



## **MINUTES**

### ***TC8.03 Absorption and Heat Operated Machines***

#### **2022 ASHRAE WINTER MEETING Hybrid**

**Location: Caesars Palace, Capri (P) ; WebEx**

TC8.03 Main Committee Meeting– Monday, January 31, 2022 2:30-4:30 PM (PST)  
Location: WebEx

Note: These draft minutes have not been approved and are not the official, approved record until approved by the Technical Committee.

## Minutes

### 1. Call to order

Ziviani

Meeting was called to order at 2:36 pm PST (5:36 p.m EST).

### 2. Review Scope

Ziviani

Technical Committee 8.03 is concerned with the design, performance and application of equipment energized by a heat source and using a thermodynamic cycle to provide an air-conditioning, refrigerating or heating function; with the properties of absorbent solutions or special working fluids used in these cycles; and with components of the cycle requiring specific design characteristics.

### 3. ASHRAE Code of Ethics Commitment

Ziviani

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 Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>)

### 4. Introductions

All  
Fronk

- a. Establishment of a Quorum

VOTING MEMBERS FOR THIS MEETING (Need 4 for a Quorum)

VOTING MEMBERS FOR THIS MEETING

X	Douglas Davis	(6/2025)	x	Davide Ziviani, Chair	(6/2022)
X	Brian Fronk	(6/2024)			
X	Kyle Gluesenkamp	(6/2024)			
x	Christopher Keinath	(6/2024)			
x	Jay Kohler	(6/2024)			

The TC presently has 6 voting members. A roll call of the voting members was taken, and a quorum was/was not established with 6 of 6 Voting Members present with chair non-voting.

- b. Total Attendees: 16; 2 new member; YEA members: 5
- 4 in person (Matthew (contact Matt Blaylock [mblaylock@stonemnttechnologies.com](mailto:mblaylock@stonemnttechnologies.com)), Joel ([joel.hamilton@beis.gov.uk](mailto:joel.hamilton@beis.gov.uk)), Amit, Davide)

### 5. Agenda additions

All

[Davide Ziviani] ASHRAE Special Pubs Review List (from Vinay Ananth Achar) to be discussed as part of the Handbook activities

- Desiccant and Absorption Cooling, 1995
- Application Guide for Absorption Cooling/Refrigeration Using Recovered Heat, 1995 (RP-773)

[Davide Ziviani] Basecamp TC8.3

### 6. Chair's Report

Ziviani

- The TC chair discussed the goals to increase participation especially from young researchers and increase research activities.
- **TC Chairs' Breakfast & Training Meeting** (Sunday January 30, 2022): **TC Chair attended; Vice-Chair watched recordings.**
  - 2019-2025 ASHRAE Strategic Plan (Link: <https://www.ashrae.org/about/strategic-plan>): one year extension to the 2019-2024 plan
  - Updates on RAP (Research Advisory Panel)
    - Members: R. Radermacher (Chair); Larry Markel (past RAP); Eckhard Groll; Allan Chad Kirkwood; Chun-Cheng Piao; Chris Wilkins (RAC); Mike Pouchak (RAC); Pawel Wargocki (Int'l)

- Six initiatives:
  - Resilience
  - IEQ – Environmental Quality in Occupied Spaces and Impacts on Work and Learning Health and Well Being, and Transmission of Airborne Infectious Viruses
  - Sustainably, Decarbonization, Energy and Resources
  - HVAC&R Equipment, Components and Materials
  - Tools and Applications
  - Education and Outreach
- 2021 ASHRAE Research Strategic Plan (Link: <https://www.ashrae.org/technical-resources/research/research-strategic-plan>): results analyzed from 800+ responses to the online survey
  - Task Force for Building Decarbonization (TFBD)
    - Started February 2021; 15 members; 9 working groups
  - Government Affairs Committee (GAC): influence policy makers
  - Shared Management-By-Objective (MBO) Template
  - Updated MOP Section 1.4.2.2 on voting balance
- **Research Subcomm. Chair's Breakfast** (Monday January 1/31/2022): **TC Chair attended since Kyle was not able to travel.**
  - RAC and PubCom have accepted first PTAR and are working to create first Funded publication
  - New RAC initiatives:
    - Web-based process to be used to submit and track research project documents to reduce inefficiencies and time to approvals
    - Improve RAC feedback to and from TC
    - Improved coordination between MORTS, TC, Research SubCom Chair PMSc Chair, PMS
    - New Research SubCom Basecamp
  - Research budget:
    - Typically \$2.6-2.7M per year. Funds normally covers 12-15 projects per year along with IRG, NIA, GIA
    - Funds collected thus far \$1.8M and covers current contract commitments only
      - IRG, NIA, GIA are suspended; URPs are stopped for the time being
    - RAC membership SY 2021-2022
      - Chair: Mike Pouchak; Vice-Chair: Omer Abdelaziz; RPS Chair: Paolo Tronville; RAS Chair: William Murphy.
      - Section1: Ahmed Kashef
      - Section2: William Hutzal
      - Section3: Chee Sheng Ow
      - Section4: Natascha Milesi-Ferretti
      - Section5: Jin Wen
      - Section6: Stefan Elbel
      - Section7: James Bogart
      - Section8: Chris Seaton
      - Section9: Roland Charneux
      - Section10: Lorenzo Cremaschi
    - 28 projects in the queue
- **TC Program Subcommittee Training** (Tuesday 2/1. 11:15 am – 12:00 pm; Milano VIII)
- **Handbook Training**

## 7. Liaison reports (as they arrive)

TAC Section 8 Head  
 RAC Liaison Section 8

**Liaisons**  
 Kevin Mercer  
 Chris Seaton

## 8. Minutes Approval

Motion to approve the minutes from 2022 Annual Virtual meeting: Doug  
 Second: Chris K.

