



TC 4.5

AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS, INC.
180 Technology Parkway NW, Peachtree Corners, GA 30092
(404) 636-8400

TC/TG/TRG MINUTES COVER SHEET

(Minutes of all TC/TG/TRG Meetings are to be distributed to all persons listed below within 60 days following the meeting.)

TC/TG/TRG NO.:	4.5	TC/TG/TRG TITLE:	Fenestration
DATE OF MEETING:	June 27, 2023	LOCATION:	JW Marriott Tampa, Columbus (3) Virtual (Microsoft Teams)
DATE ISSUED:	June 27, 2023	RECORDED BY:	Niraj Kunwar on behalf of Thanos Tzempelikos



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Name	Affiliation	Email	Member	Present
Mahabir Bhandari	ORNL	bhandarims@ornl.gov	Chair	Y
Aziz Laouadi	NRC	aziz.laouadi@nrc.ca	VM	Y
Bipin Shah	WinBuild Inc	winbuild.usa@gmail.com	VM	Y
Iason Konstantzos	University of Nebraska - Lincoln	iason.konstantzos@unl.edu	VM	Y
Sagar Rao	AEI	sagar.rao@outlook.com	VM	Y
Dave Monsour	DASMA	dmonsou@thomasamc.com	CM	Y
Anil Parekh	Natural Resources Canada	anil.parekh@NRCan-RNCan.gc.ca	CM	Y
Jean-Michel Dussault	Veridis Solutions inc.	jean-michel.dussault@veridissolutions.com	CM	Y
Michael Hammond	Vitro Architectural Glass	mhammond@vitro.com	CM	Y
Niraj Kunwar	ORNL	kunwarn1@ornl.gov	CM	Y
Ravi Srinivasan	Univ. of Florida	sravi@ufl.edu	CM	Y
Robert Hart	LBNL	rghart@lbl.gov	CM	Y
Alliston Watts	NREL	alliston.watts@nrel.gov	Guest	Y
Damilola Onatayo	Univ. of Florida	onatayod@ufl.edu	Guest	Y
Jason Glazer	Gard Analytics	jglazer@gard.com	Guest	Y
Jeannie Kim	Argonne National Lab	jihyun.kim@anl.gov	Guest	Y
Louis-Gabriel Maltais	Veridis Solutions	louis-gabriel.maltais@veridissolutions.com	Guest	Y
Mike Radack	AERC _DR International		Guest	Y
Pat Marks	JCI	patrick.c.cmarks@jci.com	Guest	Y
Simon Vidanovic	LBNL	DVVidanovic@lbl.gov	Guest	Y
Yuan Gao	LBNL		Guest	Y
Manohar Baalaganapathy	SSOE	bmanohar@ssoe.com; baalaganapathymanohar@gmail.com	PCM	Y
Sam Taylor			PCM	Y
Total Voting members:8 Voting members present: 5				



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2023 ASHRAE Annual Conference June 24-28, 2023, Tampa, FL

TC 4.5 Annual Meeting – Hybrid (In-Person with Virtual Option)

Tuesday, June 27, 2023

SCOPE:

TC 4.5 is concerned with the identification and evaluation of all physical properties of (1) glasses and other glazing materials, (2) shading and shielding materials and devices, and (3) control devices and strategies which influence the radiant, conduction, and convection transfer of both heat and light through fenestration systems. It is also concerned with the development of procedures for calculating and measuring solar heat gain, daylight admission, and heat transfer through fenestration systems.

COMMITTEE AND MEETING INFORMATION

TC Web Site: <http://tc0405.ashraetcs.org>

Basecamp: <https://3.basecamp.com/3106353/projects>

INTRODUCTIONS AND ROSTER CHECK

5 VMs present, quorum was reached

APPROVE MEETING AGENDA

Agenda was approved unanimously

APPROVE MINUTES FROM PREVIOUS MEETING

The minutes were approved unanimously

ANNOUNCEMENTS (TC CHAIR)

ASHRAE seeks involvement from more YEA members

Intentional efforts to globalize ASHRAE efforts

Task force for decarbonization

ASHRAE developing guides on building decarbonization, embodied carbon

ROSTER CHANGES

Chair- Iason Konstantzos

Vice Chair- Robert Hart

Program SC Chair- Niraj Kunwar

VM-Dave Monsour



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LIAISONS REPORTS

a. Reports /Guidance/update

Jason Glazer:

- A new work group for SSPC-205 (Getting data from the manufacturer in a standard format so that it can be used in software)
- A working group for Fenestration was approved – Primarily window format was used in EnergyPlus, IESVE and this workgroup wants to standardize that
- They are aware of LBNL, Fraunhofer and NFRC CPD database---and if more databases are there they want to standardize that
- Contact Jason Glazer if you want to join SSPC-205

Dennis:

- Contact Dennis before August for WS

SUBCOMMITTEE REPORTS

- i. Program (Iason Konstantzos)
 - i. Tampa, FL (Annual 2023)
No programs
 - ii. Chicago, IL (Winter 2024)
Will aim for something for Chicago
- ii. Research (Sagar Rao)
 - i. RTAR (4) – No major changes
PTAR might be something we would like to pay attention to since ASHRAE funds them separately.
 - ii. Work Statements
WS 1925-Iason brought it up to 2.1 subcommittee and they will vote for co-sponsoring of the WS on the main committee
WS 1926: After addressing the RAC comments, Mahabir will re-submit it before August 15, 2023
 - iii. RP
1789- Need at least three bidders (expand the bidder list) -change the duration to 1 year instead of 18 months: Mahabir will get at least 3 bidders and submit to ASHRAE
- iii. Calculation Methods (Charlie Curcija)
No action items. Committee suggestion: Can this be incorporated into research subcommittee instead of having it as a separate subcommittee?
- iv. Handbook (Ravi Srinivasan)
Assigned different people for different tasks for the handbook
Daylighting- Taoning/Luis can help with it



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OLD BUSINESS

N/A

NEW BUSINESS

90.1 references NFRC 100 Standard—does this cause any confusion?- Ask Charlie to discuss it with 90.1

ADJOURN