



PROGRAM BOOKLET

(Agendas, Draft Minutes & Committee Rosters enclosed)

NFRC 2009 Fall Membership Meeting

San Antonio, Texas

November 16 – 19, 2009



National Fenestration Rating Council

6305 Ivy Lane, Suite 140

Greenbelt, MD 20770

301/589-1776

www.nfrc.org

NFRC 2009 Fall Membership Meeting Schedule ~ November 16 - 19, 2009

Sheraton Gunter Hotel • San Antonio, Texas

Schedule subject to change

	Crystal Ballroom ↓ Monday[†] 11/16/09 (Registration opens 6:30 a.m.)	Blue Bonnet Room ↓	Tuesday 11/17/09 Crystal Ballroom	Wednesday 11/18/09 Crystal Ballroom	Thursday 11/19/09 Crystal Ballroom
7:30 a.m.	NFRC New Member Orientation (7:30 a.m. - 8:30 a.m.)		Research & Technology Block (7:30 a.m.-12:30 p.m.) Subcommittees to Convene: • Thermophysical Prop of Materials SC • Glossary & Terminology Task Group • Research Subcommittee • Optical Properties Subcommittee <i>NOTE: 15 min break between SC & Committee</i> R&T COMMITTEE CONVENES	Technical Committee Block (Part Two: 7:30 a.m.-12:30 p.m.) Subcommittees to Convene** • U-Factor Subcommittee • Solar Heat Gain Subcommittee • CMA Subcommittee (Technical) <i>NOTE: 15 min break between SC & Committee</i> TECHNICAL COMMITTEE CONVENES	NFRC Board Meeting (8:00 a.m.-11:00 a.m.)
8:00 a.m.					
8:30 a.m.	Attachments Block (8:30 a.m.-10:30 a.m.) Roundtable Discussion: Board Direction Task Groups to Convene:	Door Task Group (8:30 a.m.-10:00 a.m.)			
9:00 a.m.	• Interior/Ext TG • Awnings TG • DASD TG*				
9:30 a.m.	• Storm Window TG • Applied Film TG • Attachment-Optical Prop TG				
10:00 a.m.	• Attachment-PCP TG • Attachment-Label TG	Garage/Rolling Door U-Fac Task Group (10:00 a.m.-10:30 a.m.)			
10:30 a.m.	PCP Task Group (10:30 a.m.-11:30 a.m.)	Garage Door SHGC TG (10:30 a.m.-11:00 a.m.)			
11:00 a.m.		Tubular Daylighting Task Group (11:00 a.m.-12:00 p.m.)			
11:30 a.m.	Product Line ID Task Group (11:30 a.m.-12:00 p.m.)				
12:00 p.m.	NFRC Networking Luncheon (12:00 p.m.-1:00 p.m.)				
12:30 p.m.	Buffet Luncheon Provided by NFRC for all registered meeting attendees				
1:00 p.m.	-NFRC Fall Membership Meeting 2009- Opening Session (1:00 p.m.-2:30 p.m.) • Welcome/Opening Remarks • Chair's Reports • Speaker		Meeting Break (12:30 p.m.-2:00 p.m.)	Meeting Break (12:30 p.m.-2:00 p.m.)	
1:30 p.m.					
2:00 p.m.					
2:30 p.m.	Regulatory Affairs & Marketing Committee (2:30 p.m.-4:00 p.m.)		Technical Committee Block (Part One: 2:00 p.m.-5:00 p.m.) Subcommittees to Convene:** • Software Subcommittee • Condensation Resistance SC • Attachment Subcommittee • Air Leakage Subcommittee • Annual Energy Performance Subcommittee	Ratings Committee Block (2:00 p.m.-5:00 p.m.) Subcommittees to Convene: • Certification Subcommittee • Labeling Subcommittee • CMA Subcommittee (Ratings)	
3:00 p.m.					
3:30 p.m.					
4:00 p.m.	NFRC Policy Committee Block (4:00 p.m.-5:00 p.m.) Committees to Report: • Accreditation Policy Committee • Technical Interpretations Policy Committee • Certification Policy Committee		<i>Technical Committee - Continued 7:30 a.m. 11/18/09**...</i>	<i>NOTE: 15 min break between SC & Committee</i> RATINGS COMMITTEE CONVENES	
4:30 p.m.					
5:00 p.m.	BIM Presentation (5:00 p.m.-6:00 p.m.) Applying Building Information Modeling (BIM) to the NFRC Process Presentation by Justin Wong, D. Charlie Curcija, and Peter Lyons		NFRC Membership Reception All Registrants Welcome (5:00 p.m.-6:30 p.m.)	Meeting Attendees – on your Own.....	
5:30 p.m.					
6:00 p.m.	Meeting Attendees – on your Own.....				
6:30 p.m.					



[†]Continental Breakfast will be served Monday –Thursday before the first meeting convenes (will be available for up to one hour). Complimentary for all NFRC Meeting Registrants.

*"DASD TG" = Full Task Group Name is "Dynamic Attachments for Swinging Doors Task Group"

** Subcommittees Under the Technical Block will run consecutively - as time allows, groups listed will go in order - but date/time is not guaranteed.



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**Special Thanks to the NFRC Meeting Sponsors for the
 2009 Fall Membership Meeting in San Antonio, Texas**

Gold Sponsor:

HunterDouglas

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**Professional Awning
 Manufacturers Association**

---Welcome from the NFRC Chair of the Board ---



National Fenestration
Rating Council®

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James C. Benney

November 16, 2009

Dear NFRC Members and Guests,

¡Bienvenidos a la hermosa ciudad de San Antonio!

Our third and final membership meeting of 2009 brings us to our nation's seventh-largest city and the home of the world-famous Alamo and Riverwalk. It's also the birthplace of actors Joan Crawford and Carol Burnett, and where actors Tommy Lee Jones and Alice from the Brady Bunch (Ann B. Davis) currently live.

I hope you'll find time to enjoy this wonderful city, but I must warn you that we have a very busy schedule. We have an incredible 26 ballots up for review and approval, which may be a record. These include:

- The NFRC 600-Glossary and Terminology ballot under the Research & Technology Committee;
- More than a dozen ballots under the Technical Committee, including a number of 2010 documents, applied films and garage doors under the SHGC Subcommittee, and two Attachment Subcommittee ballots on U-factor and SHGC and VT;
- Quite a few NFRC 700-related Ratings Committee ballots.

We also have our ongoing work on attachment products, the CMA program, and other perennial issues.

Please make sure to attend the Opening Session on Monday. In honor of our 20th anniversary – yes, that's right, we're 20 years old this year – we've invited Chris Mathis, who has been a part of NFRC since the very beginning, to share his memories of the organization's early years. It promises to be a fun and informative walk down memory lane. And don't miss the Membership Reception on Tuesday evening.

I'd like to close by expressing my appreciation to everyone who has joined us this week. It's always hard to leave our real jobs and lives behind for a week to focus on NFRC, and I know it's particularly difficult given the current economic climate.

So thank you for coming to San Antonio, and as always....

¡Gracias para todo usted hace!

Joseph A. Hayden

Joseph A. Hayden
NFRC Chairman



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NFRC's Fall Meeting: SPECIAL NOTES

Meeting Hotel:

Sheraton Gunter Hotel, San Antonio, Texas

(<http://tinyurl.com/nfrc-fall-09>)

205 East Houston Street

San Antonio, Texas 78205

210- 227-3241* Reservations (online above) or 1-888-999-2089

Monday, November 16, 2009

Meetings start 7:30 a.m.: The NFRC will host a new member orientation followed by task group meetings throughout the morning in the Crystal Ballroom and the Blue Bonnet Room – both located on the second floor of the hotel. Committees will then get a start on the week, beginning at 2:00 p.m. with the Regulatory Affairs and Marketing Committee.

NFRC New Member Orientation

First time attendees, new members, and others wanting to learn more about the NFRC programs & processes are encouraged to attend the New Member Orientation being held from 7:30 a.m. to 8:30 a.m. in the main meeting area for the conference – The Crystal Ballroom.

NFRC's Opening Session - Celebrating 20 Years of NFRC

The NFRC's opening session will be held at 1:00 p.m. in the Crystal ballroom following an NFRC hosted luncheon buffet (at 12:00). This session will include an overview from the Chair of the Board, housekeeping by the Executive Director, Chairs' Reports outlining the week's highlighted topics and a presentation featuring one of NFRC's founding members.

Regulatory Affairs and Marketing – welcomes a local *GREEN* trail blazer

Many changes are afoot in Washington, D.C., including changes to the ENERGY STAR® program among other cutting edge legislation influencing consumer behavior, the codes, and our industry as a whole. During Monday's Regulatory Affairs and Marketing (RAM) Committee meeting we'll be sure to address the latest news from across the nation. The afternoon's meeting will also feature a presentation by Anita Ledbetter, executive director of the local and award winning residential building program *Build San Antonio Green*.

Applying Building Information Modeling (BIM) to the NFRC Process

5:00 p.m. - 6:00 p.m.: *Crystal Ballroom*

After the Policy Committee Block concludes for the evening there will be a presentation on the current status of BIM interoperability and how it affects our industry presented by Justin Wong, D. Charlie Curcija, and Peter Lyons.

Special Note: As with all the committees throughout the week, the subcommittees will meet consecutively under their allotted committee block. This may mean that subcommittee meetings scheduled for one day could be moved to the day before if time allows. (Watch for this with the split Technical block November 17 and 18.)

Tuesday, November 17, 2009

Celebrate with Us! NFRC's 20th Anniversary Membership Reception: (For ALL Registered Attendees)

5:00 p.m. - 7:00 p.m.: *Ludwig's & Ludwig's Terrace, 2nd floor*

The NFRC warmly invites all registered attendees to enjoy a delicious south-of-the-border themed selection of food, spirits and music at the Tuesday night Member Reception. A streaming presentation celebrating the NFRC's 20th Anniversary as well as a champagne toast will help make the event one not-to-miss. Come join the best & brightest minds in the energy focused fenestration industry for warm fellowship and a celebration of NFRC's remarkable accomplishments.



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**Exterior Attachments / Interior Attachments Task Group
Monday, November 16, 2009**

Attachments Block: 8:30 a.m. – 10:30 a.m.

Chair: *Michael Cienian, Hunter Douglas (Interior Attachments)*
Chair: *Thomas Zaremba, Roetzel & Andress (Exterior Attachments)*

1. Call to Order

- a. Circulate task group interest sheet(s)
- b. Welcome to All AttendeesCell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Unfinished Business

- a. NFRC 100 A ballot discussion
- b. NFRC 200 A ballot discussion
- c. Base Case Windows Discussion
- d. Update on Skylight Table

5. New Business

6. Adjourn

SCOPE

The Exterior Attachments Task Group and Interior Attachments Task Group shall develop and assess procedures for rating exterior and interior fenestration attachments.



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Awning Task Group

Monday, November 16, 2009

Attachments Block: 8:30 a.m. – 10:30 a.m.

Chair: *John Gant, Glen Raven*

1. Call to Order

- a. Circulate task group interest sheet(s)
- b. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Unfinished Business

- a. Master Category List Status

5. New Business

- a. Awning Research Report - Dr. Ross McCluney

6. Adjourn

SCOPE

The Awning Task Group shall develop and assess procedures for rating non-coplanar projecting awning fenestration attachment products.

Committee Chain: * Technical Committee * Attachments Subcommittee * Awning Task Group
NFRC Staff Liaison: John W. Lewis, Jr., Sr. Mgr, Business Development and Outreach, jlewis@nfrc.org



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Dynamic Attachments for Swinging Doors Task Group

Monday, November 16, 2009

Attachments Block: 8:30 a.m. – 10:30 a.m.

Chair: *Dave De Block, ODL, Inc.*

1. Call to Order

- a. Circulate task group interest sheet(s)
- b. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Unfinished Business

- a. NFRC 100 ballot
- b. NFRC 200 ballots

5. New Business

6. Adjourn

SCOPE

The Dynamic Attachments for Swinging Doors Task Group mission is to do what is required, using recognized science and NFRC published procedures to accurately define, rate and label thermal performance characteristics of Dynamic Attachments for Swinging Doors.

Committee Chain: * Technical Committee * Attachments Subcommittee * *Dynamic Attachments for Swinging Doors Task Group*
NFRC Staff Liaison: *John W. Lewis, Jr., Sr. Mgr, Business Development and Outreach, jlewis@nfr.org*



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Storm Window Task Group

Monday, November 16, 2009

Attachments Block: 8:30 a.m. – 10:30 a.m.

Chair: *Thomas Zaremba, Roetzel & Andress*

1. Call to Order

- a. Circulate task group interest sheet(s)
- b. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Unfinished Business

- a. Continued development of Base Case Windows for use with Attachments

5. New Business

6. Adjourn

SCOPE

Develop a technical procedure, corresponding PCP language and a label for certifying and labeling storm windows as fenestration attachments.

Committee Chain: * Technical Committee * Attachments Subcommittee * Storm Window TG
NFRC Staff Liaison: John W. Lewis, Jr., Sr. Mgr, Business Development and Outreach, jlewis@nfr.org



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Applied Film Task Group

Monday, November 16, 2009

Attachments Block: 8:30 a.m. – 10:30 a.m.

Chair: *Darrell Smith, International Window Film Assoc.*

1. Call to Order

- a. Circulate task group interest sheet(s)
- b. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Unfinished Business

- a. NFRC 100 ballot on Applied Films
- b. NFRC 200 ballot on Applied Films
- c. NFRC 700 ballot on Applied Films

5. New Business

6. Adjourn

SCOPE

The Applied Film Task Group shall develop and assess procedures for rating of applied films.

Committee Chain: * Technical Committee * Attachments Subcommittee * *Applied Films Task Group*
NFRC Staff Liaison: *John W. Lewis, Jr., Sr. Mgr, Business Development and Outreach, jlewis@nfr.org*



PCP/Labeling/Optical Properties for Attachments Task Groups

Monday, November 16, 2009

Attachments Block: 8:30 a.m. – 10:30 a.m.

Chair: *Tom Morrissey, Hunter Douglas*

Co-Chair: *Michael Cienian, Hunter Douglas*

1. Call to Order

- a. Circulate task group interest sheet(s)
- b. Welcome to All AttendeesCell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Unfinished Business

- a. PCP Task Group – Request for new members
 - i. Review Scope Statement
- b. Labeling Task Group – Request for new members
 - i. Review Scope Statement
- c. Optical Properties Task Group – Update on recent activities
 - i. Review Scope Statement

5. New Business

6. Adjourn

SCOPE

The Scope of these task groups will be developed during the November Membership Meeting.



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Meeting Notes:



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Door Task Group

November 16, 2009

8:30 a.m. – 10:00 a.m.

Co-Chair: *Steve Jaspersen, Therma-Tru*

Co-Chair: *Dave DeBlock, ODL, Inc.*

1. Call to Order

- a. Circulate task group interest sheet
- b. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Unfinished Business

- a. None

5. New Business

- a. Definitions and the PCP language for Exterior Door Systems
- b. Simulation Standardization
- c. Other Business

6. Adjourn

SCOPE

The Door Task Group shall report to the U-Factor subcommittee and shall provide a forum for discussion and forwarding of proposals to develop or improve the simulation and testing methods and ratings, and certification and labeling procedures for exterior doors.



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Meeting Notes:



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Garage Door/Rolling Door U-Factor Task Group

November 16, 2009

10:00 a.m. – 10:30 a.m.

Chair: *Joseph R. Hetzel, P.E., DASMA Technical Director*

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. If interested in joining task group, contact chair.

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Unfinished Business

- a. DASMA Research Project
 - i. Phase 1: Affirming new NFRC 100/102 provision
 - ii. Phase 2: Evaluating vertical jamb hardware
 - iii. Phase 3: Simulation of common garage door and rolling door sizes
- b. Simulation manual details

5. New Business

- a. Standard NFRC insulation values vs. manufacturer-published values
- b. Other

6. Adjourn

MISSION

To verify suitable and repeatable U-factor testing and simulation provisions for garage doors and rolling doors.

SCOPE

To evaluate available data or conclusions from use of testing and simulation methods, and to draft recommended modifications to such methods, if needed, for review by the NFRC U-Factor Subcommittee.

Committee Chain: * Technical Committee * U-Factor Subcommittee * Garage Door/Rolling Door U-Factor Task Group
NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager* danderson@nfrc.org



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Garage Door SHGC Task Group

November 16, 2009

10:30 a.m. – 11:00 a.m.

Chair: *Joseph R. Hetzel, P.E., DASMA Technical Director*

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. If interested in joining task group, contact chair.

