

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.**

**TC9.3 Agenda**

June 27, 2023

Hybrid Meeting (Chicago, IL: Marriot Marquis Chicago & Virtual

All times are Central Standard Time.

<b>Committee</b>	<b>Day</b>	<b>Date</b>	<b>Start</b>	<b>End</b>	<b>Room</b>	<b>Location</b>
GPC 23 Rail/Mass Transit Guideline and Mass Transit Subcommittee	Monday	01/22/2023	2:30 PM	5:30 PM	Geology (2)	Hybrid
GPC 23 Rail/Mass Transit Guideline and Mass Transit Subcommittee	Tuesday	01/23/2023	1:00 PM	3:00 PM	Geology (2)	Hybrid
TC 9.3 Programs Subcommittee	Tuesday	01/23/2024	9:00 AM	12:00 PM	Your own	Online
TC 9.3 Handbook Subcommittee	Tuesday	01/23/2024	9:00 AM	12:00 PM	Your own	online
TC 9.3 Automotive Subcommittee	Tuesday	01/23/2024	9:00 AM	12:00 PM	Your own	online
TC 9.3 Research Subcommittee-Business Presentations	Tuesday	01/23/2024 Pres: TBD	9:00 AM	12:00 PM	Shedd AB(2)	Hybrid & Online (w/E-31B)
TC 9.3 Transportation Air Conditioning Main Committee	Tuesday	01/23/2024	9:00 AM	12:00 PM	Shedd AB (2)	Hybrid
SSPC161 SSPC 161 Air Quality Within Commercial Aircraft	Tuesday	01/23/2024	1:00 PM	3:00 PM	Algebra Board Room (2)	Hybrid

**The Participant Web Meeting links are as follows:**

<b>TC 9.03 Mass Transit and GPC 23</b>	<a href="https://events.rdmobile.com/Asset/Download/a933564d-2bba-4564-bb7a-b683019dbdb0">https://events.rdmobile.com/Asset/Download/a933564d-2bba-4564-bb7a-b683019dbdb0</a> (Monday)  <a href="https://events.rdmobile.com/Asset/Download/0e5b6017-0e98-4b9f-bc3f-fef0fd659025">https://events.rdmobile.com/Asset/Download/0e5b6017-0e98-4b9f-bc3f-fef0fd659025</a> (Tuesday)
<b>TC 9.03 Programs</b>	Use Main Committee Meeting
<b>TC 9.03 Handbook</b>	Use Main Committee Meeting

<b>TC 9.03 Automotive</b>	Use Main Committee Meeting
<b>TC 9.03 Research</b>	Use Main Committee Meeting
<b>TC 9.03 t Main Committee</b>	<a href="https://events.rdmobile.com/Asset/Download/d80bb7ba-3525-4a17-b3c5-816abef8b7a6">https://events.rdmobile.com/Asset/Download/d80bb7ba-3525-4a17-b3c5-816abef8b7a6</a>
<b>SSPC 161</b>	<a href="https://events.rdmobile.com/Asset/Download/db7f52e1-fa9a-48d5-9c66-263bcfc4990a">https://events.rdmobile.com/Asset/Download/db7f52e1-fa9a-48d5-9c66-263bcfc4990a</a>

## Agenda

### 9:03 Call to Order & Establishment of Quorum; Online

#### a. Introductions

Name	Voting	YEA?	Location
Byron Jones	VM	N	Virtual
Rene Beaulieu	VM	N	Virtual
Ken Warren	CM	N	Virtual
Florian Mayer	CM	N	Virtual
G.D. Mather	VM	N	Virtual
Francisco Caicedo	CM	N	Virtual
Daniel Tandoi	CM	N	Virtual
Richard Fox	CM	N	In Person
Brad Cochran	Section Head	N	In Person
Andreas Bezold	VM	N	In Person
Alex Schmig	VM	Y	In Person
Aaron Mcfarlane	PCM	N	In Person
Michael Levin	VM	N	In Person
Jim Bushnell	VM	N	In Person
Medhat Hanna	CM	N	In Person
Ben Thiesse	VM	N	In Person
Judith Anderson	VM	N	In Person
Lubos Foreit	CM	N	In Person
Catherine Thibaud	CM	N	In Person
Stephen Trent	VM	Y	In Person
Rahul Dixit	CM	N	In Person
Sum	21	10-0-0-3	2

- a.
- b. **Roster Update**
  - a. **ID voting member roll-off after 2024 Winter Meeting**
    - i. **No Members rolling off**
      - 1. **Discussion about adding Lubos as voting member**
        - a. Initially rolled off so term as chair would be a voting member. Able to roll back on now.
  - b. **ID voting member additions (we have 13 VM currently, allowed 16)**
    - i. 10 Present 3 Absent
    - ii. Christopher McDaniel-current webmaster
    - iii. Lubos Forejt-current vice chair
    - iv. Alex Schmig-current secretary
    - v. Anthony Di Lorio
  - c. **Review committee positions (new/continuing)**
    - i. Lubos asking for new programs subcommittee chair
      - 1. Catherine interested in becoming new programs subcommittee chair
        - a. Vote 10-0-0-3
  - d. **Leadership Changes**
    - i. N/A

