



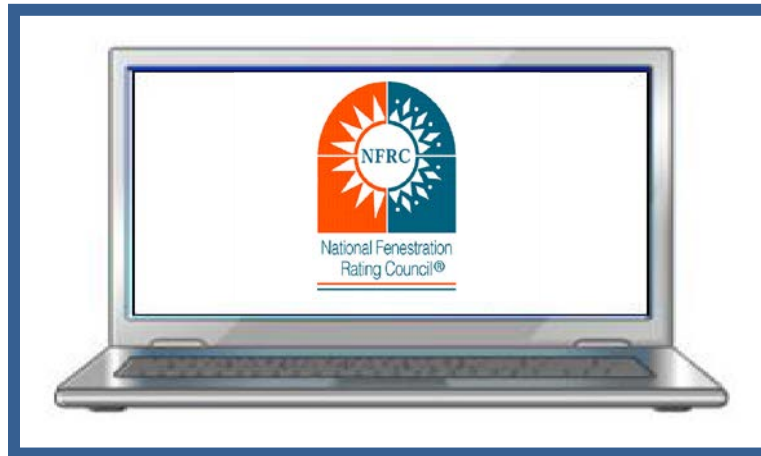
# PROGRAM BOOKLET

*(Agendas, Draft Minutes & Committee Rosters enclosed)*

**NFRC 2011 Virtual Committee Week**

**\*\*\*Webinar\*\*\***

**July 18 – 20, 2011**



**National Fenestration Rating Council**

6305 Ivy Lane, Suite 140

Greenbelt, MD 20770

301/589-1776

[www.nfrc.org](http://www.nfrc.org)



NFRC 2011 Virtual Committee Week – Summer 2011  
 July 18-20, 2011, Webinar  
**Program Booklet**

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*\*\*Due to Virtual Meeting, Program Booklet is only available via Download\*\**

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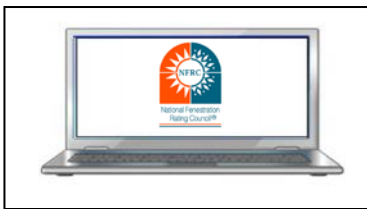
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\* Subcommittees under the Technical Block (Monday and Tuesday) will run consecutively as time allows; groups listed on the table of contents/schedule will go in order, but date/time is not guaranteed.







# NFRC 2011 Summer Committee Week

## ~VIRTUAL~

### Meeting Schedule



Times (all EDT)	Monday 07/18/11	Tuesday 07/19/11	Wednesday 07/20/11
8:00 a.m.	<i>Meeting Site will be available 2 hours prior to the posted start time.</i>		
9:00 a.m.			
10:00 a.m.	<b>Research &amp; Technology Committee Block</b> (10:00 a.m. – 3:00 p.m. EDT)  <b>Subcommittees to Convene:**</b> <ul style="list-style-type: none"> <li>• <a href="#">Research SC</a></li> <li>• <a href="#">Thermophysical Property of Materials SC</a></li> <li>• <a href="#">Optical Properties SC</a></li> </ul> <i>Research &amp; Technology Committee</i> will convene after short break once all Subcommittees have adjourned.	<b>Technical Committee Block</b> (10:00 a.m. – 12:30 p.m. EDT)  <b>Subcommittees to Convene:**</b> <ul style="list-style-type: none"> <li>• <a href="#">Solar Heat Gain SC</a></li> <li>• <a href="#">CMA (Technical) SC</a></li> <li>• <a href="#">Attachment SC</a></li> </ul> <i>Technical Committee</i> will convene after short break once all Subcommittees have adjourned.	<b>NFRC Board Meeting Block</b> (10:00 a.m. – 1:30 p.m. EDT)  Action items from Committee Meetings will be reviewed and voted on by the <a href="#">NFRC Board of Directors</a> ; this meeting is open to all NFRC Committee Week Registrants.
11:00 a.m.			
12:00 p.m.	<b>Meeting Break</b> (12:30 p.m. – 1:30 p.m. EDT)		
1:00 p.m.	<b>Research &amp; Technology Committee Block</b> Continued...  <i>Research &amp; Technology Committee</i> will convene after short break once all Subcommittees have adjourned.	<b>Ratings Committee Block</b> (1:30 p.m. – 6:30 p.m. EDT)  <b>Subcommittees to Convene:**</b> <ul style="list-style-type: none"> <li>• <a href="#">NFRC 700 (PCP) SC</a></li> <li>• <a href="#">NFRC 705 (CMA) SC</a></li> <li>• <a href="#">NFRC 712 (Attachments) SC</a></li> </ul> <i>Ratings Committee</i> will convene after short break once all Subcommittees have adjourned.	
2:00 p.m.			
3:00 p.m.	<b>Technical Committee Block</b> (3:00 p.m. – 6:30 p.m. EDT)  <b>Subcommittees to Convene:**</b> <ul style="list-style-type: none"> <li>• <a href="#">Ventilation Rating SC</a></li> <li>• <a href="#">Daylighting Rating SC</a></li> <li>• <a href="#">Annual Energy Performance SC</a></li> <li>• <a href="#">Air Leakage SC</a></li> <li>• <a href="#">Condensation Resistance SC</a></li> <li>• <a href="#">Software SC</a></li> <li>• <a href="#">U-factor SC</a></li> </ul>		
4:00 p.m.	<b>Technical Committee</b> continued 10:00 a.m. EDT on 07/19/11**		
5:00 p.m.			
6:00 p.m.			
6:30 p.m.**	<i>Daily End time is an estimate; meeting will end as close to 6:30 p.m. EDT as possible. The block will run each day until all agenda items are complete or at the chair's discretion.</i>		