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. New Business

- a. Proposed Task Group Mission: "To verify suitable and repeatable Solar Heat Gain Coefficient (SHGC) testing and calculation provisions for garage doors."
- b. Proposed Task Group Scope: "To draft a recommended method of calculating garage door SHGC for inclusion in NFRC 200, and to evaluate the method of testing as per NFRC 201 and drafting recommended revisions as needed, all subject to review as necessary by the NFRC SHGC Subcommittee."
- c. Balloting of proposed changes to NFRC 200
- d. NFRC 201 applicable content
- e. Other

5. Adjourn

SCOPE

TBD

MISSION

TBD

Committee Chain: * Technical Committee * U-Factor Subcommittee * *Garage Door SHGC Task Group*
NFRC Staff Liaison: *Dennis Anderson, Laboratory Accreditation Program Manager** danderson@nfrc.org



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PCP Review Task Group

Monday, November 16, 2009

10:30 a.m. – 11:30 a.m.

Chair: *Tina Jenkins, Simonton Windows*

1. Call to Order

- a. Circulate task group interest sheet
- b. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Business

- a. 2009 Fall PCP Review ballots

5. Adjourn

SCOPE

The task group is responsible for maintaining the PCP document.

Committee Chain: * Ratings Committee * Certification Subcommittee * *PCP Review Task Group*
NFRC Staff Liaison: *Sherri Wendt, Certification Associate* * swendt@nfr.org
NFRC Staff Liaison: *Scott Hanlon, Senior Programs Manager* * shanlon@nfr.org



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Tubular Daylighting Devices Task Group

November 16, 2009

11:00 a.m. – 12:00 p.m.

Chair: *Dave DeBlock, ODL, Inc.*

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. If interested in joining task group, contact chair.

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Unfinished Business

- a. A quick overview of the Peer Reviewable Research Report on U-Factor
- b. A status report on complex VT measurements.
- c. Review available sunlight in the US and how that may help define location of simple NFRC VT measurement utilizing complex data from current VT measurement work.

5. New Business

6. Adjourn

SCOPE

The Tubular Daylighting Device Task Group mission is to do what is required, using recognized science and NFRC published procedures to accurately define, rate and label thermal performance characteristics of Tubular Daylighting Devices.

Committee Chain: * Technical Committee * U-Factor Subcommittee * TDD Task Group
NFRC Staff Liaison: Dennis Anderson Laboratory Accreditation Program Manager* danderson@nfr.org



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Product Line ID Task Group

Monday, November 16, 2009

11:30 a.m. – 12:00 p.m.

Chair: *John McFee, Window and Door Manufacturer's Association (WDMA)*

1. Call to Order

- a. Circulate task group interest sheet
- b. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. New Business

- a. Discuss CPD procedures

5. Adjourn

SCOPE

Recommend language changes to the PCP to allow the determination of NFRC Product Line Numbers prior to the issuance of a Certification Authorization Report (CAR)

Committee Chain: * Ratings Committee * Certification Subcommittee * *Product Line ID Task Group*
NFRC Staff Liaison: *Sherri Wendt, Certification Associate * swendt@nfr.org*
NFRC Staff Liaison: *Scott Hanlon, Senior Programs Manager * shanlon@nfr.org*



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NFRC's Fall Membership Meeting OPENING SESSION AGENDA

Monday, November 16, 2009

1:00 p.m. – 2:30 p.m.

Chair: *Joseph Hayden, Pella Corporation*

- 1. NFRC Chairperson's Welcoming Remarks (J. Hayden)**
 - a. Board Discussion Topic:
 - i. "NFRC needs Manufacturer Quality Assurance to ensure Credible Ratings"
- 2. Executive Director's Report (J. Benney)**
- 3. Legal Counsel's report (S. Meza)**
- 4. Committee Chair Reports**
 - a. Accreditation Policy Committee (M. Falke)
 - a. Technical Interpretation Policy Committee (T. Culp)
 - b. Certification Policy Committee (R. Temple)
 - c. Research and Technology Committee (W. Lichtenberger)
 - d. Regulatory Affairs and Marketing Committee (G. Stone)
 - e. Technical Committee (J. Baker)
 - b. Ratings Committee (S. Strawn)
- 5. Guest Speaker – Celebrating 20 Years of NFRC**
- 6. Adjourn**



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Regulatory Affairs and Marketing Committee

Monday November 16, 2009

2:30 p.m. – 4:00 p.m.

Chair: *Garrett Stone, Brickfield, Burchette, Ritts, & Stone, P.C.*

1. Call to Order

- a. Circulate attendance sheet
- b. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines
- e. Review committee voting requirements: one vote per member company listed on the roster.

2. Appoint Recording Secretary (NFRC Staff)

3. Roll call / Establish quorum

4. Approve Minutes from July 2009 meeting in Baltimore, MD

5. Review and approve agenda

6. Reports

- a. Codes
- b. EWC
- c. Legislative Update
- d. Communications Team
- e. CMA Program Update
- f. Compliance Update
- g. International
- h. Other

7. Unfinished Business

8. New Business

9. Adjourn

SCOPE

The Regulatory Affairs and Marketing Committee is responsible for:

- *Developing and coordinating NFRC's relationship with and the use of NFRC's ratings by Federal, state, and local government, international rating organizations, code development, professional and trade organizations and other voluntary programs; and*
- *Developing and coordinating all NFRC communications, newsletter, publications, press releases, and other informational and educational materials and projects.*

*NFRC Staff Liaison: Tom Herron, Marketing & Communications Manager *therron@nfr.org*



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Regulatory Affairs & Marketing Committee Roster*

First Name	Last Name	Company Name
Mark	Cody	AGC Flat Glass North America, Inc.
Lisa	Winckler	AIMCAL - Window Film Committee
Nils	Petermann	Alliance to Save Energy
Chuck	Anderson	American Architectural Manufacturers Association (AAMA)
Joe	Jonely	Amsco Windows
Steve M.	Johnson	Andersen Corporation
Mike	Thoman	Architectural Testing, Inc.
Steve	Harp	Associated Materials, Inc.
Roland	Temple	AZS Consulting, Inc.
Travis	Windleharth	Bekaert Specialty Films
Thomas	Culp	Birch Point Consulting LLC
Garrett A.	Stone	Brickfield, Burchette, Ritts, & Stone, P.C.
Nelson	Pena	California Energy Commission
James	Larsen	Cardinal Glass Industries, Inc.
Charlie	Curcija	CARLI, Inc.
Kerry	Haglund	Center for Sustainable Building Research
Joe	Hetzel	DASMA (Door & Access Systems Manufacturers Assoc. International)
Tracy	Rogers	EdgeTech, I.G., Inc.
Gurjinder	Dhami	ETC Laboratories, Inc.
John	Gant	Glen Raven, Inc.
Michael	Cienian	Hunter Douglas, Inc.
Lucas	Turner	Hurricane Testing Laboratories
Darrell	Smith	International Window Film Association (IWFA)
Steve	Strawn	Jeld-Wen, Inc.
Marcia	Falke	Keystone Certifications, Inc.
Krish	Kudva	Kinro, Inc.
Robin	Mitchell	Lawrence Berkeley National Laboratory (LBNL)
Jim	Krahn	Marvin Windows & Doors
Kevin	Vilhauer	Milguard Manufacturing, Inc.
David A.	De Block	ODL Incorporated
John	Grant	PAMA
Joseph	Hayden	Pella Corporation
David L.	Duly	Pilkington North America, Inc.
Scott	Widmer	ProVia Door, Inc.
Marles	McDonald	Quality Testing, Inc.



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Regulatory Affairs & Marketing Committee Roster continued

First Name	Last Name	Company Name
Thomas S.	Zaremba	Roetzel & Andress
Marvin	Stover	Royal Group
Tina	Jenkins	Simonton Windows
Julia	Schimmelpenningh	Solutia, Inc.
Susan	Manwaring	Speyer Door & Window, Inc.
Mike	Manteghi	TRACO
Werner	Lichtenberger	TruSeal Technologies, Inc.
Roger	LeBrun	Velux America, Inc.
Dan	Wacek	Viracon
Jeff	Baker	WESTLab
Bipin	Shah	WinBuild Inc.
John	McFee	Window and Door Manufacturer's Association (WDMA)

**Committee Membership requires members to sign up onsite at meeting for inclusion on roster/voting rights.
Please note if two consecutive meetings are missed without a voting representative signing the onsite roster – company will be dropped and interested parties must sign up once again.
If you notice a problem – PLEASE contact the staff of NFRC as soon as possible. Discrepancies cannot be addressed at the meeting: meetings@nfr.org*

Meeting Notes:



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****DRAFT MINUTES****

Regulatory Affairs and Marketing Committee

Monday July 20, 2009

2:00 p.m. – 4:00 p.m.

Chair: *Garrett Stone, Brickfield, Burchette, Ritts, & Stone, P.C.*

-
1. **The chair called the meeting to order @ 2.10 pm**
 2. **Ray McGowan (staff) appointed recording secretary**
 3. **Roll call conducted and quorum established**
 4. **Minutes approved from March 2009 meeting in Tucson, AZ.**
 5. **Reports**
 - a. Codes-Garrett Stone of BBRS presenting
 - i. IECC 09 changes:
 1. Lower SHGC and U-factor in southern zones
 2. Improved performance path
 3. 10 to 15% more efficient over IECC 06
 - ii. IECC 12 potential changes
 1. 15 to 20% improvement expected
 2. Improved fenestration requirements expected
 3. Window area reduction potential
 - iii. IECC-commercial
 1. Limited fenestration changes
 2. NFRC ratings continue to be only ratings
 - iv. ASHRAE 90.1 lowering fenestration energy efficiency levels significantly
 - v. ARRA requires most recent IECC and ASHRAE 90.1-07 and show 90% compliance over 8 years.
 1. 49 states accepted and are proposing plans to comply
 - b. Efficient Windows Collaborative-John Carmody of University of Minnesota presenting
 - i. 25,000 to 40,000 views each month on www.efficientwindows.org
 - ii. Current three year contract with DOE ending soon.
 - c. US DOE-ENERGY STAR, Alice Dasek of D&R International presenting
 - i. Updated ENERGY STAR criteria becomes effective 1/4/10. Transition period ends March 31, 2010.
 - ii. Partners must re-qualify to ensure updated records by March 31, 2010 to remain in program.
 - iii. Next ENERGY STAR revision may become effective in 2014, analysis may begin later this year.
 - iv. ENERGY STAR commercial program being considered, but no formal announcement planned.
 - d. International, Ray McGowan (staff) presenting
 - i. Canadian authorities will consider a national energy code
 - ii. WinBuild has been working actively in these countries:
 1. South Africa-thermal test chamber inspected
 2. India-thermal chamber funding secured
 3. China-continued work towards harmonization
 4. Jordan-regional energy efficiency effort underway including NFRC ratings
 - iii. Dr. Charlie Curcija of Carli attended ISO TC 163 meeting in Netherlands in March
 - iv. Jim Benney, NFRC Executive Director of NFRC, presented at the Glass Performance Days event in Tampere, Finland



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- v. NFRC staff is working on a DOE proposal to extend the cooperative agreement through 2014
- e. Communications Team, Leonard Greenberger of Potomac Communications Group
 - i. NFRC has a new exhibit
 - ii. NFRC operating blog during this meeting
 - iii. Retailer program is resurrected putting literature directly into window retailers.
- f. CMA Program, John Lewis (staff)
 - i. CMA, or component modeling approach, overview presented
 - ii. The new CMA program will generate the same U-factors, SHGC, and VTs as the existing ratings.
 - iii. CMAST, component modeling approach software tool, is available online now
 - iv. Next release of CMAST will be 10/30/09
 - v. CMA Marketing underway:
 - 1. To code officials
 - 2. To energy service providers
 - 3. Hershone Mahone Group awarded these two projects
- g. Legislative Update, Melissa Shannon of Kountoupes Consulting
 - i. Numerous energy efficiency provisions in ARRA
 - ii. Green Buildings Caucus formed
 - 1. chairs: Carnahan, Biggert
 - 2. 27 members
 - iii. ACES or American Clean Energy and Security Act or Waxman-Markey bill
 - 1. Passed in house, party line
 - 2. Provisions
 - a. Cap and trade
 - b. \$110 billion of energy efficiency efforts
 - c. Establish national energy code
 - d. Monies for energy efficient retrofit activity
 - e. Amends ENERGY STAR program requiring A to F grades
 - iv. Separate Senate Climate bill being put forward
 - 1. Many energy efficiency items included
 - v. Passage of either House or Senate bill uncertain

6. Meeting adjourned at 4.10 pm.

Meeting Notes:



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Accreditation Policy Committee

Monday, November 16, 2009

Under Policy Committee Block: 4:00 p.m. – 5:00 p.m.

Chair: Marcia Falke, Keystone Certification Inc.

Vice Chair: Werner Lichtenberger, TruSeal Technologies, Inc.

1. Call to Order

- a. Circulate attendance sheet
- b. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines
- e. Review committee voting requirements: one vote per voting Policy Committee member listed on the roster.

2. Roll call / Establish quorum

3. Appoint Recording Secretary (NFRC Staff)

4. Review and approve agenda

5. Reports

- a. Simulation Lab Inspection status
- b. Test Lab Inspection status
- c. Interlaboratory Simulation status
- d. Interlaboratory Test Lab status
- e. APC Task Spreadsheet

6. Unfinished Business

- a. LAP Workshops
- b. Window 6 / Therm 6 Training

7. New Business

- a. CMA ASL Training Update
- b. LAP document updates

8. Adjourn

SCOPE

The NFRC Accreditation Policy Committee oversees NFRC's Laboratory Accreditation Program (LAP), including:

- *Issuing policy interpretations related to laboratory accreditation;*
- *Ruling on appeals properly brought pursuant to the LAP;*
- *Recommending modifications to the NFRC LAP; and*
- *Grants final approval of accreditation of testing and simulation laboratories*

*NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager * danderson@nfr.org*
*NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org*



NFRC 2009 Fall Membership Meeting
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Accreditation Policy Committee Roster

First Name	Last Name	Company Name	
Marcia	Falke	Keystone Certifications, Inc.	
Tom	Culp	Birch Point Consulting, LLC	
Joseph	Hayden	Pella Corporation	
Werner	Lichtenberger	TruSeal Technologies, Inc.	
Brad	Schultz	Associated Laboratories, Inc.	
Bipin	Shah	WinBuild Inc.	
Jackie	Campbell	WESTLab	Below this line...non-voting
Gurjinder	Dhami	ETC Laboratories, Inc.	
Mahabir	Bhandari	Carli, Inc	
Michael	Resech	Architectural Testing, Inc.	

Meeting Notes:



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Technical Interpretation Policy Committee

Monday, November 16, 2009

Under Policy Committee Block: 4:00 p.m. – 5:00 p.m.

Chair: Tom Culp, BirchPoint Consulting

Vice Chair: Randy VanVoorst, Quality Testing, Inc.

1. Call to Order

- a. Circulate attendance sheet
- b. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines
- e. Review committee voting requirements: one vote per voting Policy Committee member listed on the roster.

2. Roll call / Establish quorum

3. Appoint Recording Secretary (NFRC Staff)

4. Review and approve agenda

5. Reports

- a. Actions taken during conference calls or via ballots since July 2009

6. Unfinished Business

7. New Business

8. Adjourn

SCOPE

The NFRC Technical Interpretations Policy Committee (TIPC) will provide oversight and clarification toward the implementation of NFRC's Technical Procedures. Its mission includes, but is not limited to:

- *Developing Technical Interpretations to any adopted NFRC Technical Procedure, or which cross cut Technical Procedures, with input from interested members and program participants and consistent with the intent of the original procedure(s);*
- *Reviewing Technical Memorandums of technical questions from program participants which do not require TIs, as decided by the TIPC;*
- *Working with staff and the Technical Committee to ensure that the Simulator's Workbook is current and consistent with adopted procedures and TIs.*

*NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager * danderson@nfr.org*



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Certification Policy Committee

Monday, November 16, 2009

Under Policy Committee Block: 4:00 p.m. – 5:00 p.m.

Chair: Roland Temple, AZS Consulting

Vice Chair: Brad Schultz, Associated Laboratories, Inc.

1. Call to Order

- a. Circulate attendance sheet
- b. Welcome to All AttendeesCell phones & pagers to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines
- e. Review committee voting requirements: one vote per voting Policy Committee member listed on the roster.

