

**ASHRAE TC 9.10 Laboratory Systems
Virtual (Annual 2021)
Thursday, June 17, 2021
Meeting Minutes**

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING
ENGINEERS, INC.
1791 TULLIE CIRCLE, N.E./ATLANTA, GA 30329
404-636-8400**

TC/TG/TRG MINUTES COVER SHEET

TC/TG/TRG NO	9.10	DATE	January 28, 2021
TC/TG/TRG TITLE	Laboratory Systems		
DATE OF MEETING	June 17, 2021	LOCATION	Virtual

Voting Members Present	Term Expires	Members Absent	Term Expires	Ex-officio members and additional attendance
Guy Perreault (Chair)	2022	Jason Atkisson	2021	Robert Weidner
Brad Cochran	2022	Tom Smith	2021	John Castelveccchi
Christine Reinders-Caron	2023	Patrick Carpenter	2021	Lou Hartman
Kenneth Kuntz	2021	Jacob Edmondson	2022	Jim Coogan
John Varley	2024	Mary Foutz	2023	Roland Charneux
Eric Ballachey	2023	Lloyd Le	2023	Charles Henck
Kishor Khandari	2024	Glenn Friedman	2024	Gordon Sharp
Martin Stangl	2023	Brent Fullerton	2022	Wei Sun
				Rachel Romero
				Charlie Hon
				Danny Sanchez
				George Isherwood
				Ryan Parker
				Matthew Warren
				Kevin Belusa
				Otto VanGeet
				Ryan Soo

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			Traci Hanegan
			Wilburn Larson
			Wade Conlan

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DISTRIBUTION

<i>All Members of TC/TG/TRG plus the following:</i>	
TAC Section Head: Vance Payne	
TAC Chair: Dustin Eric Jason Meredith	
All Committee Liaisons As Shown On TC/TG/TRG Rosters:	
Standards Liaison: Rick Heiden	
Manager of Research & Technical Services: Mike Vaughn	
Research liaison: Paolo Tronville	

Call to order 3:00 PM / Introductions

Guy reviewed the ASHRAE Cod of Ethics.

Guy gave introduction to TC9.10 and reviewed high level objectives of the committee.

Introduction to TC9.10 website and Basecamp. Jim Coogan is web master. Roles and responsibilities are on the website. Discussion on posting presentations on the website. Concern is ownership and sale of virtual conferences.

Skipped individual introductions because of virtual meeting, participants could see participants list.

Reviewed Current Leadership and Follow-on leadership.

Currently there are 16 voting members – preference is to have mix of manufacturers, owners, consultants, and contractors.

Quorum is not met 8 of 16 members present.

Membership Update (Brad Cochran)

Current Leadership

Chair – Guy Perreault

Vice-Chair – Robert Weidner

Secretary – John Castelvechi

Rolling off June 30, 2021

- Ken Kuntz
- Jason Atkisson

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- Tom Smith
- Patrick Carpenter

Rolling on July 1, 2021

Wei Sun
Kelley Cramm
Robert Weidner
Ken Crooks

Approval of Virtual meeting minutes (Guy Perreault)

- Minutes from the 2021 Winter Virtual meeting were emailed previously.
- Comments on 2021 Winter Virtual Minutes:
 - None
 - Minutes were not approved at the meeting because of no quorum, will hold until next meeting.

Section Head Report (Brad Cochran)

- No report

Program Subcommittee (Christine Reinders-Caron)

- See sub-committee report attachment.
- 13 attendees
- 1 sponsored live program
- 2 sponsored on demand seminars
- 1 Co-sponsored seminar
- 10 ideas for future programs
- August 2nd is deadline for program seminars for Las Vegas.
- Conference Paper abstracts due July 12th for Las Vegas
- Program template is on basecamp.
- Planning zoom meeting before August deadline.

Research Subcommittee (Bob Weidner)

- See sub-committee report on attachment.
- 18 in Attendance
- RP 1780 – Test Method to develop a Methodology to Evaluate Cross Contamination of Gaseous Contaminants within Total Energy Wheels – Project was awarded to University of Saskatchewan. Deadline now March 1, 2022 due to Covid.
- Work statement 1835 Characterizing the Performance of Entrained Flow Stacks– sending out for rebid.
- Future Research
 - Next steps to RP 1780

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- Surveying of sources of contamination of existing labs.
- Research of Labs in Higher Education – co-sponsor
- Research on 3D printing
- DCV in labs
- Ventilation Effectiveness
- Use of Analytics to better operate Labs.
- RP 1833 on Air Changes ongoing. Final report due in July

Laboratory Classification (Danny Sanchez)

- Need to get word out about the Lab Classification Guide.
- Looking to Improve.