\*\*Subcommittees posted under each committee block will run consecutively as time allows. Groups listed will go in order but time/date is not guaranteed.

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



National Fenestration  
Rating Council®

## BOARD OF DIRECTORS

### CHAIR

Steve Strawn  
JELD-WEN, Inc.

### VICE-CHAIR

Kerry Haglund  
Center for Sustainable Building  
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Executive Director  
James C. Benney

July 2011

Dear NFRC Members and Guests:

It is my distinct pleasure to welcome you to NFRC's second annual virtual meeting.

As we gather to build on the success we achieved during last year's first meeting, I am reminded of one of the many things that made it successful -- the high level of collaboration.

During our first virtual meeting, we communicated effectively in a new and vastly different environment. This revealed the depth of our members' passion for NFRC's mission and their commitment to improving our programs. It also revealed their ability to transcend geographical boundaries so they could interact to solve problems, engage one another, and nurture new ideas.

I am encouraged by our ability to adapt as technology evolves. Creating new ways to collaborate ultimately creates new ideas and innovations.

New forms of collaboration open the door for voices representing unique and diverse opinions. The more voices we hear, the better our chances of developing strategies and solutions for overcoming our challenges. New forms of collaboration also establish new pathways that enable us to unite our resources so we can thoroughly address and resolve the issues that affect all of us.

Finally, new forms of collaboration allow the many to operate as one. As we find new ways to work together, our members gain even greater access to the knowledge their fellow members possess -- and this benefits everyone NFRC reaches.

As the meeting proceeds, please remember that your voice is important. We are all responsible for the quality of our organization, and the only way NFRC can truly fulfill its mission is for everyone to share their ideas.

That's really what collaboration is all about, and I'm confident we will see plenty of it this week during our virtual meetings.

Sincerely,

Steve Strawn

Chair, NFRC Board of Directors



## **NFRC's Summer 2011 VIRTUAL Committee Week** **SPECIAL NOTES**

### **Frequently Asked Questions** ([abbreviated, for additional FAQs, click here](#))

#### **What are the times of the NFRC's Virtual Meeting?**

The upcoming Virtual Committee Week will be Monday, July 18<sup>th</sup> -20<sup>th</sup>, 2011 - with each day starting at 10:00 a.m. and concluding at 6:30 p.m. (estimated – meeting will end when agenda items are complete or at the Chair's discretion). Each day there will be a break between 12:30 p.m. – 1:30 p.m. All times listed are Eastern Daylight time (EDT). *A detailed schedule is included in the Program Booklet – [click here to access](#).*

#### **What is the difference between a Membership Meeting and a Committee Week Meeting?**

The NFRC Committee Week Meeting is a streamlined gathering for moving motions and other important NFRC business through the subcommittee, committee and board levels. While sharing many of the characteristics of the NFRC Membership Meeting the NFRC Committee Week Meetings (virtual or face-to-face) will only host the following committees and their subsequent subcommittees, followed by a board meeting for final approval/discussion:

1. Research and Technology Committee
2. Technical Committee
3. Ratings Committee

Therefore you can expect these items to be different than at a traditional NFRC Membership Meeting:

- Three days in length
- Committee Weeks: virtual meeting will be once a year; face-to-face once a year
- No Task Group meetings – Task Groups will meet prior to the meetings on their own at various scheduled times. When appropriate they will report at the Committee Week during the subcommittee portion.
- No Board Committees Reporting – The NFRC Policy Committees will meet on their own at various scheduled times. They will continue to meet/report to the membership at the NFRC Membership Meeting (once per year in the Fall). These groups include the Accreditation Policy Committee, Technical Interpretation Policy Committee, and the Certification Policy Committee.
- No Regulatory Affairs and Marketing Meeting (unless action is expected/required)
- No organized/association sponsored networking events

#### **What are the system requirements for attending the NFRC Virtual Committee Week via GO-TO Webinar?**

- Internet Explorer® 6.0 or newer, Mozilla® Firefox® 3.0 or newer (JavaScript™ and Java™ enabled)
- Windows® 2000, XP, 2003 Server, Vista or Windows® 7
- Minimum Broadband Internet connection
- Minimum of Pentium® class 1GHz CPU with 512 MB of RAM (recommended) (2 GB of RAM for Windows® Vista)
- Participants wishing to connect to audio using VoIP will need a fast Internet connection, a microphone and speakers. (A USB headset is recommended.)

#### **How will I receive access to the virtual meeting site?**

Once registration and payment are received by the NFRC you will receive a detailed receipt including an individualized link to login to the NFRC's Virtual Committee Week meeting.

- Your link will be specific to your registration/email address.
- Your link will be good for all three days of the meeting.



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**Speaking and Assistance during the Committee Week meeting:**

All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.

- To speak on a topic, please raise the virtual hand to be recognized in turn.
- If you have any challenges please click on “Enter a Question,” type question/comment and hit send. Question will be routed to proper staff or volunteer. You may also send an email to [webinar-help@nfr.org](mailto:webinar-help@nfr.org).
- NFRC is using the GoTo Webinar platform to host the virtual meeting and Turning Technology’s RW Poll to allow for member voting. Both organizations have their own support lines which have excellent support staff available prior to and during the meeting times.
  - GoTo Global Support: 888/259-8414
  - RW Poll Support: 877/726-4602

**NFRC Member Voting – Online, Easy, Secure**

Similar to the face-to-face meetings a call to vote will be announced by the Chair of the Committee/Subcommittee. The member only/committee only vote will be done via the Turning Technologies RW Poll program. Voting members will have received (in advance) a separate email with a login and a specific session ID to participate. This will be a separate internet window from the GO-TO Webinar.

There will be one vote login per member company; **NO registrations/proxies will be accepted after July 14th, 2011.**

***These are only a select few of some of the most ‘Frequently Asked Questions’ [for additional details click here.](#)***



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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## **Research Subcommittee**

Monday, July 18, 2011

*Block Period: 10:00 a.m. to 12:30 p.m.; 1:30 p.m. to 3:00 p.m.*

*Chair: Bipin Shah, WinBuild*

*Vice Chair: Peter Lyons, Peter Lyons and Associates, Inc.*

---

### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.
  - ii. \*\*\* Research and Technology Block SAMPLE VOTE NOW \*\*\*
    1. Question: Is it sunny outside where you are?

### **2. Appoint Recording Secretary**

### **3. Approve Minutes from March 2011 meeting in Las Vegas, NV**

### **4. Review and approve agenda**

### **5. Reports**

- a. Research Project Status and Financial Summary-Ray McGowan, staff
- b. Window 6-Therm 6 Validation Research PMTG-Joe Hayden, Pella
- c. Condensation Resistance Procedure for CMA PMTG-Kevin Vilhauer, Milgard
- d. TDD VT Rating Research TG-LBNL-Charlie Curcija, LBNL
- e. Gas Permeability Research (IGMA project, NFRC cosponsoring)-Werner Lichtenberger, Truseal
- f. Ventilation Rating TG-Ray Garries, Jeld-Wen



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- g. CMA Improved Algorithm Research Bid Review Task Group-Tom Culp
- h. Translucent Product VT Measurement presentation-Yossi Vinograd, CPI Daylighting
- 6. Unfinished Business**
  - a. Ventilating Rating TG reporting to Ventilating SC or Research SC
- 7. New Business**
  - a. Complex Product VT Rating RFP ballot-Roger LeBrun, Velux
- 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: Ray McGowan, Senior Program Manager, [rmcgowan@nfr.org](mailto:rmcgowan@nfr.org)**



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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**\*\*\*DRAFT MINUTES\*\*\***