2. Roll call / Establish quorum

3. Appoint Recording Secretary (NFRC Staff)

4. Review and approve agenda

5. Report

- a. Staff report

6. Unfinished Business

- a. None

7. New Business

- a. Discussion on IG Certification

8. Adjourn

SCOPE

The NFRC Certification Policy Committee will provide oversight to the implementation of NFRC's Product Certification Program including, but not limited to:

- *Responding to requests for certification policy interpretation*
- *Ruling on appeals related to product certification matters*
- *Making recommendations to the Board of Directors on appeals related to IA certification.*
- *Making recommendations for amendments to the NFRC Product Certification Program*

*NFRC Staff Liaison: Sherri Wendt, Certification Associate * swendt@nfr.org
NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org*



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Certification Policy Committee Roster

First Name	Last Name	Company Name
Roland	Temple	AZS Consulting, Inc.
Brad	Schultz	Associated Laboratories, Inc.
James C.	Krahn	Marvin Windows & Doors
Steve	Strawn	Jeld-Wen, Inc.
Jeff	Baker	WESTLab
Bipin	Shah	WinBuild, Inc.

Meeting Notes:



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Thermophysical Properties of Materials Subcommittee

Tuesday, November 17, 2009

Under Research & Technology Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: *Charlie Curcija, Carli, Inc.*

1. Call to Order

- a. Welcome to All AttendeesCell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Approve Minutes from July 2009 meeting in Baltimore, MD

4. Review and approve agenda

5. Reports

- a. Thermophysical Properties Peer Review (Ray McGowan)
- b. Thermophysical Properties ILC status-(Ray McGowan)
- c. Electronic database for thermophysical properties
- d. NFRC 101 and 103 TG (Peter Lyons)

6. Unfinished Business

7. New Business

- a. NFRC 101 ballot

8. Adjourn

SCOPE

The Thermophysical Properties of Materials Subcommittee is responsible for developing and maintaining NFRC 101 and NFRC 103. It is also responsible for the review and approval of the submitted data in accordance with these documents. This subcommittee reports to the Research and Technology Committee.



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*****DRAFT MINUTES*****

Thermophysical Properties of Materials Subcommittee

Tuesday, July 21, 2009

Under Research & Technology Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: Charlie Curcija, Carli, Inc.

1. Meeting called to order

2. Jessica Ferris appointed recording secretary.

3. Reports

- a. Thermophysical Properties Peer Review-Ray McGowan – 3 submissions; one under current peer review.
- b. Ray McGowan (staff) reported the Thermophysical Properties ILC is moving slowly. Labs have had some financial difficulties completing work.
- c. NFRC 101 and 103 TG (Peter Lyons) – Discussed negatives on the ballot.

4. New Business

a. NFRC 101 Ballot discussion

1. **ATI negative-MOTION:** B. Shah/R. Temple moved to modify Section 5.4 to read: The density of the materials shall be determined by dividing its weight by its volume. The density of the polymer/plastic based materials may be measured using ASTM D792, ASTM D1505, ASTM D4883, ISA 1183-1, ISO 1183-2, or ISO 1183-3. The density of the timber based materials may be measured using ASTM D2395. The density of fine aggregates may be measured using ASTM C128. For other materials and methods not mentioned here, the density measurement method used shall be fully described, referenced, and reported. Motion passes by voice vote. 1 disapprove.

2. **Andersen** negative withdrawn.

3. **Cardinal negative-MOTION:** J. Larson/B. Shah moved to find the Cardinal negative persuasive and substantive with direction to send NFRC 101 back to TG for review and to develop one appendix of generic materials from existing appendices A and B. 19-0-5. Motion passes. NFRC 101 goes back to task group.

b. **MOTION:** B.Shah/M. Thoman moved to direct TG to reconsider the approach and concept of Appendix C and return a recommendation to the membership. Motion passes by unanimous voice vote.

5. Meeting adjourned at 8:58 AM.



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Glossary and Terminology Task Group

Tuesday, November 17, 2009

Under Research & Technology Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: Charlie Curcija, Carli, Inc.

1. Call to Order

- a. Circulate task group interest sheet
- b. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines

2. Appoint Recording Secretary (Task Group Participant)

3. Review and approve agenda

4. Unfinished Business

- a. Hyperlinked glossary and other improvements to NFRC 600

5. New Business

- a. NFRC 600-Glossary and Terminology Ballot

6. Adjourn

SCOPE

To maintain a glossary of NFRC terms and maintain the document at the request of the Research and Technology committee.



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Draft Minutes

NFRC 600-Glossary and Terminology Task Group

Tuesday, July 21, 2009

Under Research & Technology Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: Charlie Curcija, Carli, Inc.

-
1. Meeting called to order at 9:00 AM
 2. Jessica Ferris (staff) appointed recording secretary
 3. New Business
 - a. NFRC 600-Glossary and Terminology Ballot
 - a. Negatives
 1. **MOTION:** M. Thoman/J. Hayden moved to find Birchpoint Consulting negative persuasive and substantive, and return to the original definitions in document. 6-0. Motion passes.
 2. ATI and Andersen negative withdrawn based on previous action.
 3. **MOTION:** B. Shah/S. Kumar to find Cardinal negative non-persuasive and to direct the task group to add a cross-section reference identifying relevant documents using specific definitions. Motion passes by unanimous voice vote.
 4. **MOTION:** J. Hayden/B. Shah moved to find Pella negative substantive and persuasive and also recommend to the CMA Technical SC to reconsider the term double-sash product window as used in Section 5.6 of NFRC 100. Motion passes by unanimous voice vote.
 5. **MOTION:** S. Strawn/R. Temple moved to find Jeld-Wen negative persuasive and editorial. Motion passes by unanimous voice vote.
 6. **MOTION:** J. Gant /R. Temple moved to find the Glenraven negative persuasive and editorial. Motion passes by unanimous voice vote.
 - b. Approved with comments:
 1. **MOTION:** R. Simons/R. Temple moved to find Hunter Douglas comment persuasive and editorial but remove the term “roman” from the definition and change “operable” to “non-articulating.” Motion passes by unanimous voice vote.
 2. Sun Pine Consulting approved with comment withdrawn.
 3. **MOTION:** R. Simons/G. Demestre moved to find Alliance to Save approved with comment non-persuasive.
 4. **MOTION:** D. DeBlock/R. Temple moved to remove double sash product definition from the NFRC 600 and forward NFRC 600 document to the Research and Technology Committee for approval. 4-2. Motion passes.
 4. Meeting adjourned at 10:40 AM.



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Research Subcommittee

Tuesday, November 17, 2009

Under Research & Technology Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: Bipin Shah, WinBuild, Inc.

Vice Chair: Rich Biscoe, Architectural Testing, Inc.

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (Staff)

3. Approve Minutes from July 2009 meeting in Baltimore, MD.

4. Review and approve agenda

5. Reports

- a. Research status (staff)
- b. Condensation Resistance Procedure for CMA PMTG (Kevin Vilhauer, Chair – PMTG)
- c. Tubular Daylighting Devices U-factor rating PMTG (Dave De Block, Chair)
- d. Window 6/Therm 6 Validation Research PMTG (Joe Hayden, PMTG)
- e. Complex VT Rating Research Project PMTG (Ross McCluney, Chair)
- f. Attached Awning Ratings Research PMTG (John Gant, Chair)
- g. NFRC 703-Research Program Manual Task Group (John Gant)
- h. Gas Permeability Research, NFRC cosponsoring (Margaret Webb, reporting)

6. Unfinished Business

7. New Business

- a. CMA Research Summary page presentation

8. Adjourn

SCOPE

The Research Subcommittee is to act as a repository for research requests. These requests will be prioritized and recommendations passed to the Research and Technology Committee. The Research Subcommittee is to function as an intermediary for the collection, coordination, and publication of research and test data pertinent to the NFRC organization and its membership. The purpose of this coordinated effort is to provide concise, useful information such as reports of tests in progress and accumulated test results. (Last approved January 8, 2004)

Committee Chain: *Research and Technology Committee * Research Subcommittee
NFRC Staff Liaison: Ray McGowan, Senior Research and Technology Manager * rmcgowan@nfr.org



NFRC 2009 Fall Membership Meeting
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*****DRAFT MINUTES*****

Research Subcommittee

Tuesday, July 21, 2009

Chair: *Bipin Shah, WinBuild, Inc.*

Vice Chair: *Rich Biscoe, Architectural Testing, Inc.*

-
1. Chairman Shah called the meeting to order at 10:35 a.m.
 2. John Lewis (staff) appointed recording secretary
 3. Minutes approved from March 2009 meeting in Tucson, AZ.
 4. Reports
 - a. Ray McGowan (staff) reported the Research Financial Summary status
 - b. **Condensation Resistance Procedure for CMA PMTG** (Kevin Vilhauer, Chair – PMTG) C. Curcija provided update and advised the research has been completed, but the final report is still under development. Willie du Pont moved, Dave DeBlock seconded, to extend deadline to provide research project to November 2009. The motion passed, unanimous voice vote.
 - c. **Tubular Daylighting Devices U-factor rating PMTG** (Dave De Block, Chair) De Block advises the peer review report is not completed and requested the deadline be extended to the end of 2009. DeBlock moved and Natural Lite Energy Savings seconded to delay report through end of 2009. The motion passed, unanimous voice vote.
 - d. **Window 6/Therm 6 Validation Research PMTG** (Joe Hayden, PMTG). W. du Pont provided a presentation on the Project. Joe Hayden reported the report is not complete. Joe Hayden moved and Dave DeBlock seconded to extend the completion date to the November Membership meeting. Motion passed, unanimous voice vote.
 - i. Hayden expressed his displeasure with the ‘unacceptable’ delays with research projects in general, and stated he would not approve further.
 - e. **Complex VT Rating Research Project PMTG** (Ross McCluney, Chair) R. McCluney provided an update on the status of this project stated that the project is moving, but not as quickly he would like. Chairman Shah stated that although there is not a formal deadline for this project, and urged McCluney to proceed with all due haste in the completion of the project. McCluney reviewed Excel spreadsheet data table showing the sky conditions versus SALT (deg.). McCluney requested the Project Monitoring TG to review the testing methodology currently being used. Chairman Shah requested that deadlines be established for this project. DeBlock stated that Velux is non-responsive and this is slowing down the completion of this project. McCluney requested that Solatube, LBNL, and Velux (if they are present) meet during this membership meeting.
 - f. **Attached Awning Ratings Research Bid Review BRTG** (John Gant, Chair) J. Gant provided an update on this matter. J. Gant moved and DeBlock seconded that SunPine Consulting be awarded the contract. J. Hayden asked if there were provisions for penalties for delays in the contract. Chairman Shah requested that such language be considered. M. Thoman cautioned the group that research is not the same as delivering a load of windows to a jobsite. The motion passed 20-1-0.
 5. Unfinished Business



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Optical Properties Subcommittee

Tuesday, November 17, 2009

Under Research & Technology Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: Sneh Kumar, TRACO Inc.

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Approve Minutes from July 2009 meeting in Baltimore.

4. Review and approve agenda

5. Reports

- a. NFRC 302 TG
- b. Non-planar Simulation TG - Charlie Curcija
- c. Attachment optical properties TG - Tom Morrissey
- d. Optical Property Priorities TG-Carlos McEntire
- e. ISO activity-Mike Rubin/Ray McGowan

6. Unfinished Business

7. New Business

8. Adjourn

SCOPE

The Optical Properties Subcommittee shall be responsible for determining, reviewing, and maintaining solar optical properties data for glazing materials and systems for use in NFRC procedures. The Optical Properties Subcommittee shall report to the Research and Technology Committee.

Committee Chain: *Research and Technology Committee * Optical Properties Subcommittee
NFRC Staff Liaison: Ray McGowan, Senior Research and Technology Manager * rmcgowan@nfr.org



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DRAFT MINUTES

Optical Properties Subcommittee

Tuesday, July 21, 2009

Under Research & Technology Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: *Sneh Kumar, TRACO Inc.*

1. **John Lewis (NFRC Staff) appointed recording secretary**
2. **Minutes from March 2009 Tucson, AZ meeting approved as presented.**
3. **Agenda reviewed and approved.**
4. **Reports**
 - a. Non-planar Simulation TG - Charlie Curcija reported no activity.
 - b. Attachment optical properties TG - Tom Morrissey reported no activity.
 - c. Bipin shah reported that the implementation of new solar spectrum ASTM G197 will be considered after ISO 9050 standard development.
5. **New Business**
 - a. NFRC 304 ballot
 - i. WinBuild moved and AZS seconded to find the Cardinal negative persuasive and editorial moving the “appendix a” reference into the main document (remove appendix, update URL). Passed by unanimous voice vote.
 - b. Motion to approve changes to NCFR 304-2009 document. Motion passed by unanimous voice vote.
 - c. Sneh Kumar brought up OPSC priorities presentation and a Task group was formed under the chairman ship of Carlos McIntyre. The TG will consider the OPSC priorities and make recommendations to membership.
6. **Adjournment**

Meeting Notes:



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Research & Technology Committee

Block Period: Tuesday, November 17, 2009 7:30 a.m. – 12:30 p.m.

Chair: *Werner Lichtenberger, TruSeal Technologies*

Vice Chair: *Dave DeBlock, ODL Inc.*

1. Call to Order

- a. Circulate attendance sheet
- b. Welcome to All AttendeesCell phones & pagers to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines
- e. Review committee voting requirements: one vote per member company listed on the roster

2. Appoint Recording Secretary (NFRC Staff)

3. Roll call / Establish quorum

4. Approve Minutes from July 2009 meeting in Baltimore, MD

5. Review and approve agenda

6. Reports

- a. Research SC-Bipin Shah
- b. Optical Properties SC-Sneh Kumar
- c. Thermophysical Properties SC-Charlie Curcija
- d. Glossary and Terminology TG-Charlie Curcija

7. Unfinished Business

8. New Business

9. Adjourn

SCOPE

The Research and Technology Committee shall be responsible for developing and maintaining accurate technical data used to support the NFRC rating procedures. The committee shall have responsibility over the following specific areas:

- *Optical Properties*
- *Technical Research*
- *Thermophysical Properties*
- *Long Term Energy Performance Research*
- *Glossary*

The Research and Technology Committee shall report to the Board of Directors.

[Last approved January 8, 2004]

*NFRC Staff Liaison: Ray McGowan, Senior Research and Technology Manager * rmcgowan@nfr.org*



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Research & Technology Committee Roster*

First Name	Last Name	Company Name
Lisa	Winckler	AIMCAL - Window Film Committee
Frank	Fischer	Arcadia, Inc.
Michael J.	Thoman	Architectural Testing, Inc.
Brad	Schultz	Associated Laboratories, Inc.
Steve	Harp	Associated Materials, Inc.
Travis	Windleharth	Baekert Specialty Film LLC
Thomas	Culp	Birch Point Consulting LLC
Nelson	Pena	California Energy Commission
James	Larsen	Cardinal Glass Industries, Inc.
Charlie	Curcija	CARLI, Inc.
Tracy	Rogers	Edgetech I.G., Inc.
Morgan	Hanam	Enermodal Engineering Limited
Gurjinder	Dhami	ETC Labs
John	Gant	Glenraven, Inc.
Robert	Simons	Hunter Douglas, Inc.
Lucas	Turner	Hurricane Test Lab
Margaret	Webb	Insulating Glass Manufacturers Alliance (IGMA)
Darrell	Smith	International Window Film Association (IWFA)
Steve	Strawn	Jeld-Wen, Inc.
Christian	Kohler	Lawrence Berkeley National Laboratory (LBNL)
James C.	Krahn	Marvin Windows & Doors
Kevin	Vilhauer	Milgard Manufacturing
David A.	De Block	ODL Incorporated
Joseph	Hayden	Pella Corporation
Peter	Lyons	Peter Lyons and Associates
David L.	Duly	Pilkington North America, Inc.
Scott	Widmer	ProVia Door, Inc.
Marles	McDonald	Quality Testing, Inc.
Tina	Jenkins	Simonton Windows
Paul	Jaster	Solatube, Inc.
Julia	Schimmelpenningh	Solutia, Inc.
Ross	McCluney	Sun Pine Consulting, Inc.
William C.	du Pont	Sunergy Consulting
Mike	Manteghi	TRACO
Werner	Lichtenberger	TruSeal Technologies, Inc.
Roger	LeBrun	Velux-America, Inc.