### **9:30 Old Business**

- a. **Approval of Minutes from January Atlanta Meeting**
  - a. Michael Levin, Jim Bushnell seconds (10-0-0-3)
- b. **Safety Standard for Transportation Refrigerating Systems (w/SSPC 15)**
  - a. Alex gave overview of activity
    - i. Standards committee approved TPS and put out call for membership

### **9:50 New Business**

- a. **Research- Andreas Bezold**
  - 1. **RTAR 1968- Mass Transit**
    - a. Update on RTAR – Optimize outside-air supply for passengers in a light-rail/subway car environment.
  - 2. **Brief Overview of Presentations from 1/16**
    - a. Research budget increased to \$5.5M No projects in the queue
    - b. Co-funded projects have a better chance of getting moved forward

**b. Subcommittee Reports and Handbook Chapter Approval Status**

- a. Handbook chapters published Summer 2023
  - i. Chapter 14 published as-is.
    - 1. Need for more engaged members to support chapter 14.

**1. Automobile & Chapter 11 -GD Mathur**

- a. PowerPoint & Update attached
- b. Discussion on PFAS and TFA
- c. Desire to create program for future conference



FW TC 9.3 - My

- d. Presentations for To

**2. Mass Transit & Chapter 12-Rene Beaulieu**

- a. RTAR 1968 Andreas to provide additional feedback
  - i. Optimize outside-air supply for passengers in a light-rail/subway car environment
- b. Investigating the impact or influence of ASHRAE STD 241 on transport
- c. Rail keeping an eye on refrigerant trends
- d. 2027 will be the next revision to the handbook
  - i. Need to start working on it after Orlando
  - ii. GD to summarize these dates for Indianapolis

**3. Aviation & Chapter 13- Richard Fox**

**4. Ship & Chapter 14-Kevin Glover**

**c. Program Subcommittee- Lubos Forejt (15 min)**

**a. Last meeting was January**

**b. No programs in Chicago**

**c. Future Programs**

- i. P. Lebbin (NRC) offered to present up to three papers:
  - 1. Research Plan for Disease Transmission Risk in Air Travel (2+3 years, FAA sponsored research just launched) Jammie Bennet, they were modeling, preparing for next pandemic;
  - 2. Updating guidance on carrying dry ice onboard aircraft (research was its final-reporting stage);
  - 3. Bioaerosols to evaluate technologies to decrease the airborne disease transmission risk (program completed in early 2023)
- ii. Cabin IAQ and Build-up of Cabin CO2
  - 1. GD Mather offered to present on cabin IAQ (UV based photocatalysis system for virus destruction) and Build-up of Cabin CO2 and effect on drivers' alertness/safety
- iii. PFAS in the US for Transportation

1. GD Mather – based on PowerPoint presentation during automobile subcommittee report

**d. Feb 26 is the deadline for Indianapolis**

1. Fundamentals & Applications
2. HVAC&R Systems and Equipment
3. Research Summit
4. Professional Development
5. Electrification: Possibilities and Pitfalls
6. Artificial Intelligence and the Built Environment
7. Building Life Cycle Assessment
8. Legislation, Standards, Codes and Guidelines



RE External Seminar  
for Indianapolis anc

ii.



TC 0903 Program SC Seminar idea tc903  
update Minutes\_Wiivinter 2023 Atlanta

**e. Additional Notes**

**d. Standards Report**

**a. Aircraft-SSPC161- Richard Fox**

- i. Update of sensing CO2
- ii. Planned Meetings for 2024
  1. March 12, 2024 – Meeting #1
  2. April 23, 2024 – Meeting #2
  3. June 4, 2024 – Meeting #3 and also the Annual SSPC161 Virtual Meeting. ASHRAE Scheduled meeting in Indianapolis, IN is June 22-26, 2024.
  4. July 16, 2024 – Meeting #4
  5. August 27, 2024 – Meeting #5
  6. October 8, 2024 – Meeting #6
  7. November 19, 2024 – Meeting #7
  8. December 31, 2024 – Cancelled – Next meeting will be face-to-face in Orlando, FL February 10-12.
- iii. SSPC161 also voted to hold the Summer meeting virtually and the winter meeting face-to-face.

**b. Mass Transit-GPC 23- Rene Beaulieu**

- i. Goal to release revision in 2026
- ii. Planning to have final draft ready by beginning of 2025



RE Materials from  
Winter 2024 9.3 Mec

iii.

**c. Ship-Standard 26- Kevin Glover**

- i. N/A

**e. Next Meeting Date and Location**

**a. Annual Conference June 22 to 26, 2024 Indianapolis**

- i. Stephen proposed meeting virtually only in summer meetings.
- ii. Stephen to reach out with survey to schedule virtual meeting

**f. Section Head Report**

- a. How to better connect chapter to local/regional activities and vice versa
- b. New MTG MTG-Generative AI
  - i. How to best utilize AI within ASHRAE
- c. New Section group "9.13 Space"
- d. 1% of ASHRAE membership are fellows (TC 9.3 has 3 fellows present!  
Nice work!)
- e. Looking for applications for the Hightower Award

**12:00 Adjournment-**

Rene makes motion to adjourn Jim seconds