**Research Subcommittee**

Monday, March 28, 2011

*Block Period: 8:00 a.m. to 11.30 a.m.; 12:30 p.m. to 2:00 p.m.*

*Chair: Bipin Shah, WinBuild*

*Vice Chair: Peter Lyons, Peter Lyons and Associates, Inc.*

---

1. Chair called the meeting to order at 8:46 a.m. - antitrust reminder given and reviewed voting requirements
2. Minutes from November 2010 meeting in San Francisco, CA meeting were approved as presented.
3. Stacy Germann (Staff) appointed recording secretary
4. The agenda was reviewed and approved adding one presentation VT Rating Translucent material by Yossi Vinograd, CPI Daylighting for under new business.
5. Reports
  - a. Research Project Status and Financial Summary-Ray McGowan, staff
    - i. Funding is getting low and if all projects are approved further financial distress is likely.
  - b. Window 6-Therm 6 Validation Research P.M.TG-Joe Hayden, Pella
    - i. Research is complete and data analysis is underway.
      1. Willie du Pont presented the TG's status and results.
        - a. Inconsistency with base case window results has presented the possibility of unreliability with procedures in 100A and 200A.
      - ii. **MOTION:** J.Hayden, Pella/D.DeBlock, ODL Motion to approved extension of project deadline to Summer Meeting. Motion passes 49-0-2
  - c. Condensation Resistance Procedure for CMA P.M.TG-Kevin Vilhauer,
    - i. C. Curcija presented an update on the TG.
      1. Calculating CR for CMA using fictitious end points has presented significant issues. Moving towards using actual end points could improve other ratings in CMAST. TG needs to meet to discuss plan of action.
      2. **MOTION:** K.Vilhauer/M.McDonald. Motion to approve project extension. Motion passes 45-0-4
      3. M. McDonald requested to be added to the TG roster.
  - d. Long Range Research Planning TG-Bipin Shah, WinBuild
    - i. B. Shah reminded membership to keep research projects coming in.
  - e. Complex VT Rating Research P.M.TG-Ross McCluney, Willie duPont
    - i. Project to renamed as TDD VT Rating Research TG and add Charlie Curcija, LBNL as chair
    - ii. New TDD research has come from LBNL and will be presented at future meeting after research is completed.
  - f. Gas Permeability Research (IGMA project, NFRC cosponsoring)-Werner Lichtenberger, Truseal
    - i. New RFP is coming using "total unit" approach.
  - g. Ventilation Rating TG-Ray Garries, Jeld-Wen
    - i. R. Garries presented an update on the TG status.
    - ii. A calculation rating was proposed on a 0-100 (0 being no ventilation) scale that was developed based on a calculation of product size.



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1. Screens are being considered and included as well.
    - iii. A point was made to create the “water heater” scale comparing same products.
  - h. VT Rating Translucent material-Yossi Vinograd, CPI Daylighting
    - i. Presented to the group a significant misstep in NFRC published ratings. Misleading VT ratings are being used by specifiers, architects, and owners.
    - ii. Suggests requiring all manufacturers of translucent fiberglass sandwich panels and polycarbonate multi-cell panels to publish the same uniform VT test data required for other glazing products for NFRC certified products.
    - iii. Under current methodology NFRC does not have the capability to provide VT ratings for all products.
    - iv. Item to be added as new business for SHGC SC under Technical Committee to form a TG to develop a ballot.
  - i. Daylighting Potential Rating TG-Roger LeBrun, Velux
    - i. TG has been asked by BOD chair to redirect their scope to be more of a sounding board. TG leadership will be refocusing the TG.
6. Unfinished Business
- a. RFP ballot: *Research and Coordination to Develop an ASTM Energy Performance Durability Test* (US DOE, Marc LaFrance)
    - i. AAMA Negative **MOTION:** K. Brenden, AAMA/D. De Block, ODL. Motion to find negative persuasive and substantive. Motion passes 34-6.
  - b. RFP Ballot: *Spandrel System Performance Validation Study RFP* (Catherine Best, Benson Industries; Charlie Curcija, LBNL)
    - i. Pella Negative **MOTION:** J.Hayden, Pella/D.De Block, ODL. Motion to find negative persuasive and substantive. Motion passes UVV.
    - ii. Sunergy Negative **MOTION:** W.duPont, Sunergy. Withdrawn under previous action.
    - iii. IGMA Negative **MOTION:** C.Curcija, LBNL/P.Lyons, Lyons Associates. Motion to find negative non-persuasive. Motion passes 37-6.
    - iv. AAMA Negative; Withdrawn under previous action.
    - v. ODL Negative; Withdrawn under previous action.
    - vi. Associated Labs Negative; Withdrawn under previous action.
    - vii. ATI Negative Withdrawn under previous action.
      1. Research Manual TG will consider language to generic bidders request in RFP
  - c. RFP ballot: *Develop a Method for Evaluating Thermal Stresses in Insulating Glass RFP* (Valerie Block, DuPont Glass Laminating Solutions)
    - i. **MOTION:** M. Thoman, ATI/M. McDonald. Motion to withdraw the ballot for consideration due to incorrect submission. Motion withdrawn.
    - ii. Pella Negative **MOTION:** J. Hayden, Pella/M. Thoman, ATI. Motion to find the negative persuasive and substantive and direct proponent to submit a request for funding to Research SC. Motion passes 41-0.
    - iii. Resubmitted RFF in place of RFP **MOTION:** B. Lingnell, IGMA/D. De Block, ODL. Motion to request full funding from BOD. Motion passes 28-4.
  - d. RFP ballot: *Research and Coordination to Upgrade ASTM 2190 for IGU Durability Testing RFP* (US DOE, Marc LaFrance)
    - i. AAMA Negative **MOTION:** K. Brenden, AAMA/D. De Block, ODL. Motion to find negative persuasive and substantive. Motion passes 25-7.
    - ii. ATI Negative Withdrawn under previous action.
    - iii. AMSCO Negative Withdrawn under previous action.
    - iv. Assoc Labs Negative Withdrawn under previous action.
    - v. Assoc Materials Negative Withdrawn under previous action.