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****DRAFT MINUTES****

Research & Technology Committee

Chair: *Werner Lichtenberger, TruSeal Technologies*

Vice Chair: *Dave DeBlock, ODL Inc.*

-
1. Chairman Lichtenberger called the meeting to order at 12:28 p.m.
 2. John Lewis, NFRC Staff, appointed recording secretary
 3. Roll call taken and quorum was established.
 4. Minutes approved from March 2009 meeting in Tucson, AZ.
 5. Reports
 - a. Research SC-Bipin Shah
 - i. Motion: B. Shah moved and DeBlock seconded to approve the motions made during his subcommittee meeting to extend the delivery dates on the various projects. Motion passed by unanimous voice vote.
 - ii. Motion: B. Shah moved, seconded to approve and award the Attached Awing Research project bid from SunPine Consulting. Motion passed unanimous voice vote.
 - iii. B. Shah moved, DeBlock seconded to approve the funding request from IGMA for \$7,500 cost share of IG Gas Permeability Research Project. IGMA must continue to provide NFRC membership with updates at each Membership Meeting until the project is complete. Motion passed by voice vote, with one abstention.
 - b. Optical Properties SC-Sneh Kumar
 - i. S. Kumar provided update of his group's activities. S. Kumar moved and B. Shah seconded to approve NFRC 304-2009 with editorial changes and implement with all other 2009 documents. Motion passed by voice vote with one abstention.
 - c. Thermophysical Properties SC-Charlie Curcija
 - i. No action items.
 - d. Glossary and Terminology TG-Charlie Curcija
 - i. Motion: C. Curcija moved and Robert Simon seconded to approve NFRC 600-2009 as revised during the subcommittee meeting. Motion passed unanimous voice vote.
 6. Meeting adjourned at 12:54 p.m.



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Software Subcommittee

Tuesday, November 17, 2009

Under Technical Committee Block: 2:00 p.m. – 5:00 p.m.*

Chair: Brian Crooks, Cardinal Glass Industries, Inc.

Vice Chair: Jim Krahn, Marvin Windows & Doors

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from July 2009 meeting in Baltimore, MD.

5. Reports

- a. WINDOW 6/ THERM 6 Approval TG – Joe Hayden
- b. CMAST Approval TG – Dan Wacek

6. Unfinished Business

- a. None

7. New Business

- a. None

8. Adjourn

SCOPE

The scope of the Software Subcommittee is to:

- *Develop guidelines for the development of software tools and their documentation as used in NFRC ratings;*
- *Review and prioritize software development requests;*
- *Provide oversight for software development efforts; and*
- *Develop and maintain software acceptance criteria.*

The purpose of this effort is streamlined, robust, accurate and well documented software that fulfills NFRC core mission.

This subcommittee reports to the Technical Committee.

* Subcommittees under the Technical Block will run consecutively as time allows; groups listed on the schedule will go in order, but date/time is not guaranteed.

*Committee Chain: Technical Committee * Software Subcommittee
NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org
Dennis Anderson, Laboratory Accreditation Program Manager * danderson@nfr.org*



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*****DRAFT MINUTES*****

Software Subcommittee

Tuesday, July 21, 2009

Under Technical Committee Block: 2:00 p.m. – 5:00 p.m.

Chair: Brian Crooks, Cardinal Glass Industries, Inc.

Vice Chair: Jim Krahn, Marvin Windows & Doors

1. Brian Crooks called the meeting to order at 2:16 PM
 - a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
 - b. Antitrust reminder
 - c. NFRC Meeting Guidelines
 - d. Review subcommittee voting requirements: one vote per member company
2. Sherri Wendt (NFRC Staff) Appointed Recording Secretary
3. Agenda was reviewed and approved
4. Minutes from March 2009 meeting in Tucson, AZ were approved
5. **Reports**
 - a. WINDOW 6/ THERM 6 Approval TG – Joe Hayden
 - i. Presentation was conducted showing the progress to date of this TG’s activities.
 - b. CMAST Approval TG – Dan Wacek
 - i. Presentation was conducted showing the progress to date of this TG’s activities.
 - ii. Motion that the Software SC recommend CMAST approval including W6/T6 for use in CMA Pilot Program contingent on the Board approval of the final CMAST validation and comparison study report. D.Wacek/B.Shah Motion Passes (Ayes 15 / Nays 5 / Abstains 14)
 1. C.Curjia presented comparison of CMAST calculations to support the motion.
6. **Unfinished Business**
 - a. None
7. **New Business**
 - a. None
8. **Adjourn at 3:29 PM**

Meeting Notes:



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Condensation Resistance Subcommittee

Tuesday, November 17, 2009

Under Technical Committee Block: 2:00 p.m. – 5:00 p.m.*

Chair: Kevin Vilhauer, Milgard Manufacturing, Inc.

Vice Chair: Steve Harp, Associated Materials, Inc.

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from July 2009 meeting in Baltimore, MD.

5. Reports

- a. AAMA CRF Correlation
- b. Condensation Resistance discussion with CSA working group

6. New Business

7. Adjourn

SCOPE

The Condensation Resistance Subcommittee is responsible for developing and coordinating NFRC 500: Procedure for Determining Fenestration Product Condensation Resistance Values and NFRC 500UG: The User Guide. The Condensation Resistance Subcommittee reports to the Technical Committee.

* Subcommittees under the Technical Block will run consecutively as time allows; groups listed on the schedule will go in order, but date/time is not guaranteed.

*Committee Chain: * Technical Committee * Condensation Resistance Subcommittee
NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org
Dennis Anderson, Laboratory Accreditation Program Manager * danderson@nfr.org*



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Draft Minutes

Condensation Resistance Subcommittee

Wednesday, July 22, 2009
Under Technical Committee Block: 7:30 a.m. – 12:30 p.m.
Chair: *Kevin Vilhauer, Milgard Manufacturing, Inc.*
Vice Chair: *Steve Harp, Associated Materials, Inc.*

1. Meeting called to order

- a. Welcome to All AttendeesCell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Recording secretary appointed (Jessica Ferris)

3. Agenda reviewed and approved

4. Minutes from March 2009 meeting in Tucson, AZ approved as presented.

5. Reports

- a. Review of ballot to accommodate WINDOW6 and THERM6 (W6/T6) software

MOTION: J. Hayden / T. Rygg moved to forward the ballot to the Technical Committee for approval.
Passed by unanimous voice vote

- b. Condensation Resistance discussion with CSA working group – Work in progress; won't meet again until November more than likely. Anything to report prior to that will be provided to Chair prior to November meeting.
- c. CR for CMA – C. Curcija – completed research and is getting report together at this time. Findings are very promising. Recommends that discussions begin at next meeting. Will put together presentation of report in November. Jeff Baker would like to take this presentation to CSA meeting in November as well for information sharing purposes only.

6. New Business - None

7. Meeting adjourned at 9:58 AM

Meeting Notes:



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Attachments Subcommittee

Tuesday, November 17, 2009

Under Technical Committee Block: 2:00 p.m. – 5:00 p.m.*

Chair: Michael Cienian, Hunter Douglas

1. Call to Order

- a. Circulate task group interest sheet
- b. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines
- e. Review subcommittee voting requirements: one vote per member company listed on the roster.

2. Appoint Recording Secretary (NFRC Staff)

3. Roll call / Establish quorum

4. Approve Minutes from July 2009 meeting in Baltimore, MD.

5. Review and approve agenda

6. Reports

- a. Dynamic Attachments for Swinging Door TG – D. DeBlock
- b. Exterior / Interior Attachment TG – T. Zaremba / M. Cienian
- c. Storm Windows TG – T. Zaremba
- d. Awnings TG – J. Gant
- e. Applied Films TG – D. Smith
- f. PCP Label Options TG – T. Morrissey

7. Unfinished Business

8. New Business

- a. Review of NFRC 100A Ballot – M. Cienian
- b. Review of NFRC 200A Ballot – M. Cienian

9. Adjourn

SCOPE

The Attachments Sub-committee is responsible for coordinating the development of procedures and ratings categories of attachment products in compliance with the NFRC 100 and 200 documents.

** Subcommittees under the Technical Block will run consecutively as time allows; groups listed on the schedule will go in order, but date/time is not guaranteed

Committee Chain: Technical Committee * Attachments Subcommittee
NFRC Staff Liaison: John Lewis, Senior Manager, Business Development and Outreach * jlewis@nfr.org



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*****DRAFT MINUTES*****

Attachment Subcommittee

Wednesday, July 22, 2009

Under Technical Committee Block: 7:30 a.m. – 12:30 p.m.

Acting Chair: *Michael Cienian, Hunter Douglas*

Vice Chair: *Dave DeBlock, ODL*

-
1. Chair called the meeting to order at 9:45AM EDT - antitrust reminder given and reviewed voting requirements
 2. Chair introduced Michael Cienian of Hunter Douglas as the acting chair.
 3. Scott Hanlon (Staff) appointed recording secretary
 4. Minutes from March 2009 (Tucson, AZ) meeting were approved as presented.
 5. The agenda was reviewed and approved as presented.
 6. Reports
 - a. Applied Films TG – L. Winkler reported that the TG worked on the ballots and will bring forth ballots for the November meeting.
 - b. Awnings – J. Gant reported that the TG will continue to get approval on the research and that the proposals were approved at the Research and Technology Committee.
 - c. Dynamic Attachment for Swinging Doors – D. DeBlock reported that the group will bring forth ballots to simulate and rate half-lites. The TG will bring forth the ballot by the established September 15th deadline date.
 - d. Exterior/Interior Attachments – M. Cienian reported on behalf of conjoined Exterior and Interior Attachments TG that the Attachment ballots were reviewed and discussed and that TG will provide new ballots by the established September deadline.
 - e. Storm Window – T. Zaremba reported that the TG is waiting for the attachment task groups to complete the base case product and will resume work upon completion.
 7. Unfinished Business
 - a. None
 8. New Business
 - a. Attachments in NFRC 100 Ballot – All ballot responses handled by motion.
 - b. Report on Labeling and Certification SC Attachment Task Groups
 - i. T. Morrissey reported that the TG is soliciting participants for the TG to complete and to please provide your business card to staff or the TG chair.
 9. The meeting was adjourned at 9:52 AM EDT



Air Leakage Subcommittee

Tuesday, November 17, 2009

Under Technical Committee Block: 2:00 p.m. – 5:00 p.m.*

Chair: Michael Thoman, Architectural Testing, Inc.

Vice Chair: Tracy Rogers, Edgetech IG, Inc.

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from July 2009 meeting in Baltimore, MD.

5. Report

- a. Air Leakage Task Group - Chris Nolt

6. Unfinished Business

- a. None

7. New Business

- a. NFRC 400-2010 ballot review

8. Adjourn

SCOPE

The Air Leakage Subcommittee is responsible for developing and coordinating 'NFRC 400, Procedure for Determining Fenestration Product Air Leakage.'

* Subcommittees under the Technical Block will run consecutively as time allows; groups listed on the schedule will go in order, but date/time is not guaranteed

Committee Chain: * Technical Committee * Air Leakage Subcommittee
NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org
Dennis Anderson, Laboratory Accreditation Program Manager * danderson@nfr.org



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*****DRAFT MINUTES*****
Air Leakage Subcommittee

Tuesday, July 21, 2009

Under Technical Committee Block: 2:00 p.m. – 5:00 p.m.

Chair: Michael Thoman, Architectural Testing, Inc.

Vice Chair: Tracy Rogers, Edgetech IG, Inc.

1. The meeting was called to Order at 3:37 PM

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. S.Wendt was appointed Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Minutes were approved from March 2008 meeting in Tucson, Arizona.

5. Report

- a. Air Leakage Task Group - Chris Nolt
 - i. MOTION C. Nolt / B. Schultz Moved to send back all negatives and comments to the TG to make the changes to the documents. Passed by unanimous voice vote.

6. Unfinished Business

- a. None

7. New Business

- a. NFRC 400 ballot review
 - i. B. Shah recommended the sensitivity of the rating value to possibly two values.

8. Adjourned at 3:49 PM

Meeting Notes:



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Annual Energy Performance Subcommittee

Tuesday, November 17, 2009

Under Technical Committee Block: 2:00 p.m. – 5:00 p.m.*

Chair: Tom Culp, BirchPoint Consulting

Vice Chair: James Larsen, Cardinal Glass, Inc.

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from July meeting in Baltimore, MD.

5. Reports

- a. International Activities

6. Unfinished Business

7. New Business

- a. Ballot - reference house procedure in NFRC 901

8. Adjourn

SCOPE

The Annual Energy Performance Subcommittee shall be responsible for developing the procedures to rate the annual energy performance of fenestration products and fenestration product attachments in homes, taking into account the variability of housing characteristics and operation. The Annual Energy Performance Subcommittee shall report to the Technical Committee.

* Subcommittees under the Technical Block will run consecutively as time allows; groups listed on the schedule will go in order, but date/time is not guaranteed

Committee Chain: * Technical Committee * Annual Energy Performance Subcommittee
*NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org*
*Dennis Anderson, LAP Manager * danderson@nfr.org*



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*****DRAFT MINUTES*****

Annual Energy Performance Subcommittee

Wednesday, July 22, 2009

Under Technical Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: Tom Culp, BirchPoint Consulting

Vice Chair: James Larsen, Cardinal Glass, Inc.

1. Meeting called to order at 10:00

- a. Welcome to All AttendeesCell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Recording secretary (Jessica Ferris)

3. Agenda reviewed and approved

4. Minutes from March meeting in Tucson, AZ approved as presented.

5. Reports

- a. International Activities – ISO committee voted on draft ballot of 1892 – didn't get a chance to submit negatives. Next ISO meeting is in October in Zurich, Germany.

6. Unfinished Business - None

7. New Business

- a. Ballot - reference house procedure in NFRC 901 –

Negatives:

1. Alliance to Save Energy – Regarding Table 1 – Reference house fenestration area – 15% suggested.

MOTION: N. Peterson/G. Stone moved to find negative persuasive. Motion passes by unanimous voice vote.

2. BBRS – Regarding Table 1 – leave it as user input rather than providing a default of 25% of fenestration on each side of the house.

MOTION: G. Stone/S. Johnson moved to find this negative and Cardinal's negative persuasive and substantive and to move this ballot back to the task group for review of different options. 16-12 Motion passes.

3. Cardinal - Regarding Table 1 – Reference House, Exterior Shading – disagrees with RESFEN typical shading assumptions

MOTION: J. Larsen/R. Temple moved to find negative persuasive and substantive and to send it back to TG along with review of distributions and use RESFEN typical conditions as guideline. 7-14 Motion fails.

MOTION: C. Curcija/R. McCluney moved to find negative non-persuasive. 14-7 Motion passes.

4. BBRS – Table 1 – HVAC Efficiency



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MOTION: G. Stone/R. Temple to find negative persuasive and editorial. Motion passes by unanimous voice vote.

5. Cardinal – Table 1 Internal Loads

MOTION: J. Larson/G. Stone moved to find negative persuasive and substantive. Motion passes by unanimous voice vote.

6. Cardinal – Section 9 - Replace standard deviation with range (high/low) – negative withdrawn.

7. BBRS – Dynamic fenestration. How is this handled as a variable? Proposes revisions to this language in Table 1.

MOTION: G. Stone/D. de Block moved to find negative persuasive and substantive, and to reconsider how dynamic glazing is considered. Motion passes by unanimous voice vote.

Straw Poll taken on the following –

- a. Range approach – define end points and reported as a range for both heating and cooling. - 5
- b. Define a number of conditions and run those simulations to produce average and standard deviation; one number for heating and cooling. - 6

8. Cardinal – Setpoints – There is an assumed night–time set back of 65 degrees. We should not assume this set back.

MOTION: J. Larson/G. Stone moved to find negative persuasive and substantive, and send back to TG to examine how setback temperature should be used. Motion passes by unanimous voice vote.

MOTION: G. Stone/ R. Temple that TG reexamine heating and cooling setpoints and make a recommendation to SC. Motion passes by unanimous voice vote.

9. Cardinal – Natural Ventilation

MOTION: J. Larson/G. Stone to find negative persuasive and substantive. Motion passes by unanimous voice vote.

MOTION: G. Stone/J. Larson moved that all unaddressed negatives and approved with comments be reviewed by the task group. Motion passes by unanimous voice vote.

Suggest by S. Selkowitz: Consider accepting Energy Star model – start with this as a premise.

Straw Poll Taken: In favor – 12; Not in favor - 8

8. Meeting adjourned at 11:30 AM



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U-Factor Subcommittee

Wednesday, November 18, 2009

*Under Technical Committee Block: * 7:30 a.m. – 12:30 p.m.*

Chair: Michael Thoman, Architectural Testing, Inc.

Vice Chair: Mahabir Bhandari, Carli, Inc.

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from July 2009 meeting in Baltimore, MD.

5. Reports

- a. Tubular Daylighting Devices Task Group – Dave DeBlock
- b. Garage / Rolling Door Task Group – Joe Hetzel
- c. Door Task Group – Steve Jaspersen
- d. Testing Laboratory Task Group – Mike Thoman
- e. Skylight Task Group – Roger LeBrun

6. Unfinished Business

- a. Progress of NFRC 100-2010

7. New Business

- a. NFRC 100 Applied Films Ballot
- b. NFRC 100 DASD Ballot
- c. NFRC 100 Window6/Therm6 Software Ballot
- d. NFRC 100 Validation Matrix Ballot
- e. NFRC 102-2010 Ballot
- f. NFRC 100 Garage-Rolling Door Ballot

8. Adjourn

SCOPE

The U-Factor Subcommittee is responsible for developing and coordinating NFRC 100: The Technical Procedures for Determining Fenestration Product U-Factors.

