

DRAFT

Monday, February 03, 2020

2:15 – 3:15 p.m.

Location

Thronton Park, Hilton
Orlando, FL

Subcommittee Chair

Sagar Rao

Attendees [9]

Iason Konstantzos (UNL)
Mahabir Bhandari (ORNL)
Charlie Curcija (LBNL)
Sagar Rao (AEI)
Abdelaziz Laouadi (NRC)
Joe Hetzal (Dasman)
Anil Parekh (NRC)
Thanos Tzempelikos (Purdue University)
Christian Kohler (LBNL)

Introductions

Meeting started at 2:15 p.m., Sagar Rao agreed to be meeting secretary.

Review Agenda

Introductions
Research Topic Acceptance Request (RTAR)
Current Work Statements
Long Range Research Plan
Adjourn

Research Topic Acceptance Reports (RTAR)

“Visual Comfort Implications of Fenestration Selection in Commercial Buildings”
Jason Konstantzos of University of Nebraska Lincoln, Sagar Rao of Affiliated Engineers,

Luis Fernanded of Lawrence Berkley National Lab, Peter Lyons/Peter Lyons & Associates, Thanos Tzempelikos of Purdue University

1. develop tools and methods for the evaluation of visual comfort criteria for fenestration design in buildings.
2. The contribution of the visual comfort provided by windows has not been well defined. The results from this research would be a good addition to the ASHRAE Handbook.
3. TC 2.1 may be a potential co-sponsor.

NOTE: Look for collaboration opportunities with other TCs in addition to TC 2.1

ACTION: Jason to distribute WS to committee by 03/31

Work Statements (Formerly RP-1414)

“Update of U-factors, Solar Heat Gain Coefficients and Visible Transmittances of Standard Fenestration Units made from Representative Fenestration Frame and Glazing Systems in the Fenestration Chapter of the Handbook of Fundamentals.”

Willie Dupont of Sunenergy Consulting, Bipin Shah of , Charlie Curcija of LBNL, and Chris Mathis

1. Willie distributed a new version of the WS for the committee to review
2. Working Group constitution -
 - Chair - Willie DuPont
 - Members - Mahabir Bhandari, Bipin Shah, Charlie Curcija, Chris Mathis

ACTION: Mahabir to review WS and provide an updated version for review before Annual 2020 meeting

Research Projects (RP)

TC 4.5 WS-1789: “Optical and Thermal Performance of Hollow Glass Blocks.”

Aziz Laouadi of NRC

1. A new PES has been constituted -
 - Chair: Anil Parekh
 - Members - Jacob Jonsson and Mahabir Bhandari
2. RAC as requested the WS author(s) to expand the list of potential bidders in the WS
3. Charlie to forward PES list to Research Liaison

ACTION: 1. Aziz to expand the bidders list and distribute to committee by 02/28

2. Charlie to share an updated list of PES members with the RAC by 04/01

Long-Range Research Plan

“Characterizing Thermal Performance of Vacuum Insulated Glazing (VIG)”

Abdelaziz Laouadi of NRC, Charlie Curcija of Lawrence Berkley National Lab,

1. TBD

NOTE: Look for collaboration opportunities with other TCs

ACTION: Aziz to distribute WS for review by 06/01

“Evaluating View Performance: Quantity and Quality (including different glazing systems, E/C, fritt etc.) ”

Jason Konstantzos of University of Nebraska Lincoln, Thanos Tzempelikos of Purdue University

1. TBD

NOTE:

ACTION:

“Circadian effects from glazing”

1. TBD

Building Integrated Photovoltaics (BIPV)

Chris Gueymard of Solar Consulting Services, Peter Lyons of Peter Lyons & Associates, and Anil Parekh of National Resources Canada

1. An RTAR, which includes the effect of Solar Heat Gain and Daylighting, needs to be developed and submitted. TC 6.7 may be a potential co-sponsor.

Develop Revise the Shading Chart, (Keys Chart), in the Fenestration Chapter of the Handbook of Fundamentals

Michael Collins of University of Waterloo, Thanos Tzempelikos of Purdue University, and Peter Lyons of Peter Lyons & Associates

1. Mike Collins suggested that the existing table in the Handbook of Fundamentals needs to be revised based on current research.

Guidelines for Operating Manual and Automated Shading Systems

Tzempelikos of Purdue University, and Robert Hart of Lawrence Berkeley National Laboratory

1. Need to develop strategies and schedules for the operation of manually and automatic shading systems that optimize performance of those products for the whole building.

Develop Methodology to Calculate the Optical Properties and Solar Heat Gain of Fritt Glazing

Robert Hart and Charlie Curcija of Lawrence Berkeley National Laboratory

Adjournment

Meeting adjourned.

Respectively Submitted

Sagar Rao/Affiliated Engineers, Inc.