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- vi. Cardinal Glass Negative Withdrawn under previous action.
  - vii. Guardian Negative Withdrawn under previous action.
  - viii. IGMA Negative Withdrawn under previous action.
  - ix. Inex Spacer Negative Withdrawn under previous action.
  - x. JELD-WEN Negative Withdrawn under previous action.
  - xi. Keystone Negative Withdrawn under previous action.
  - xii. NewPro Manufacturing Negative Withdrawn under previous action.
  - xiii. Pella Negative Withdrawn under previous action.
  - xiv. Sunergy Negative Withdrawn under previous action.
  - xv. Velux Negative Withdrawn under previous action.
  - xvi. WESTLab Negative Withdrawn under previous action.
7. New Business
- a. CMA Improved Algorithm Bid Review TG-Tom Culp
    - i. Received one bid they are currently reviewing for Summer Meeting.
8. The meeting was adjourned at 1:18 p.m.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



## Program Booklet

### Thermophysical Properties Subcommittee

Monday, July 18, 2011

*Block Period: 10:00 a.m. to 12:30 p.m.; 1:30 p.m. to 3:00 p.m.*

*Chair: Dr. Charlie Curcija, LBNL*

*Vice Chair: Peter Lyons, Peter Lyons Associates*

**1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

**2. Appoint Recording Secretary**

**3. Approve Minutes from March 2011 meeting in Las Vegas, NV**

**4. Review and approve agenda**

**5. Reports**

- a. Thermophysical Property manufacturer specific submissions-Ray McGowan, staff
- b. Update on Thermophysical Properties Interlaboratory Comparison
- c. NFRC 101 Task Group Report-Joe Hayden, Pella

**6. Unfinished Business**

**7. New Business**

- a. NFRC 101/103 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.*

Committee Chain: \* Research and Technology Committee \* *Thermophysical Properties Subcommittee*  
NFRC Staff: Ray McGowan, Senior Program Manager, [rmcgowan@nfr.org](mailto:rmcgowan@nfr.org)



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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**\*\*\*DRAFT MINUTES\*\*\***