* Subcommittees under the Technical Block will run consecutively as time allows; groups listed on the schedule will go in order, but date/time is not guaranteed.

Committee Chain: * Technical Committee * U-Factor Subcommittee
NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org
Dennis Anderson, Laboratory Accreditation Program Manager * danderson@nfr.org



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*****DRAFT MINUTES****

***U-Factor Subcommittee**

Tuesday, July 21, 2009 / Wednesday, July 22, 2009
Under Technical Committee Block: 2:00 p.m. – 5:00 p.m.
Chair: *Michael Thoman, Architectural Testing, Inc.*
Vice Chair: *Mahabir Bhandari, Carli, Inc.*

-
1. Chair called the meeting to order at 3:15 - antitrust reminder given and reviewed voting requirements
 2. Scott Hanlon (Staff) appointed recording secretary
 3. Minutes from March 2009 (Tucson, AZ) meeting were approved as presented.
 4. The agenda was reviewed and approved as presented
 5. Reports
 - a. Tubular Daylighting Devices Task Group – D. DeBlock reported that there are two projects in progress: peer review TG to review TDD calculation and skylight research, which is waiting for support from Velux.
 - b. Garage / Rolling Door Task Group – J. Hetzel reported that the simulation manual is in the process of being finalized. DASMA research affirms the procedures in NFRC 100 and NFRC 200. There is a review of the affects of the vertical jamb hardware and the need to possibly remove
 - c. Door Task Group – D. DeBlock reported that there is one negative to be discussed later. J. Baker discussed that there is a request to look at working developing standardized calculations for simulation labs and to please make sure the TG starts working on this task.
 - d. Testing Laboratory Task Group – M. Thoman has nothing to report.
 - e. Skylight Task Group – M. Thoman for R. LeBrun has nothing to report.
 6. Unfinished Business
 - a. Progress of work groups and 2010 document cycle –
 - i. J. Krahn reported that there is a Board TG which has nothing to report.
 - ii. M. Thoman reported that the work from these WG will need to be presented to the membership as a ballot starting in March 2010. These WG do not have the time to introduce simplification language for the initial 2010 ballots.
 - iii. None of the WG had anything to report.
 7. New Business
 - a. NFRC 100 Applied Films
 - i. Pella negative: 6.1.5.1
MOTION: L. Winkler / B. Shah moved to find the negative persuasive and editorial.
Motion passes by unanimous voice vote.
 - ii. Pella negative: General #1
MOTION: J. Hayden / D. DeBlock moved to find the negative persuasive and editorial.
Motion passes by unanimous voice vote.
 - iii. Pella negative: General #2
Withdrawn



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- iv. WESTLab negative: General

Withdrawn

MOTION: R. Temple / D. DeBlock moved to include reference to NFRC 200 Section 5.7.7; and editorial changes to ballot. Motion passes by unanimous voice vote.

- v. JELD-Wen negative: Table 6-1

Withdrawn

- vi. Jeld-Wen negative: General

Withdrawn. Addressed by previous action.

- vii. Marvin negative: General

MOTION: L. Winkler / R. Temple moved to find the negative non-persuasive the motion. Motion fails: 14-14-8.

MOTION: J. Krahn / J. McFee moved to find the negative persuasive. Motion fails: 14-17.

MOTION: J. Hayden / J. Larsen moved the negative back to TG to reconsider the reference window. Motion passes: 20-13.

Chair requested that all remaining negatives and comments be forwarded to the TG for consideration.

- 8. The U-Factor SC meeting was adjourned for the day and will begin again on Wednesday at 7:30AM
- 9. Chair called the meeting to order at 7:34AM EDT to reconvene New Business.
 - a. L. Winkler received clarification of the TG's goal to use a reference window that can be built with generic profiles from an industrial supply store for the NFRC 100-2010 document.
 - b. NFRC 100 Attachment Ballot
 - i. Sunergy negative: General

MOTION: R. Simmons / D. DeBlock moved to find the negative substantive and persuasive and will strike all subsections referencing permeability, all other sections referencing TBD, and the reference to ASTM D737 will remain. Motion passes by unanimous voice vote.
 - ii. Sunergy negative: 4.3.3.4

MOTION: M. Cienian / W. DuPont moved to find the negative substantive and persuasive. Motion passes by unanimous voice vote.
 - iii. QTI negative: 4.1.1 & 4.1.2

MOTION: R. VanVoorst / S. Strawn moved to find the negative substantive and persuasive and should be sent back to the TG to include the correct size references. Motion passes by unanimous voice vote.
 - iv. QTI negative: Table 5-2

Addressed by previous action
 - v. Alliance negative: 4.3.3.3

MOTION: N. Petermann / R. VanVoorst moved to find editorial and persuasive and to send the ballot to TG. Motion passes by unanimous voice vote.



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- vi. Alliance negative: 4.3.3.4
Addressed by previous action
- vii. Alliance negative: Table 5-2
MOTION: N. Petermann / D. DeBlock moved to find substantive and persuasive and to send the ballot to TG and complete the table for the skylight. Motion passes by unanimous voice vote.
- viii. Alliance negative: Section 6
Addressed by previous action
- ix. Pella negative: General
MOTION: J. Hayden / D. DeBlock moved to find the negative substantive and persuasive and move back to TG. Motion passes by unanimous voice vote.
- x. Pella negative: 4.1.1
MOTION: J. Hayden / T. Rygg moved to find the negative editorial and persuasive. Motion passes by unanimous voice vote.
- xi. Pella negative: 4.1.1
MOTION: J. Hayden / T. DeBlock moved to find the negative editorial and persuasive. Motion passes by unanimous voice vote.
- xii. Pella negative: Table 5-2
Addressed by previous action
- xiii. Jeld-Wen negative: General
Withdrawn
- xiv. Andersen negative: General
MOTION: S. Johnson / R. VanVoorst moved to find the negative substantive and persuasive and to move back to TG and consider this negative when determining the base case window(s). Motion passes: 21-5-6.
- xv. WESTLab negative: General
Withdrawn. Addressed by previous action
- xvi. Cardinal negative: General
Withdrawn. Addressed by previous action
- xvii. The APC comments will be taken back to the TG for consideration.
- c. NFRC 100 W6/T6
MOTION: J. Hayden / R. Temple moved to find the all negatives substantive and persuasive and to the send back to the TG. Motion passes by unanimous voice vote.
- d. NFRC 100-2010
 - i. Jeld-Wen negative: General
MOTION: S. Strawn / D. DeBlock moved to find the negative substantive and persuasive. Motion passes: 0-0-0. Motion passes by unanimous voice vote.
 - ii. WESTLab negative: 5.2.4.D



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MOTION: J. Baker / D. DeBlock moved to find the negative editorial and persuasive.
Motion passes by unanimous voice vote.

- iii. WESTLab negative: General

Withdrawn. Addressed by previous action

- iv. Cardinal negative: General

Withdrawn. Considerations were presented to support the balloting process – use an older version of word for simplicity and to print the document out for review prior to posting to make sure that there are no errors (i.e., bookmark).

- v. The Chair will take the remaining comments back to the TG for review.

MOTION: R. Temple / T. Rygg moved to approve all sections balloted except for Section 5.2.5 and Table 5-1 and 5-2 and move forward to the Technical Committee for approval.
Motion passes by unanimous voice vote.

- e. Simplifying Doors

- i. R. VanVoorst brought forth a request that simulating and rating doors be simplified. Chair recommended that the Door TG have a meeting very soon.

10. Adjourned at 9:10 AM EDT

Meeting Notes:



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Solar Heat Gain Coefficient Subcommittee

Wednesday, November 18, 2009

Under Technical Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: James Larsen, Cardinal Glass, Inc.

Vice Chair: Bipin Shah, WinBuild, Inc.

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from July 2009 meeting in Baltimore, MD.

5. Reports

- a. None

6. Unfinished Business

- a. None

7. New Business

- a. Review of NFRC 200 Applied Film ballot
- b. Review of ballot for NFRC 200 to accommodate Window6/Therm6 Software
- c. Review of ballot for NFRC 200 Garage Door SHGC
- d. Motion to Reaffirm NFRC 200, if needed

8. Adjourn

SCOPE

The Solar Heat Gain Subcommittee is responsible for developing and coordinating NFRC 200: Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence. The Solar Heat Gain Subcommittee reports to the Technical Committee.

* Subcommittees under the Technical Block will run consecutively as time allows; groups listed on the schedule will go in order, but date/time is not guaranteed.

Committee Chain: * Technical Committee * Solar Heat Gain Coefficient Subcommittee
NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org
Dennis Anderson, Laboratory Accreditation Program Manager * danderson@nfr.org



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*****DRAFT MINUTES*****

Solar Heat Gain Subcommittee

Wednesday, July 22, 2009

Under Technical Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: *James Larsen, Cardinal*

Vice-Chair: *Bipin Shah, WinBuild, Inc.*

-
1. Chair called the meeting to order at 9:22AM EDT - antitrust reminder given and reviewed voting requirements
 2. Scott Hanlon (Staff) appointed recording secretary
 3. Minutes from March 2009 (Tucson, AZ) meeting were approved as presented.
 4. The agenda was reviewed and approved as presented
 5. Reports
 - a. None
 6. Unfinished Business
 - a. None
 7. New Business
 - a. NFRC 200 Applied film ballot
 - i. WESTLab negative: General
Withdrawn
 - ii. Cardinal negative: General
Withdrawn
 - iii. Jeld-Wen negative: General
Withdrawn
 - iv. Sunergy APC: General
No Action – discussion took place
 - v. Andersen APC: General
Comment accepted.

MOTION: L. Winkler / D. DeBlock moved to table the ballot. Motion passes by unanimous voice vote.
 - b. NFRC 200 W6/T6

MOTION: J. Hayden / R. Temple moved to find the all negatives substantive and persuasive and to the send back to the TG. Motion passes by unanimous voice vote.
 - c. Ballot to reaffirm NFRC 200
 - i. Chair informed the membership that if ballots are not approved at the November meeting that the NFRC 200-2004 document will be forwarded to the Board for reaffirmation as NFRC 200-2010.
 - d. B. Shah and J. Larsen will discuss removing language in the NFRC 200 regarding the area weighting calculation.



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Component Modeling Approach (CMA) Technical Subcommittee

Wednesday, November 18, 2009

*Under Technical Committee Block: * 7:30 a.m. – 12:30 p.m.*

Co Chair: *Mike Manteghi, TRACO*

Co Chair: *Gary Curtis, ECOS Consulting, Inc.*

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from the July 2009 meeting in Baltimore, MD

5. Reports

- a. CMA Technical Task Group – Mahabir Bhandari

6. Unfinished Business

7. New Business

- a. NFRC 100, Section 5.9
 - i. Report
 - ii. Ballot Review
- b. NFRC 100, Table 5.6.2 (Frame Grouping)
 - i. Report
 - ii. Ballot Review
- c. CMA Complex Products - NFRC 100, Section 5.9.6
 - i. Report
 - ii. Ballot Review

8. Adjourn

SCOPE

To develop a component based nonresidential technical procedure for fenestration products that will yield accurate energy performance data for use in code compliance and for meaningful building energy analysis.

* Subcommittees under the Technical Block will run consecutively as time allows; groups listed on the schedule will go in order, but date/time is not guaranteed.

Committee Chain: *Technical Committee *CMA Technical Subcommittee
NFRC Staff Liaison: Jessica Ferris, CMA Program Manager*JFerris@nfr.org



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****DRAFT MINUTES****

Component Modeling Approach (CMA) Technical Subcommittee

Wednesday, July 22, 2009

Under Technical Committee Block: 7:30 a.m. – 12:30 p.m.

Chair: *Mike Manteghi, TRACO*

Co-Chair: *Gary Curtis, ECOS Consulting*

1. Call to Order

- a. Welcome to All AttendeesCell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from March 2009 meeting in Tucson, AZ.

- a. Minutes approved

5. Reports

- a. CMA Technical Task Group – Mahabir Bhandari

Charlie reported no actions. But, it was identified that TG needs to address spandrel panels and corner products for rating.

Double-sash products definition to be addressed by CMA Complex Products and then report on actions to CMA Technical.

6. Unfinished Business

7. New Business

- a. Spacer Grouping (Path III) – NFRC 100
 - i. Report
 - ii. Ballot Review

Motion: S. Kumar/R. Temple: Move to send Spacer Grouping (Path III) – NFRC 100 ballot to Technical for approval. Motion approves via voice vote.

8. Adjourn



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Technical Committee

*Block Period: Tuesday, November 17, 2009 2:00 p.m. – 5:00 p.m.
Continued – Wednesday, November 18, 2009 7:30 a.m. – 12:30 a.m.*

Chair: Jeff Baker, WESTLab, Inc.

Vice Chair: Steve Johnson, Andersen Window Corporation

1. Call to Order

- a. Circulate attendance sheet
- b. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines
- e. Review committee voting requirements: one vote per Member Company listed on the roster.

2. Appoint Recording Secretary (NFRC Staff)

3. Roll call / Establish quorum

4. Review and approve agenda

5. Approve Minutes from July 2009 meeting in Baltimore, MD.

6. Reports

- a. Canadian/American Harmonization Task Group (J. Baker, J. Hogan)
- b. Validation Testing Task Group (S. Kumar)
- c. Software Subcommittee (B. Crooks, J. Krahn)
- d. Attachment Subcommittee (M. Cienian, D. DeBlock)
- e. Annual Energy Performance Subcommittee (T. Culp, J. Larsen)
- f. Condensation Resistance Subcommittee (K. Vilhauer, S. Harp)
- g. Air Leakage (M. Thoman, T. Rogers)
- h. U-factor Subcommittee (M. Thoman, M. Bhandari)
- i. Solar Heat Gain Subcommittee (J. Larsen, B. Shah)
- j. Component Modeling Approach Subcommittee (M. Manteghi)

7. New Business

- a. None

8. Adjourn

SCOPE

The Technical Committee is responsible for developing rating system tools and procedures necessary to ensure the technical accuracy of the rating system.

*NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org*



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Technical Committee Roster*

First Name	Last Name	Company Name
Mark	Cody	AGC Flat Glass North America, Inc.
Fred	Clark	Alkenz USA
Lisa	Winckler	AIMCAL - Window Film Committee
Nils	Peterman	Alliance to Save Energy
Chuck	Anderson	American Architectural Manufacturers Association (AAMA)
Joe	Jonely	Amsco Windows
Steve M.	Johnson	Andersen Corporation
Frank	Fisher	Arcadia, Inc.
Michael J.	Thoman	Architectural Testing, Inc.
Brad	Schultz	Associated Laboratories, Inc.
Steve	Harp	Associated Materials, Inc.
Roland	Temple	AZS Consulting
Thomas	Culp	Birch Point Consulting LLC
Garrett	Stone	Brickfield, Burchette, Ritts, & Stone, P.C.
Nelson	Pena	California Energy Commission
James	Larsen	Cardinal Glass Industries, Inc.
Charlie	Curcija	CARLI, Inc.
Kerry	Haglund	Center for Sustainable Building Research - Univ. of Minnesota
Joseph	Hetzel	DASMA (Door & Access Systems Manufacturers Assoc. International)
Tracy	Rogers	Edgetech I.G.
Gary	Curtis	ECOS Consulting, Inc.
Morgan	Hanam	Enermodal Engineering Limited
George	Nash	Ensinger Building Products
Gurjinder	Dhami	ETC Laboratories
John	Gant	Glen Raven, Inc.
Lucas	Turner	Hurricane Test Laboratories
Michael	Cienian	Hunter Douglas, Inc.
Margaret	Webb	Insulating Glass Manufacturers Alliance (IGMA)
Darrell	Smith	International Window Film Association (IWFA)
Steve	Strawn	Jeld-Wen, Inc.
Marcia	Falke	Keystone Certifications, Inc.
Christian	Kohler	Lawrence Berkeley National Laboratory (LBNL)
James C.	Krahn	Marvin Windows & Doors
Jan	Berman	Mecho Shade Corporation
Kevin	Vilhauer	Milgard Manufacturing, Inc.



