

TC 4.5 Program Subcommittee Meeting Minutes

Sunday, June 26, 2005

4:30 – 5:30 p.m.

Plaza Court 8
Adam's Mark Denver
Denver, Colorado

Attendees[10]

Brian Crooks/Cardinal Corporation	Victor Kootin-Sanwu/Univ. of Cincinnati
William duPont/Sunergy Consulting (Chair)	Aziz Laouadi/NRCC
A. Hakim Elmahdy/NRCC	Anil Parekh/Natural Resources Canada
Chris Gueymard/Solar Consulting Services	Jason Theios/Guardian Industries
Christian Kohler/LBNL	John Wright/Univ. of Waterloo

I. Introductions, and Anil Parekh agreed to be secretary

II. Denver Program, June 25-29, 2005

Seminar 20: "Fenestration and Energy Codes," *Chair: Victor Kootin-Sanwu/University of Cincinnati* {Adam's Mark Denver, Plaza Ballroom E/F, 06/27/05, Monday, 8:00 – 10:00 a.m.}

- 1) "Nonresidential Fenestration Requirements and Compliance with Standard 90.1-2004 and the IECC 2004 Supplement," *John Hogan/Seattle Department of Planning and Development*
- 2) "National Fenestration Rating Council Ratings and Energy Code Compliance," *James C. Benney/NFRC*
- 3) "Residential Fenestration and the Code: A Perspective on Current and Future Requirements," *Christopher Mathis/MC²*
- 4) "Setting Energy Efficiency Levels for Windows in Canada," *Anil Parekh/CANMET Energy Technology Centre*

Deadlines: Technical Papers were due to ASHRAE on September 24, 2004;

TC 4.5 Symposium Papers were due to Symposium Chairs on September 24, 2004;

All reviewed paperwork with TC Chair signature to ASHRAE: February 18, 2005.

III. Chicago Program, January 14-18, 2006

[1] **Symposium:** "Measurement and Calculation of Skylight Performance," *Chair: Mike Collins/Univ. of Waterloo*

- 1) "NFRC Glass Block Solar Heat Gain Research Project,"
- 2) "Solar Heat Gain Coefficients for Seven Glazing Types in Combination With Nine Interior Window Attachment Products,"
- 3) "Comparing Infrared Thermography Measurements and Simulations of Whole Window Surface Temperature Measurements,"
- 4) "Annual Energy Performance of Skylights,"
- 5) "Validation of Skylight Performance Software,"

[2] **Symposium:** "Evaluating and Improving Fenestration Performance," *Chair: Anil Parekh/NRCC*

- 1) "Warm Edge Technology,"
- 2) "Solar Absorption by Each Element in a Glazing/Shading Layer Array (1311-RP),"
- 3) "Thermal Resistance of a Window with an Internal Venetian Blind: Guarded Heater Plate Measurements (1311-RP),"

Chicago Program, January 14-18, 2006 (Continued)

[3] **Seminar:** “Back to Basics: Specifying the Right Windows for Your Job,” *Chair: François Dubrous/NRCCan*

- 1) “Window Condensation and How to Deal with It,” *John Wright/University of Waterloo*
- 2) “Windows in Commercial Buildings,” *Anil Parekh/NRCCan*
- 3) “Understanding Glazing,” *Brian Crooks/Cardinal Corporation*

[4] **Forum:** “Window/Wall Interface Issues,” *Chair: Hakim Elmahdy/NRC Canada*

NOTE: Numbers in Brackets (e.g., [2]) Signify Recommended Priority as Identified at TC 4.5 Committee Meeting in Denver, CO

Deadlines: Technical Papers were due to ASHRAE on April 1, 2005;

TC 4.5 Symposium Papers were due to Symposium Chairs on April 1, 2005;

All reviewed paperwork with TC Chair signature to ASHRAE: August 5, 2005.

IV. Quebec City Program, June 24-28, 2006

Symposium: “Improvements in Computer Modeling Fenestration Performance,” *Chair: A. Hakim Elmahdy/NRCC*

- 1) “Variable-h Model for Improved Prediction of Surface Temperature in Fenestration Systems,” *Dragan Curcija and Yie Zhao/Univ. of Massachusetts*
- 2) “Use of Detailed Radiation Modeling in Predicting Heat Transfer of Fenestration Systems,” *Dragan Curcija/Univ. of Massachusetts*
- 3) “Calculation of Condensation Resistance Indices Using Computer Modeling Tools,” *Dragan Curcija/Univ. of Massachusetts and Bipin Shah/NFRC*
- 4) “Turbulent Heat Transfer in Buoyancy Driven Natural Convection in Vertical Enclosures,” *Y. Yang, Charlie Curcija and M.B. Bandari/Univ. of Massachusetts*
- 5) “Results and Lessons of NFRC Round Robin Testing and Simulations,” *Bipin Shah & Raymond McGowan/NFRC and William C. duPont/Sunergy Consulting*

Symposium: “Assessing the Performance of Windows Using Infrared Thermography,” *Chair: François Dubrous/NRCCan*

- 1) “Computer Simulation of Specimens Using FIDAP,” *Dragan Curcija/Univ. of Massachusetts*
- 2) “Summary of Test and Simulation Results,” *Anil Parekh/NRCCan*
- 3) “Evaluation of Calorimeter Tilt Angle on the Impact of the Solar Heat Gain Coefficient Measurement Using an Outdoor Solar Calorimeter Located in Tempe, Arizona,” *David Tait/Tait Solar*
- 4) “Thermal Resistance of Windows with an Internal Venetian Blind – A Simplified Model (1311-RP),” *John Wright/University of Waterloo*
- 5) “Calculating Performance Indices for Windows with Diathermanous Layers (1311-RP),” *Mike Collins & John Wright/University of Waterloo*

Deadlines: Technical Papers are due to ASHRAE on September 23, 2005;

TC 4.5 Symposium Papers are due to Symposium Chairs on September 23, 2005;

All reviewed paperwork with TC Chair signature to ASHRAE: February 10, 2006.

V. Adjourn

Respectively Submitted: Anil Parekh/Natural Resources Canada