**Ziviani**

The motion passed. (5-0-0-1, CNV)

## 9. Membership/Roster

Doug Davis

- a. Davide Ziviani continued to clean up the roster and update contacts.
- b. Changes to roster are to be submitted as "Save" by February 15, 2022 and will go into effect 7/1/2022.
- c. TC leadership and current positions held by various members were reviewed.
  - Chair position for year 3
- d. Discussion on potential voting members:
  - Bill Ryan

## 10. Subcommittee reports

### a. Programs

Bill Ryan

#### • 2022 Winter Conference – Las Vegas; Tracks:

Forum (Track 5): **Thermally-Driven Heat Pumping and Cooling to Enable Decarbonization**; 4 speakers. **Cancelled due to COVID and traveling issues**

#### • 2022 Toronto Annual Conference. Tracks:

- Fundamentals and Applications
- HVAC&R Systems and Equipment
- **Research Summit (Chair: Brian Fronk)**
- Connected Buildings, Connected Communities
- Cold Climate Building System Design, Operation and Resilience (Chair: Davide Ziviani)
- IAQ, Energy Use, Comfort and Health of Sustainable Buildings
- Professional Development and Education
- Buildings in the Aftermath of COVID-19

A potential seminar following the topic of the Forum will be considered during the Winter meeting in Las Vegas Seminar proposal (Track 5 - tentative): **Thermally-Driven Heat Pumping and Cooling to Enable Decarbonization**

Extended abstracts to the Research Summit, chaired by Brian Fronk, will be due on February 17, 2022

- Alejandro Lavernia (UCI)
- Zhiyao
- Kyle & ORNL

- Title: Thermally-Driven Heat Pumping and Cooling to Enable Decarbonization (Track 5)
- Chair: Kyle G.
- Speakers: Zhiyao/Ming Qu ; ANESI (?) ; Amit/Jason (cannot travel to Canada); Joel

Motion (Title/track): Jay

Second: Brian

Vote: approved (5-0-0-1 CNV)

### b. Research

Kyle Gluesenkamp

- Ongoing RTAR/WS/TRP:
  - 1) WS-1796: Application Guide for Absorption Chillers and Heat Pumps  
**Suggestion from Chris Seeton to submit as PTAR**
  - 2) WS-1842: Development of Co-Generation Tools for Building Designers (eQuest):  
**Resubmit WS with updates. Next RAC meeting is in the Spring and has a change to make it to the queue**
- New topics aligned with Research Strategic Plan:
  1. Resilience

2. IEQ – Environmental Quality in Occupied Spaces and Impacts on Work and Learning Health and Well Being, and Transmission of Airborne Infectious Viruses
3. Sustainably, Decarbonization, Energy and Resources
4. HVAC&R Equipment, Components and Materials
5. Tools and Applications
6. Education and Outreach
  - Research topic discussion:
    - 1) [Joel] absorption systems in district heating
    - 2) [Joel] justification/guidelines to use abs. chillers
    - 3) [Joel] review of working fluid pairs [PTAR]

#### c. Handbook

**Juergen Sharfe**

[Davide Ziviani] Two manuscripts:

- ~~Desiccant and Absorption Cooling (1995)~~
- Application Guide for Absorption Cooling/Refrigeration Using Recovered Heat (1995) – RP-773

Notes from Subcomm. meeting: seeking for support on drafting PTAR proposal. Doug volunteered to help Davide. Proposed a new title “Application Guide for Thermal Cooling and Refrigeration Systems”

Fundamentals Chapter 2 needs to be reworked.

#### d. Standards

**Jay Kohler**

- SPC 182 – Published (2020 version).
  - **Amit Vatsa** raised the topic of writing standards for large size Absorption Heat Pump used in the industrial applications and how it could be initiated with ASHRAE under TC 8.3.
  - [Amit] Vote is required to add large size; Amit would like to chair it.
  - [Jay] Look for members from the TC. A balance on the committee must be ensured.

Motion (approve a project committee to revise Standard 182 to add large size heat pump with Amit as Chair): Kyle

Second: Jay

Vote: approved **(5-0-0-1 CNV)**

- SPC 40 – [Ahmad AbuHeiba]: agreed on the equipment to be included and the language of the scope. Currently writing the sections of the standard. Nov 30, 2022 tentative date for a draft to go for Public Review.
  - [Bill] are there concerns of overlaps between SPC-40 and SPC-182?
  - [Ahmad] No. [Ahmad] looking for volunteers for section on test procedures.

#### e. Website

**Chris Keinath**

- Website is up-to-date
- Research Projects was said to be taken up by Kyle and he confirmed to investigate it.

### 11. Old Business

- a. The Chair asked opinions from the members if anything is pending from old meetings. There were none.

### 12. New Business

None.

### 13. Adjournment

Motion to adjourn made by **Jay** and seconded by **Doug**.

- Meeting was adjourned at **4:20 p.m. (PST)**