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Technical Committee Roster continued

First Name	Last Name	Company Name
David A.	De Block	ODL Incorporated
Joseph	Hayden	Pella Corporation
Peter	Lyons	Peter Lyons & Associates
David L.	Duly	Pilkington North America, Inc.
Scott	Widmer	ProVia Door, Inc.
Marles	McDonald	Quality Testing, Inc.
Thomas S.	Zaremba	Roetzel & Andress
Noel	King	Royal Group
John	Hogan	Seattle Dept. of Planning and Development
Tina	Jenkins	Simonton Windows
Dan	State	Solatube
Julia	Schimmelpenningh	Solutia, Inc.
John	Meade	Southwall Technologies
William C.	duPont	Sunergy Consulting
Ross	McCluney	SunPine Consulting
Caleb	Willis	Switch Materials
Milind	Jhaveri	Technoform
Mike	Manteghi	TRACO
Werner	Lichtenberger	TruSeal Technologies, Inc.
Roger	LeBrun	VELUX-America Inc.
Daniel	Wacek	Viracon, Inc.
Bipin	Shah	WinBuild, Inc.
John	McFee	Window and Door Manufacturer's Association (WDMA)
Jeff	Baker	WESTLab
Tony	Rygg	William Rygg, Consultant

**Committee Membership requires members to sign up onsite at meeting for inclusion on roster/voting rights.
Please note if two consecutive meetings are missed without a voting representative signing the onsite roster – company will be dropped and interested parties must sign up once again.
If you notice a problem – PLEASE contact the staff of NFRC as soon as possible. Discrepancies cannot be addressed at the meeting: meetings@nfr.org*



NFRC 2009 Fall Membership Meeting
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*****DRAFT MINUTES*****

Technical Committee

Block Period: Tuesday, July 21, 2009 2:00 p.m. – 5:00 p.m.

Continued – Wednesday, July 22, 2009 7:30 a.m. – 12:30 a.m.

Chair: Jeff Baker, WESTLab, Inc.

Vice Chair: Steve Johnson, Andersen Window Corporation

-
1. Chair called the meeting to order at 11:55AM EDT. - antitrust reminder given and reviewed voting requirements
 2. Roll call / Establish quorum. Quorum established.
 3. Jessica Ferris (Staff) appointed recording secretary
 4. Agenda reviewed and approved
 5. Minutes from March 2009 meeting in Tucson, AZ approved as presented.
 6. Reports
 - a. Canadian/American Harmonization Task Group (J. Baker, J. Hogan)
 - b. Validation Testing Task Group (S. Kumar) – No new business. May have ballot in November.
 - c. Software Subcommittee (B. Crooks, J. Krahn) – Window 6/THERM 6 approval slated for November 2009
 - i. **MOTION:** B. Crooks/R. Temple to move forward to the NFRC Board of Directors that CMAST software, including W6/T6, be approved for use in the CMA Pilot Project contingent on the Board review approval of the validation and verification study. Motion passes by voice vote with One disapproval.
 - d. Attachment Subcommittee (M. Cienian, D. DeBlock) – Applied films and Attachment ballots sent back to TG. TG to review and establish appropriate baseline windows for U-factor. No action items for the Board.
 - e. Annual Energy Performance Subcommittee (T. Culp, J. Larsen) – No action items. Ballot being sent back to TG.
 - f. Condensation Resistance Subcommittee (K. Vilhauer, S. Harp) – One action item.

MOTION: S. Harp / R. Temple moved to forward to the NFRC Board of Directors the NFRC 500 W6/T6 ballot for approval and implementation with all other 2010 documents.
 - g. Air Leakage (M. Thoman, T. Rogers) – Ballot for the November meeting.
 - h. U-factor Subcommittee (M. Thoman, M. Bhandari) - Ballots going back to TG.
 - i. Solar Heat Gain Subcommittee (J. Larsen, B. Shah) – No action items to report. Applied Film to be re-balloted for November. J. Larsen to set down as chair at end of the year.
 - j. Component Modeling Approach Subcommittee (M. Manteghi) –



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Certification Subcommittee

Wednesday, November 18, 2009

Under Ratings Committee Block: 2:00 p.m. – 5:00 p.m.

Chair: Joe Jonely, AMSCO

Vice Chair: Tina Jenkins, Simonton Windows

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per Member Company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from July 2009 meeting in Baltimore, MD.

5. Reports

- a. PCP Review TG – Tina Jenkins
- b. Product Line ID TG – J. McFee
- c. Attachment PCP TG – T. Morrissey / M. Cienian

6. Unfinished Business

- a. None

7. New Business

- a. NFRC 700-2010 Private Labeler Ballot
- b. NFRC 700-2010 Thermo-Physical Ballot
- c. NFRC 700-2010 Applied Films (U-Factor) Ballot
- d. NFRC 700-2010 Lineal Supplier Ballot
- e. Time frame for new labeling requirements

8. Adjourn

SCOPE

To create and maintain the Product Certification Program (PCP) document and procedures with the exception of label specific issues.

Committee Chain: * Ratings Committee * Certification Subcommittee
NFRC Staff Liaison: Sherri Wendt, Certification Associate * swendt@nfr.org
NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org



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*****DRAFT MINUTES*****

Certification Subcommittee

Wednesday, July 22, 2009

Under Ratings Committee Block: 2:00 p.m. – 5:00 p.m.

Chair: *Joe Jonely, AMSCO*

Vice Chair: *Tina Jenkins, Simonton*

-
1. Joe Jonely called the meeting to order at 3:25 PM - antitrust reminder given and reviewed voting requirements.
 2. Sherri Wendt (NFRC Staff) Appoint Recording Secretary
 3. The agenda was reviewed and added four new business items.
 4. Minutes from March 2009 meeting in Tucson, AZ were approved as presented
 5. Reports
 - a. PCP Review TG – Tina Jenkins everything is action items and no items moved on to Tech or Cert SC.
 - b. Product Line ID TG – J. McFee presented that the Product Line ID was discussed so that the items of interest was selecting the number ahead of time for marketing reason, and it wouldn't be different then what the CPD currently does for creating new product line numbers. List of tasks to be completed was presented. One ballot will be presented.
 - c. Attachment PCP TG – T. Morrissey / M. Cienian M. Cienian had no action items to report but did want present items at next meeting.
 6. Unfinished Business
 - a. None
 7. New Business
 - a. PCP Ballot Product Line ID / Door / Label – NFRC 700-2009
 1. Pella Corp approved with comment: Figure B-2
MOTION: J. McFee / J. Hayden moved the motion forward to the Certification SC for approval. Motion passes: Motion passes by voice vote with one abstention.
 - b. PCP Ballot Private Labeler – NFRC 700-2009
 1. Architectural Testing negative: Withdrawn
 2. Hunter Douglas approved with comment: Withdrawn
 3. Andersen Corp approved with comment: Withdrawn
S. Johnson re-instated the comment that license agreement be consistent with new Energy Star re-qualification requirements. S. Hanlon reaffirmed that all is being handled as expected and no issues have risen from any current private labeler.
 4. Serious Materials approved with comment: Found non-germane since this is a NFRC 600 matter.
MOTION: R. Temple / T. Jenkins moved to forward to the Board for approval and implementation. Motion passes: Motion passes by unanimous voice vote.
 - c. PCP Ballot Section 4 & 5 – NFRC 700-2009



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MOTION: R. Temple/ J. McFee to move the NFRC 700 W6/T6 forward for to the Ratings Committee for approval and to be implemented upon approval of the Window 6 and Therm 6 software. Motion passes by unanimous voice vote.

- d. PCP Ballot Section 6 & Appendix B – NFRC 700-2009
1. Jeld-Wen AC: Withdrawn

MOTION: R. Temple / S. Harp motion to move this section forward. Motion passes by unanimous voice vote.

- e. PCP Ballot Applied Films – NFRC 700-2009

MOTION: J. Hayden / L. Winkler moved back to the Applied Films TG for review of all comments. Motion passes by unanimous voice vote.

1. QTI negative: General #1: Withdrawn

2. QTI negative: Section 6.4.2.D

MOTION: L. Winkler / R. Temple moved to find it persuasive and editorial. Motion passes by unanimous voice vote

3. QTI negative: General #3

MOTION: L. Winkler /R. Van Voorst moved to PCP Review TG for review. Motion passes by unanimous voice vote.

4. Anderson negative: General

MOTION: S. Johnson / R. Temple moved the motion to find this persuasive and substantive and to move to TG pending the further investigation of the certification of the reference window to the technical procedure in the NFRC 100. Motion passes by unanimous voice vote with one abstention.

Discussion: The language in this section does not reference the U-factor shouldn't be labeled but the language how it's actually done is not in the PCP. This won't be moved forward but held and that it's agreed to what it currently says in the 100. The negative doesn't apply to specific language in the PCP.

S. Johnson reference windows are not part of this document of how applied film is calculated in the PCP.

5. Marvin negative: General - Withdrawn based on NFRC 100 ballot discussion.

6. WESTLab negative: General - Withdrawn based on NFRC 100 ballot discussion.

7. Cardinal negative: General - Withdrawn based on NFRC 100 ballot discussion.

8. Jeld-Wen negative: 4.3.4.3 - Withdrawn based on NFRC 100 ballot discussion.

9. Jeld-Wen negative: 6.4.2.A - Withdrawn based on NFRC 100 ballot discussion.

10. Jeld-Wen negative: 6.4.2.D - Withdrawn based on NFRC 100 ballot discussion.

11. Jeld-Wen negative: Figure B-4 - Withdrawn based on NFRC 100 ballot discussion.

12. Hunter Douglas AC: General – Found non-germane and will be forwarded to PCP Review TG.

13. Pella AC: 4.3.4.3 - Withdrawn based on NFRC 100 ballot discussion.

MOTION: J. Hayden / R. Temple Second moved the motion is persuasive and editorial. Motion passes by unanimous voice vote.



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14. Sunergy AC: General – Chair accepts comments.

15. Alliance AC: General - Withdrawn

f. Dynamic Glazing

MOTION: J. Hayden / R. Temple to move due to delays in completing the research project, the Window 6/Therm 6 Validation Research PMTG and the Window 6 / Therm 6 Approval TG jointly and formally recommend to the Certification Subcommittee that this current mandatory date of March 1, 2010 be suspended. Further the two TGs will present a proposal for a revised mandatory date at the November 2009 Membership Meeting. The TGs ask the Certification Subcommittee to approve this recommendation and forward same to the Ratings Committee for further consideration. Motion passes by unanimous voice vote.

Background:

Both TGs have discussed the fact that previously, the NFRC Board of Directors established a mandatory date of March 1, 2010, by which all Dynamic Glazing Products must be rated, certified, and labeled with performance values that account for the product's dynamic feature(s). (For example, products with between-glazing shades must be rated, certified and labeled with values that account for the presence of the shades, beginning March 1, 2010)

Discussion: M. Thoman recommend pushing date any further back would be damaging to those who want to use the software. J. Hayden not all testing has been completed and the software had not been tested to be sure that it's efficiently ready.

8. The meeting was adjourned at 4:27 PM.

Meeting Notes:



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Labeling Subcommittee

Wednesday, November 18, 2009

Under Ratings Committee Block: 2:00 p.m. – 5:00 p.m.

Chair: *John McFee, Window & Door Manufacturing Association (WDMA)*

Vice Chair: *TBD*

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per Member Company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from July 2009 meeting in Baltimore, MD.

5. Reports

- a. CMA Label TG – C. Curcija
- b. Attachment Label TG – T. Morrissey / M. Cienian
- c. Metric Ratings Label WG – J. Baker
- d. Other Label issues from Task Groups or Committees

6. Unfinished Business

- a. None

7. New Business

- a. NFRC 700-2010 Applied Films Ballot
- b. NFRC label supporting MFG and consumers

8. Adjourn

SCOPE

To create the formats and specifications for temporary and permanent labeling for ratings developed by the NFRC and to coordinate the appropriate language consistent with such formats into the Product Certification Program.

Committee Chain: * Ratings Committee * Labeling Subcommittee
NFRC Staff Liaison: Sherri Wendt, Certification Associate * swendt@nfr.org
NFRC Staff Liaison: Scott Hanlon, Senior Programs Manager * shanlon@nfr.org



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*****DRAFT MINUTES*****

Labeling Subcommittee

Wednesday, July 22, 2009

Under Ratings Committee Block: 2:00 p.m. – 5:00 p.m.

Chair: *John McFee, Window & Door Manufacturing Association (WDMA)*

Vice Chair: *TBD*

-
1. John McFee called the meeting to order at 2:53 PM- antitrust reminder given and reviewed voting
 2. Sherri Wendt (NFRC Staff) was appointed recording secretary.
 3. The agenda was reviewed and approved as presented.
 4. Minutes from March 2009 meeting in Tucson, AZ were approved as presented.
 5. Reports
 - a. CMA Label TG – C. Curcija reported that CMA is ready to go and that the TG will be suspended until there are more items.
 - b. Attachment Label TG – T. Morrissey reported that technical documents need to be in place prior to moving forward for the 100 and 200 to progress. Discuss differences between permanent and temporary labels – recently clarified language that it is in the PCP. No new action items.
 6. New Business
 - a. Discuss requirements for metric labeling – J. Baker
 - i. PCP Figure B-11 the use of metric units: using 2 decimals is not defined in the text of the PCP. Request from natural recourses of Canada to bring the places to two reading decimals “0.00” it will imply a greater level of accuracy to allow for the same number of decimals for the Canadian label. Requesting PCP language to be changed. This is an issue because the calculation by the IA needs to have a level of equivalency from IP to SI unit.
 - ii. M. Thoman stated the Section 4.6.4 has the requirement to round to the nearest “0.05 W/m²K”. Recommendations: to change NFRC 100 section to read 0.01 from 0.05.
 - iii. Metric ratings and labeling issues as a new workgroup that J. Baker will chair. Scope: Allow metric numbers in the CPD for the ability to cross check the data during inspections.
 - b. Print labeling info on outside of the box – D. DeBlock
 - i. SC agreed that ODL is within the requirements per Appendix B to print the label at their recommended sizes
 - ii. Direct the PCP task group to look at the language for PCP Appendix B.2 to include “width” and “height” requirements or allow a larger NFRC label.
 7. The meeting was adjourned at 3:24 PM



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Component Modeling Approach (CMA) Ratings Subcommittee

Wednesday, November 18, 2009

Under Ratings Committee Block: 2:00 p.m. – 5:00 p.m.

Co Chair: *Mike Manteghi, TRACO*

Co Chair: *Gary Curtis, ECOS Consulting, Inc.*

1. Call to Order

- a. Welcome to All Attendees ...Cell phones & pagers to Silent Mode
- b. Antitrust reminder
- c. NFRC Meeting Guidelines
- d. Review subcommittee voting requirements: one vote per member company

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from July 2009 meeting in Baltimore, MD.

5. Reports

- a. CMA Complex Products Task Group – Sneh Kumar

6. Unfinished Business

7. New Business

- a. NFRC 705-2010
 - i. Report
 - ii. Ballot Review

8. Adjourn

SCOPE

To develop a new component-based certification and rating procedure for fenestration products that will yield accurate energy performance data for use in code compliance and for meaningful building energy analysis. The certification and rating program shall be credible, simple, cost- effective, fair, uniform, and useful.

Committee Chain: *Ratings Committee *CMA Ratings Subcommittee
NFRC Staff Liaison: Jessica Ferris, CMA Program Manager*JFerris@nfr.org



NFRC 2009 Fall Membership Meeting
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*****DRAFT MINUTES*****

Component Modeling Approach (CMA) - Ratings Subcommittee

Wednesday, July 22, 2009

Under Ratings Committee Block: 2:00 p.m. – 5:00 p.m.

Chair: *Gary Curtis, The West Wall Group*

Vice-Chair: *Mike Manteghi, TRACO*

-
1. Chair called the meeting to order at 2:15PM EDT – antitrust reminder given and reviewed voting requirements
 2. Scott R. Hanlon (Staff) appointed recording secretary
 3. Minutes from March 2009 (Tucson, AZ) meeting were approved as presented.
 4. The agenda was reviewed an item under reports was added and approved
 5. Reports
 - a. Complex Product TG – S. Kumar reported was formed in Tucson, AZ and has met twice. The TG is working on the scope. In general the TG is to review products that do not meet the NFRC standard product types for certification.
 6. Unfinished Business
 - a. None
 7. New Business
 - a. Forum Discussion – NFRC 705-2009, Section 5.1 – “Calculations performed by the ACE for label certificates shall be subject to review by an IA selected and contracted by the ACE.”
 - i. At the initial ACE pilot project training, the group was concern that the ACE contracting with an IA to perform the review of their work is not a proper mechanism for a review process.
 - ii. Does an “independent” ACE maintain their independence because of the contract between the IA and Independent ACE?
 - iii. A recommendation that the specifying authority would contract with the IA to perform the review.
 - iv. For audits, the IA associated with the label certificate is responsible for the remaining documentation trail and audits.
 - v. A recommendation that NFRC Counsel reviews the intent of process and the language.
 - vi. Chair will direct the CMA PCP task group to provide a ballot at the November meeting based on the recommendations discussed at this meeting.
 - b. F. Fisher requested that the SC review the requirement to have IG Certification for NFRC label certificates. The IG Certification requirement has great potential to not allow NFRC label certificates to be generated and cause the closure of the small IG businesses.
 - i. This is concern that the specifying authority and the glass manufacturers who are responsible for the glass do not attend these meetings and are going to be unaware of the program requirements.
 - ii. The Chair recommends that this is taken to the NFRC Board for discussion and guidance.