Standard 110 (Wade Conlan)

- No report – Meeting next Friday

Laboratory Design Guide (Ken Kuntz)

- See attached minutes.
- 20 attendees
- Working on Guide a little over 3 years
- Chapters Complete
 - Chapter 3: Design Process
 - Chapter 5: Laboratory Hood Design-may re-open
 - Chapter 11: Controls
 - Chapter 14: Laboratory Commissioning Process
 - Chapter 16: Microbiological and Biomedical Laboratories
- Working on editing the following chapters.
 - Chapter 4: Laboratory Planning
 - Chapter 8: Air Treatment
 - Chapter 9: Exhaust Stack Design
 - Chapter 12: Airflow Patterns and Testing Procedures
 - Chapter 17: CFD Modeling of Laboratory Ventilation
 - Chapter 18: Sustainable Design
 - Chapter 20 (new): Ventilation Effectiveness

Handbook Subcommittee (Lou Hartman)

- A year to go, due mid 2022.
- Reviewed chapter updates
- Need to Update
 - Building Analytics
 - Dynamic testing, part of commissioning section

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- Chapter on basecamp, need comments by Winter meeting.

Journal (Roland Charneaux)

- One article in March Journal since Winter meeting

ALI Courses (John Varley)

- Lab Design – Have not received invitation from ALI for Las Vegas. Looking for someone to give the class – reach out to John Varley
- Lab Controls – About 95% complete, need to get paperwork to ASHRAE. Need to add equipment and safety monitoring at front end.

Liaison Reports

- TC 1.4 Control Theory & Applications (Jim Coogan)
 - Seminar for Toronto for sequences for labs.
- TC 2.2 Plant and Animal Environment (Henry Hays)
 - Not Report
- TC 4.3 Ventilation and Infiltration (Martin Stangl)
 - On demand seminar 34 on wind modeling
- TC 5.1 Fans Systems (Ken Kuntz)
 - No Report
- TC 5.3 Room Air Distribution (Kishor Khankari)
 - Air contamination and white paper
- TC 7.6 Building Energy Performance (Pat Carpenter)
 - No Report
- TC 7.9 Commissioning (Wade Conlan)
 - No Report
- TC 9.2 Industrial Air Conditioning (Eric Ballachey)
 - No Report
- TC 9.6 Healthcare (Traci Henegan)
 - Nothing specific to labs
- Update on Epidemic Task Force (Traci Henegan)
 - Updated core recommendations
 - One page Guidance Documents
 - Dental Facilities
 - Equivalent OA Calculator (adding filtration and UV)
- TC 9.7 Educational Facilities (Keith Hammelman)
 - No Report
- TC 9.11 Clean Spaces (Roland Charneux)
 - RP 1604 Variable flow for Cleanrooms should be completed by end of year.

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- MTG ACR (Jim Coogan)
 - No Report
- Standard 62.1 Ventilation for IAQ (Brendon Burley)
 - No Report
- 90.1 Energy Efficiency (Jason Atkisson)
 - No Report
- SMACNA
 - No Report
- NFPA 45 (Ken Crooks)
 - No Report
- NSF
 - No Report
- ISPE
 - No Report
- AIHA/ASSP Z9.5 (Jim Coogan)
 - Public review starts 6/18/21 6-week period.
 - ASSP.org need to email person in charge of standards to participate in the review. Must buy standard to participate in review.
 - Major Updates
 - Ventilation effectiveness must be addressed during design.
 - Hood testing aligned with Std 110.
 - DCV section updated.
 - Risk Assessment and Lab ventilation plan updated.
- I2SL (Gordon Sharp)
 - In person conference Sept 26-29 in Atlanta, registration is open.
 - User manual for labs in development.
 - Lab benchmarking tool in development.
 - Effort to revitalize best practice guide.

Old business

- None Reported

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New business

- Congratulate John Varley on nomination to Fellow.
- January 29 to February 2, 2022 – Next meeting in Las Vegas.

Main Meeting adjourned at 4:03 pm.

DRAFT