/PreK**
 - Change our scope “TC 9.7 is concerned with the application of heating, ventilating, air-conditioning, refrigeration, life safety, and energy conservation systems to educational facilities.”
 - Motion carried Unanimously