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Ratings Committee

Wednesday, November 18, 2009

Block Period: 2:00 p.m. – 5:00 p.m.

Chair: *Steve Strawn, JELD-WEN*

Vice Chair: *John McFee, Window & Door Manufacturing Association (WDMA)*

1. Call to Order

- a. Circulate attendance sheet
- b. Welcome to All Attendees ...Cell phones & laptops to Silent Mode
- c. Antitrust reminder
- d. NFRC Meeting Guidelines
- e. Review committee voting requirements: one vote per Member Company listed on the roster.

2. Appoint Recording Secretary (NFRC Staff)

3. Roll call / Establish quorum

4. Review and approve agenda

5. Approve Minutes from July 2009 meeting in Baltimore, MD.

6. Reports

- a. Validation Testing TG – (S. Kumar)
- b. CMA Complex Product TG – (S. Kumar)
- c. Labeling SC – (J. McFee)
- d. Certification SC – (J. Jonely)
- e. CMA Certification SC – (M. Manteghi)

7. New Business

- a. None

8. Adjourn

SCOPE

The NFRC Ratings Committee (formerly Ratings, Codes & Standards Committee) is responsible for developing programs to assure the uniform application of ratings for NFRC technical procedures. The Ratings Committee will work in conjunction with the Regulatory Affairs Committee to coordinate international ratings.



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Ratings Committee Roster*

First Name	Last Name	Company Name
Mark	Cody	AGC Flat Glass North America, Inc.
Lisa	Winckler	AIMCAL - Window Film Committee
Nils	Petermann	Alliance to Save Energy
Chuck	Anderson	American Architectural Manufacturers Association (AAMA)
Joe	Jonely	Amsco Windows
Steve M.	Johnson	Andersen Corporation
Frank	Fisher	Arcadia, Inc.
Michael J.	Thoman	Architectural Testing, Inc. - PA
Brad	Schultz	Associated Laboratories, Inc.
Steve	Harp	Associated Materials, Inc.
Roland	Temple	AZS Consulting
Travis	Windleharth	Bekaert Specialty Films, LLC
Thomas	Culp	Birch Point Consulting LLC
Garrett	Stone	Brickfield, Burchette, Ritts & Stone, PC
Nelson	Pena	California Energy Commission
Charlie	Curcija	CARLI, Inc.
Kerry	Haglund	Center for Sustainable Building Research
Gary	Curtis	ECOS Consulting, Inc.
Tracy	Rogers	Edgetech IG
Shelia	Gore	Enermodal Engineering Limited
George	Nash	Ensinger Building Projects
Gurjinder	Dhami	ETC Laboratories
Michael	Cienian	Hunter Douglas
Lucas	Turner	Hurricane Testing Laboratories
Darrell	Smith	International Window Film Association (IWFA)
Steve	Strawn	Jeld-Wen, Inc.
Marcia	Falke	Keystone Certifications, Inc.
Robin	Mitchell	Lawrence Berkeley National Laboratory (LBNL)
James C.	Krahn	Marvin Windows & Doors
Kevin	Vilhauer	Milgard Manufacturing
David A.	De Block	ODL Incorporated
Joseph	Hayden	Pella Corporation
Peter	Lyons	Peter Lyons & Associates
David L.	Duly	Pilkington North America, Inc.
Chris	Nolt	ProVia Door, Inc.



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Ratings Committee Roster continued

First Name	Last Name	Company Name
Marles	McDonald	Quality Testing, Inc.
Thomas S.	Zaremba	Roetzel & Andress
Michel	Pepin	Royal Group Technologies
John	Hogan	Seattle Department of Planning & Development
Tina	Jenkins	Simonton Windows
Julia	Schimmelpenningh	Solutia, Inc.
William	DuPont	Sunergy Consulting
Mike	Manteghi	TRACO, Inc.
Werner	Lichtenberger	Truseal Technologies, Inc.
Roger	LeBrun	Velux America, Inc.
Dan	Waceck	Viracon
Jeff	Baker	WESTLab, Inc.
Bipin	Shah	WinBuild, Inc.
John	McFee	Window and Door Manufacturer's Association (WDMA)
William	Rygg	William Rygg, Consultant

**Committee Membership requires members to sign up onsite at meeting for inclusion on roster/voting rights.
Please note if two consecutive meetings are missed without a voting representative signing the onsite roster – company will be dropped and interested parties must sign up once again.
If you notice a problem – PLEASE contact the staff of NFRC as soon as possible. Discrepancies cannot be addressed at the meeting: meetings@nfr.org*

Meeting Notes:



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*****DRAFT MINUTES*****

Ratings Committee

Wednesday, July 22, 2009

Block Period: 2:00 p.m. – 6:00 p.m.

Chair: *Steve Strawn, JELD-WEN*

Vice Chair: *TBD*

-
1. Chair called the meeting to order at 4:38 p.m. – antitrust reminder given and reviewed voting requirements
 2. Roll call was taken and a quorum was established.
 3. Sherri Wendt (Staff) appointed recording secretary
 4. The agenda was reviewed and approved as presented.
 5. Minutes from March 2009 (Tucson, AZ) meeting were approved as presented.
 6. Reports
 - a. Validation Testing TG – S. Kumar had no action items. Did inform the committee that the CPC will be reviewing the IA OPs manual and NFRC 702 for IA inspection requirements.
 - b. Labeling SC – (John McFee)
 - i. A report was forwarded from the CMA Label TG and the TG will be suspended.
 - ii. New Business was to address the requirements for metric units on the label for the BOD review.
 - iii. Dynamic Attachment Label: the committee discussed the size requirement for a MFG label and concluded that the label was within the requirements of the NFRC 700 language.
 - iv. Door Label: requirements will be worked in the TG and brought forward.
 - c. Certification SC – (Presented by S. Strawn)
 - i. PCP language will be worked on for Attachments
 - ii. Applied films ballot was sent back to the TG.
 - iii. Section 4 & 5 ballot was approved with some stipulations:

MOTION: J. Jonely / R. Temple move the NFRC 700, sections 4 & 5 ballots forward to the NFRC Board for approval and to be implemented upon a date to be determined after approval of W6/T6 software. Motion passes by unanimous voice vote.

- iv. Ballots to move forward:

MOTION: J. Jonely / McFee move the NFRC 700 Product Line ID / Door / Label ballot forward to the NFRC Board for approval and to be implemented upon publication forward. Motion passes by unanimous voice vote.

MOTION: J. Jonely / R. Temple move the NFRC 700 Private Labeler ballot forward to the NFRC Board for approval and to be implemented upon publication. Motion passes by voice vote with one nay.



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MOTION: J. Jonely / J. Hayden move the NFRC 700 Section 6 & App. B ballot forward to the NFRC Board for approval and to be implemented upon publication. Motion passes by unanimous voice vote.

- v. Dynamic label certification and labeling deadlines:

MOTION: J. Jonely / J. Hayden move forward to the NFRC Board for approval a recommendation to suspend the certification and labeling deadline of dynamic glazing products of March 1, 2010. Motion passes by unanimous voice vote.

Note: Certification SC motion language: Due to delays in completing the research project, the Window 6/Therm 6 Validation Research PMTG and the Window6/Therm6 Approval TG jointly and formally recommend to the Certification Subcommittee that this current mandatory date of March 1, 2010 be suspended. Further the two TGs will present a proposal for a revised mandatory date at the November 2009 Membership Meeting. The TGs ask the Certification Subcommittee to approve this recommendation and forward same to the Ratings Committee for further consideration.

- vi. CMA Certification SC – M. Manteghi presented that discussion came up for IGG Certification. Chair will direct the CMA PCP task group to provide a ballot at the November meeting based on the recommendations discussed at this meeting. PCP Ballot for validation testing language was sent back to Validation Testing TG.

7. New Business

- a. None

8. Meeting was adjourned at 4:59 pm.

Meeting Notes:



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Board of Directors Meeting

Thursday, November 19, 2009

8:00 a.m. – 11:00 a.m.

Chair: *Joseph Hayden, Pella Corporation*

1. Call to Order

- a. Roll call / establish quorum.
- b. Welcome to All Attendees ... Cell phones & pagers to Silent Mode.

2. Review and approve agenda

3. Appoint Recording Secretary (NFRC Staff)

4. Committee Reports

- a. Regulatory Affairs and Marketing Committee (G. Stone)
- b. Accreditation Policy Committee (M. Falke)
- c. Technical Interpretations Policy Committee (T. Culp)
- d. Certification Policy Committee (R. Temple)
- e. Regulatory Affairs and Marketing Committee (G. Stone)
- f. Research and Technology Committee (W. Lichtenberger)
- g. Technical Committee (J. Baker)
- h. Ratings Committee (S. Strawn)

5. Unfinished Business

6. New Business

- a. 2009 Financials Update

7. Adjourn



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NFRC Staff Directory – Fall 2009

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Program Booklet

Guidelines for Orderly Conduct of NFRC Meetings

The following general guidelines apply to meetings of NFRC Committees and Subcommittees. As guidelines, committee/subcommittee chairs have the discretion in how rigidly to enforce these requirements (subject to being overruled by the members on a specific issue pursuant to a 2/3 majority). The intent is that committee/subcommittee chairs will use their good judgment in applying these rules to assist NFRC in conducting its meetings in an orderly fashion, while giving interested parties a reasonable opportunity to present their views. However, nothing in these guidelines, nor any flaw in committee and/or subcommittee conduct or procedure, will be construed to prohibit the NFRC Board from taking action on any matter if it deems it necessary in the best interests of the organization.

1. All material to be presented or discussed at an NFRC scheduled meeting shall be published as a listed item of the NFRC meeting agenda. The initial agenda shall be published 30 calendar days in advance of the meeting. All significant written or electronic presentations or documents to be handed out during the NFRC meeting shall be submitted to the committee chair and NFRC staff for review and determination of compliance with any applicable NFRC requirements. The presentations shall be submitted to the respective chair, who in turn would provide a copy to NFRC staff, no later than 15 calendar days before the NFRC meeting date. Any revisions to a published agenda shall be made by the chair no later than 12 calendar days before the NFRC scheduled meeting. The final meeting agenda shall be published by NFRC staff no later than 10 calendar days before a scheduled NFRC meeting. Issues not included on the published agenda can be brought up as announcements or for preliminary discussion only. No final action is to be taken on any item not specifically listed on the published agenda.
2. At a scheduled NFRC meeting, no person shall present his/her view until the chair recognizes the person to do so.
3. Minutes shall reflect all written ballot responses that are declared to be negatives and/or approved with comments and shall also reflect how each was addressed.



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4. All motions put forth in an NFRC meeting **MUST** be typed or written down on a designated Motion Form to be formally presented to the group and incorporated into the meeting minutes. Chairs shall provide enough time for the NFRC staff to type or collect any written motions and register them in the meeting minutes. The chair shall not proceed to a vote on an issue or to the next issue or agenda item until minute taker advises the chair that the needed action item has been duly registered, the motion form has been received, and the motion has been read to the group.

5. The minute taker shall register all action items in the meeting minutes. The minutes should try to contain a short summary of the proponent's reason for making the motion, so as to provide background for the intent. If modifications are made to the motion, there should also be a short summary of the intent for the modification. Unless recognized by the chair, minute taker shall not list any issues/notes other than the action items and short summary in meeting minutes.

6. Rules of common courtesy and Roberts Rules of Order generally apply to the conduct of NFRC meetings.

Meeting Notes:



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NFRC Antitrust Compliance Procedures

NFRC is committed to requiring the organization and its members and representatives to be in full compliance with all federal and state antitrust laws, rules and regulations. NFRC recognizes that some of its members and participants may be potential competitors and NFRC wishes to scrupulously avoid any discussion or activity that could lead to, or be reasonably perceived as leading to, improper restraints on competition. NFRC's Board of Directors has adopted the following procedures to assist the organization and its constituents to maintain full compliance with these antitrust laws. These procedures apply to all NFRC members, directors on NFRC Board of Directors, officers, NFRC staff, and all participants in NFRC sponsored meetings and task groups and to all other meetings attended by individuals as representatives of NFRC.

Avoiding Improper Agreements and Discussions Among Competitors.

1. Express of implicit agreements or discussions among competitors as to prices or price levels relating to their products and services is expressly prohibited. In addition, no discussion is permitted of any elements of a company's operations which might influence pricing such as:
 - a. how prices are determined and when they are issued;
 - b. costs of operations, supplies, labor or services;
 - c. allowances for discounts and rebates;
 - d. raw materials and costs and production and inventory matters;
 - e. terms of sale or products, including credit arrangements; or
 - f. profit margins and mark ups.

2. Competitors may not discuss or reach agreements not to compete with each other in any form. The following are examples of improper anti-competitive conduct prohibited by federal and state antitrust laws:
 - a. division of geographic market territories;
 - b. limitations on the nature of business to be carried on or the products to be sold; or
 - c. agreements to sell products for a specific market only.

3. Discussions or agreements to boycott or refrain from doing business with other commercial entity are also expressly prohibited in any form. Examples of these illegal boycotts include the following:
 - a. agreements not to pursue a new technology;



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- b. agreements about blacklisting or unfavorable reports about particular companies including their financial situation; or
- c. agreements not to do business with identified vendors, customers and others.

Compliance Education and Monitoring.

1. It is NFRC's policy to periodically acquaint NFRC members, members of NFRC's Board of Directors, staff and other participants in the organization with the policies and procedures set forth in the Antitrust Compliance Procedures. As part of that compliance effort, NFRC will take the following steps to better ensure that NFRC meets these legal requirements:
 - a. Legal counsel for NFRC will brief NFRC Board and staff from time to time as to the requirements of the antitrust laws and the application of those laws to the activities of the organization;
 - b. NFRC Board and Executive Director will keep NFRC legal counsel informed of current and projected activities of NFRC and, as appropriate, request an antitrust review of those activities which will be shared with the Board.
 - c. NFRC legal counsel will be consulted on the agendas for NFRC meetings and the purpose of those meetings. Minutes of all NFRC sponsored meetings will be maintained and submitted to legal counsel for review for anti-trust implications;
 - d. At any meetings attended by persons who are acting on behalf of NFRC where discussion relates to matters with antitrust implications, the NFRC representative shall request that the discussion be stopped and ask that the request be made a part of the minutes of the meeting. If others continue such discussion, the NFRC representative shall leave the meeting and request that the minutes show that s/he left the meeting at that point and why s/he left. The NFRC representative shall immediately report the incident to NFRC's Executive Director who shall promptly inform the Board of the incident.
 - e. It is NFRC's policy that a copy of these Antitrust Compliance Procedures be given to each officer, director, committee member, official representative of member companies and NFRC employees at least annually and that the same be read, and/or disseminated, at all NFRC sponsored meetings.

*Adopted by the NFRC Board of Directors
January 30, 2003*



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Duties of Meeting Chairpersons

The chairperson of each committee is responsible for well-planned and fair meetings. Since many interests are generally present at NFRC meetings, it is the duty of the chairperson that all interests be heard and fairly dealt with. The chairperson of each committee, subcommittee and task groups shall use *Robert's Rules of Order, The Modern Edition* (The Berkeley Publishing Group 1989). The chairperson is also responsible for the management of the work of the group. It is up to the chair to assure that the work of the group is proceeding as scheduled and to oversee the work of the group during periods between meetings.

The following are some suggestions for the chair.

- Members should understand why the group exists and what are the expected goals.
- At the beginning of each meeting, determine quorum and identify voting members (one vote per voting member for subcommittees or one vote per voting member listed on the roster). For each task group, determine a well represented group of industry professionals.
- Review past minutes and recommendations and, if appropriate, make them part of the agenda.
- Distribute an agenda in time for the group Members to prepare themselves. One of the first items on the agenda should be approval of the minutes from the last meeting, if not already approved by letter ballot or other means.
- Determine if any items are to be added to the agenda.
- Follow up with Members who have been assigned tasks to assure they are completed.
- During the meeting, follow the agenda. Make sure items are covered, and if action is to be taken, it should be completed prior to moving on to the next agenda item.
- If the discussion is not related to the agenda item under consideration, ask that it be held until the proper time on the agenda.
- Make sure all assenting and dissenting views are heard before taking any action.
- After any action or vote is taken, repeat the decision and announce the vote for, against, and abstentions ensuring that the group understands. Do not move on to another agenda item until this is done.
- Only enter into discussions to expedite the business of the group, such as keeping the discussion on the appropriate topic.
- Before adjourning the meeting, review all votes taken, recommendations made or assignments given. Group participants should leave a meeting knowing what was decided and who is responsible for tasks prior to the next meeting.
- Make all assignments clear and concise and give a time when they should be completed.
- Be aware of the general principles regarding antitrust and tax exemption compliance provided by NFRC and remind your members of those principles from time to time. If you are concerned about the legal implications of any of the committee's actions or deliberations, contact NFRC's Executive Director and ask for input from NFRC's legal counsel, as appropriate.



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Duties of Members Attending NFRC Meetings

- Be prepared to complete any assignments given within the time scheduled.
- Review agendas and be prepared to address the appropriate items.
- Speak only to the agenda items under consideration.
- Know the functions of the group.
- Be able to support views with facts or reasonable conclusions.
- Be a positive influence on all group actions.
- Respect other views.
- Make sure that actions to be taken, assignments given or activities to be continued are understood.
- Read all materials provided prior to the meeting.
- Committee Membership Responsibilities:
 - To become a committee member, the designated member representative shall attend a meeting of the Committee, and request, by signing the attendance list and checking a member declaration box, inclusion on the Committee roster which is maintained by the Committee chairperson. A Committee member may vote at the first Committee meeting the organization is listed on the roster.
 - Committee members are expected to be experts on, or representatives of an organization directly involved in, the issues to be considered by the Committee.
 - Committee members shall be designated voting representatives, or designated alternate, of NFRC Members.
 - Acceptance of a position on a committee implies an agreement to participate constructively and consistently in committee proceedings.
 - After establishing committee membership, failure to attend two consecutive meetings without the approval of the chairperson will result in the removal of the committee member from the committee roster. Exercising of a proxy for more than two consecutive meetings does not constitute attendance.



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Getting Involved with NFRC *Guide to the different levels of participation:*

TASK GROUPS:

NFRC Definition & Purpose: Task groups are formed by chairmen of the subcommittees from members and non-members and are responsible for researching and developing specific issues presented to them by the chairman. Task Group findings and recommendations are reported to the Subcommittee responsible for its formation. Task groups are dissolved at the conclusion of their mission.

Current Listing Available: <http://www.nfrc.org/taskgroups.aspx>

Requirements and Details:

- All interested public welcome to join and participate.
- No NFRC membership or attendance requirements to be listed or participate as member of an NFRC Task Group.
- If interested in participation – name must be given to Chair of the task group

SUBCOMMITTEES:

NFRC Definition & Purpose: Subcommittees are formed from the membership at the discretion of the appropriate Committee Chairman and with the approval of the Board of Directors. They are responsible for tasks given to them by the Committee as they relate to the development of specific programs or procedures. Subcommittee findings and recommendations are reported to the Committee responsible for its formation.

Current Listing Available: <http://www.nfrc.org/subcommittees.aspx>

Requirements and Details:

- NFRC Membership qualifies for one vote per Subcommittee - *Membership Listing can be found at <http://www.nfrc.org/memberlist.aspx>*
- ALL voting members of the NFRC are automatically subcommittee members and allowed ONE VOTE per company at the subcommittee level.
- Ballots are issued via the NFRC website (www.nfrc.org) and voted on prior to NFRC Membership meetings – subcommittee membership qualifies one to vote on these ballots. (*One vote per member company*)
- Subcommittee meetings held at the NFRC Membership Meetings often hold final votes for balloted items. ***All voting members present are qualified to vote regardless of previous meeting attendance. One vote per Member Company.***
- Information on becoming an NFRC Member can be found at <http://www.nfrc.org/memberinfo.aspx> or by emailing membership@nfrc.org.



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Guide to the different levels of participation – continued.....

COMMITTEES:

NFRC Definition & Purpose: Committees are mandated by the Bylaws or formed at the direction of the Board of Directors from the membership. They are generally responsible for the establishment of NFRC procedures and programs which are presented to the Board of Directors for final approval before implementation.

Current Listing Available: <http://www.nfrc.org/committees.aspx> for further details.

- Members Appointed by Board:
 - Accreditation Policy Committee
 - Certification Policy Committee
 - Technical Interpretations Policy Committee

- NFRC Member Supported (see below for details):
 - Regulatory Affairs and Marketing Committee
 - Ratings Committee
 - Research and Technology Committee
 - Technical Committee

Requirements and Details:

- NFRC Committee Rosters (aka Committee Membership) are either BOARD appointed or are made up of interested member companies (Companies paying dues for NFRC Membership).
- To JOIN Member Supported COMMITTEE – Member must attend one meeting - signing the roster being sure to mark interest in having name added to the roster (becoming a voting member of the committee).
- Only one vote is allowed per NFRC dues paying Member Company.
- Member Name/Company Name will be added to the Committee Roster at the next meeting.
- Member Name/Company Name will be DROPPED from Roster if Representative misses TWO CONSECUTIVE COMMITTEE MEETINGS (fails to sign the roster as present)
- All current committee rosters are posted on the NFRC website prior to committee meetings for membership review or by contacting the Committee Chair or the NFRC's membership department at membership@nfrc.org.





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ACRONYMS/TERMINOLOGY*

NFRC – National Fenestration Rating Council – a nonprofit research/educational organization (501(c) 3) who develops and administer energy-related rating and certification programs that serve the public by providing fair, accurate, and credible information on fenestration performance.

ACE – Approved Calculation Entity: An individual, who has attended an NFRC Calculation Training Workshop, completed and passed all necessary examinations, and has obtained a Certificate of Approval which qualifies him or her to carry out performance calculations of fenestration products for certification using the Component Modeling Approach.

ASL/ATL – Accredited Simulation/Testing Laboratory: Computer simulation or testing laboratory that has met NFRC Laboratory Accreditation Program (LAP) requirements, has entered into a NFRC laboratory License Agreement, and received a NFRC Certificate of Accreditation, none of which has been revoked.

CAMP – Compliance and Monitoring Program: NFRC administers this program that monitors program activity and assists and educates architects, builders, code officials and other regulatory agencies. (NFRC 707)

CAP – Certification Agency Program: NFRC administers this program which includes a set of rules and procedures by which an independent certification and inspection agency becomes licensed and operates. (NFRC 702)

CEAP – Calculation Entity Approval Program: NFRC administers this program that contains the rules and requirements for becoming an Approved Calculation Entity (ACE) and ACE Organization in the CMA Program. The governing document for this program is the NFRC 708.

CMA – Component Modeling Approach: A new rating methodology being developed by NFRC to address fenestration in commercial buildings.

CMA PCP – Component Modeling Approach Product Certification Program: NFRC administers this program which contains the rules and requirements for component manufacturers/participants seeking spacer and frame component approval and Specifying Authorities seeking product certification by requesting a CMA Label Certificate. The governing document for this program is the NFRC 705. The program is being piloted in 2009 and is to be fully implemented in 2010.

CMAST CPD – Component Modeling Approach Software Tool Certified Products Directory: A freely accessible, web-based directory administered by NFRC that provides energy rating information for non-residential fenestration products as well as NFRC-approved components, and a listing of all CMA Label Certificates,

CPD – Certified Products Directory: A directory of fenestration products in electronic form, listing fenestration products and their performance ratings, for which product certification authorization has been granted by a licensed IA (inspection agency), and can be searched by the public.

Fenestration – Products that fill openings in a building envelope, such as windows, doors, skylights, curtain walls, etc., designed to permit or limit the passage of air, light, vehicles, or people.

Fenestration Attachment – A device (such as, but not limited to, shades, films, or blinds) designed to be physically attached to, incorporated with or covering a fenestration product.

Film: Fenestration attachment products which consist of a flexible adhesive-backed polymer film which may be applied to the interior or exterior surface of an existing glazing system. See Fenestration Attachment.



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IA - Independent Certification and Inspection Agency: An organization or person authorized by license to conduct specified services for the Certification Program.

LAP – Laboratory Accreditation Program: NFRC administers this program which contains the rules and requirements for licensed, accrediting thermal test and computer simulation laboratories. (NFRC 701)

PCP – Product Certification Program: NFRC administers this program which contains the rules and requirements for licensed manufacturers/participants to label windows (and responsible parties to produce Label Certificates). (NFRC 700)

Site-Built Program – A rating program developed in 1999 by NFRC to rate non-residential fenestration products.

NFRC Energy Performance Ratings

AL- Air Leakage: The volume of air flowing per unit time per unit area through a fenestration system due to air pressure or temperature difference between the outdoor and indoor environment. (NFRC 400).

CR- Condensation Resistance – A relative indicator of a fenestration product's ability to resist the formation of condensation at a specific set of environmental conditions. The higher the Condensation Resistance value the greater the resistance to the formation of condensation. (NFRC 500).

SHGC – Solar Heat Gain Coefficient: A rating that expresses the percentage of incident solar heat transmitted through a fenestration product; the lower the SHGC, the less solar heat gain (NFRC 200 and NFRC 201).

U-Factor – Thermal Transmittance: A rating that expresses the rate of heat flow through the fenestration product. The lower the U-factor, the less heat is allowed to transfer through the fenestration product (NFRC 100 and NFRC 102).

VT – Visible Transmittance: A rating that expresses the percentage of visible light transmitted through a fenestration product (NFRC 200).

Other Important Acronyms:

AAMA – American Architectural Manufacturers Association
AEC – Aluminum Extruders Council
AFRC – Australian Fenestration Rating Council
ANSI – American National Standards Institute
ASE – Alliance to Save Energy
ASHRAE – American Society of Heating, Refrigeration and Air-conditioning Engineers
ASTM International – *formerly known as ASTM*, The American Society of Testing and Materials
BIM – Building Information Modeling
CEC – California Energy Commission
CSA – Canadian Standards Association
DASMA – Door and Access System Manufacturers Association
EWC – Efficient Windows Collaborative (program under the Alliance to Save Energy)
GANA – Glass Association of North America

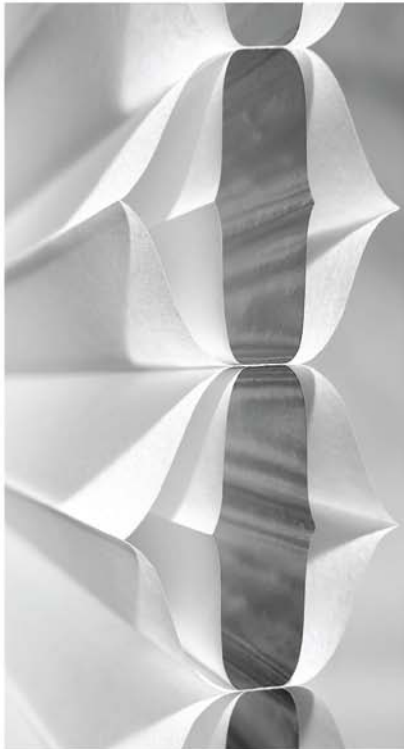
ICC – International Code Council
-IECC – *International Energy Conservation Code*
-IBC – *International Building Code*
-IRC – *International Residential Code*
IGCC – International Glass Certification Council
IGMA – Insulating Glass Manufacturers Alliance
ISO – International Organization of Standardization
IWFA – International Window Film Association
LBNL – Lawrence Berkeley National Laboratories
LEED – Leadership in Energy and Environmental Design
NGA – National Glass Association
Title 24 – Building Energy Standard for California
WDMA – Window and Door Manufacturers Association

**For a detailed Glossary please see the NFRC 600 Glossary and Terminology-2009-E0A0.
Available on the NFRC website at <http://www.nfrc.org/technicaldocs.aspx>*



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NFRC Sponsor Education Page



PROUD MEMBER OF THE NFRC

Hunter Douglas is honored to be working in collaboration with the NFRC and its members to establish a uniform rating system that communicates the significant energy-saving benefits interior window coverings can contribute to residential and commercial buildings.

Researching and developing forward-thinking new product designs that deliver increased insulation, solar heat management, UV protection and other benefits that reduce energy consumption and create a more comfortable space is a key component of our *Hunter Green* environmental-consciousness program. As the window coverings industry leader, we stand committed to this important cause and look forward to a strong and mutually beneficial partnership with the NFRC.

The patented cell-within-a-cell construction of Duettes® Architella® honeycomb shades is the latest energy-saving design innovation from Hunter Douglas.

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NFRC Meeting Sponsors at the Gold and above levels get an opportunity to educate the NFRC meeting attendees through information in the NFRC Meeting Program Book as well as onsite at the meeting. If you want to find out more about the NFRC Meeting Sponsorship program contact Cheryl Gendron, NFRC's Meeting Manager at cgendron@nfr.org.



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Pre-Registration List – (by Company Name)

*Note -all registrations received (with payment) by 11/2/2009

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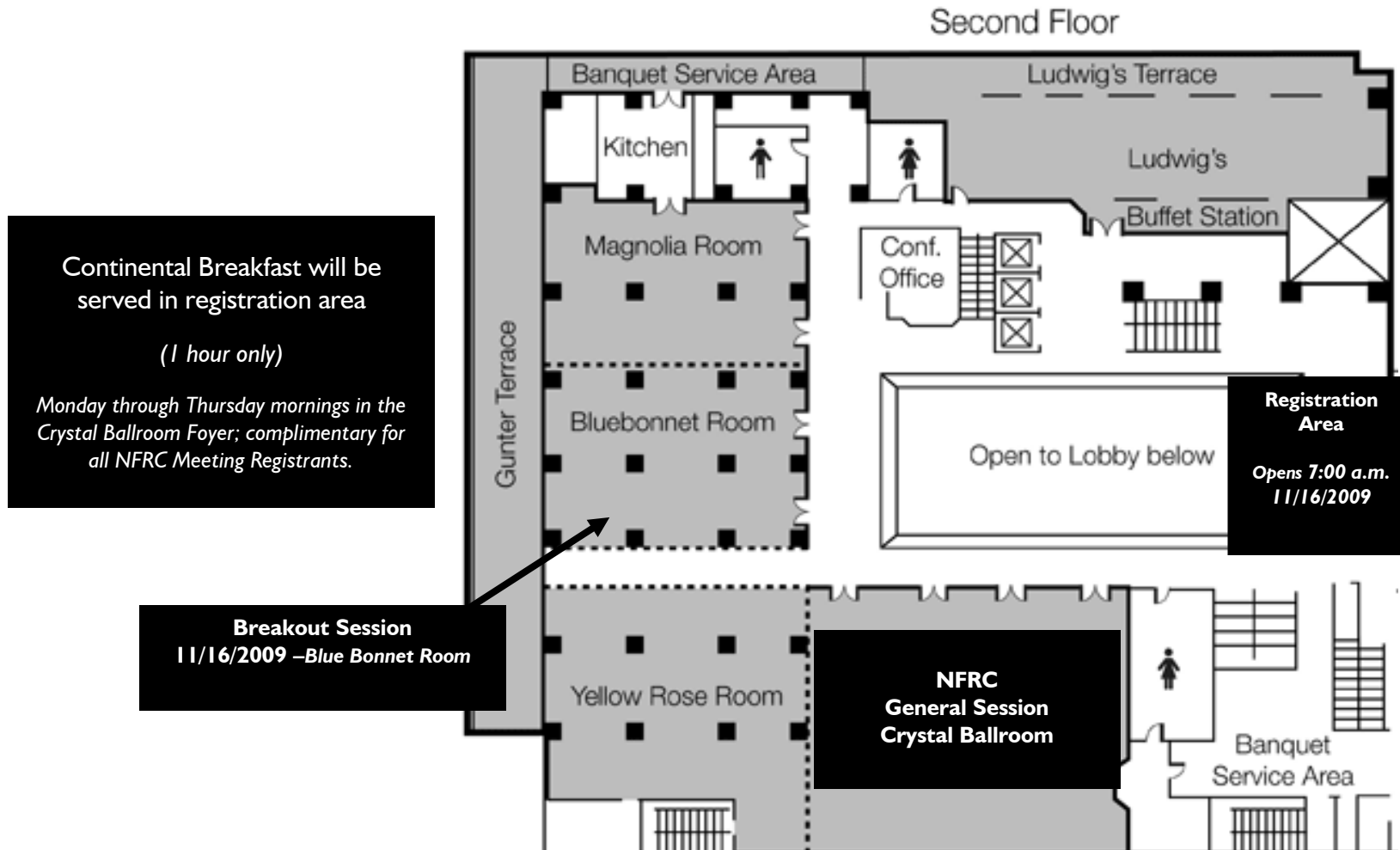
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