**Thermophysical Properties Subcommittee**

Monday, March 28, 2011

*Block Period: 8:00 a.m. to 11:30 a.m.; 12:30 p.m. to 2:00 p.m.*

*Chair: Dr. Charlie Curcija, LBNL*

*Vice Chair: TBD*

---

1. Chair called the meeting to order at 8:19 a.m. - antitrust reminder given and reviewed voting requirements
2. Minutes from November 2010 meeting in San Francisco, CA meeting were approved as presented.
3. Stacy Germann (Staff) appointed recording secretary
4. Reports
  - a. Thermophysical Property manufacturer specific submissions-Ray McGowan, staff
    - i. 3 new material approvals since November 10, 2 new materials just submitted last week.
  - b. NFRC 101 Task Group Report-Joe Hayden, Pella
    - i. TG has met 3-4 times, no action items, they are moving towards a complete rewrite of NFRC 101 and combining NFRC 101 and NFRC 103. The suggestion was made that the Optical Properties documents were separated the same way and will be considered at the SC level. Ballot for the new purposed document will be ready for ballot for Summer Virtual Meeting. Chair Curcija encouraged membership to participate in the TG.
  - c. Electronic version of Appendix B Tables
    - i. Chair Curcija said nothing to report and item is tabled until new document is written, then electronic version will be developed.
5. New Business
  - a. Consider thermophysical property ILC test result submission for addition to NFRC approved testing labs
    - i. Require two standard deviation as a requirement for fulfilling ILC and retest all four samples and provide justification for results
    - ii. The suggestion was made to develop language for NFRC 103 to handle such situations
  - b. Appoint new vice chair
    - i. Peter Lyons volunteered.
6. The meeting was adjourned at 8:46 a.m.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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## **Optical Properties Subcommittee**

Monday, July 18, 2011

*Block Period: 10:00 am to 12:30 pm; 1:30 pm to 3:00 pm*

*Chair: Sneh Kumar, TRACO (Jacob Jonsson, LBNL)*

*Vice Chair: TBD*

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### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

### **2. Appoint Recording Secretary**

### **3. Approve Minutes from March 2011 meeting in Las Vegas, NV**

### **4. Review and approve agenda**

### **5. Reports**

- a. Optical Properties Database Development-Christian Kohler
- b. NFRC 302 TG-Jim Larsen
- c. Attachment Optical Properties TG - Tom Morrissey
- d. Non-planar Simulation TG - Charlie Curcija
- e. Daylighting Potential Rating TG-Mudit Saxena, Roger LeBrun
- f. ISO activity-Charlie Curcija

### **6. Unfinished Business**

### **7. New Business**

- a. NFRC 302 Ballot



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- b. Discuss Daylighting Rating Potential Rating TG move to Daylighting SC

**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.*

Subcommittee Chain: Research and Technology Committee \* Optical Properties Subcommittee  
NFRC Staff Liaison: Ray McGowan, Senior Program Manager, [rmcgowan@nfr.org](mailto:rmcgowan@nfr.org)



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



NFRC 2011 Virtual Committee Week – Summer 2011  
July 18-20, 2011, Webinar  
**Program Booklet**

**\*\*\*DRAFT MINUTES\*\*\***

**Optical Properties Subcommittee**

Monday, March 28, 2011

*Block Period: 8:00 am to 11.30 am; 12:30 pm to 2:00 pm*

*Chair: Sneh Kumar, TRACO (Jacob Jonsson, LBNL)*

*Vice Chair: TBD*

---

1. Chair called the meeting to order at 1:19 p.m. - antitrust reminder given and reviewed voting requirements
2. Minutes from November 2010 meeting in San Francisco, CA meeting were approved as presented.
3. Stacy Germann (Staff) appointed recording secretary.
4. The agenda was reviewed and edited.
  - a. 5.e added the word "Potential" after Daylighting.
  - b. Edited chair as Jacob Jonsson, LBNL.
5. Reports
  - a. Optical Properties Database Development-Christian Kohler
    - i. C. Kohler presented update and status on the Complex Glazing DB development project.
  - b. NFRC 302 TG-Jim Larsen
    - i. Nothing to report. Will convene before next meeting.
  - c. Attachment optical properties TG - Tom Morrissey
    - i. No TG meeting since Fall meeting. WGs continue to meet and a ballot expected for Summer meeting. TG will convene after Spring meeting.
  - d. Non-planar Simulation TG - Charlie Curcija
    - i. Work ongoing with ASHRAE to develop modeling on non-planar products. Report expected for summer meeting.
  - e. Daylighting Potential Rating TG-Mudit Saxena, Roger LeBrun
    - i. Nothing to report.
  - f. ISO activity-Charlie Curcija
    - i. Continue to struggle with colleagues using out-dated ISO standards.
6. New Business
  - a. Appoint New Chair and Vice Chair – taken care of by BOD.
7. The meeting was adjourned at 1:51 p.m.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



NFRC 2011 Virtual Committee Week – Summer 2011

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### Research and Technology Committee

Monday, July 18, 2011

*Block Period: 10:00 a.m. to 12:30 p.m.; 1:30 p.m. to 3:00 p.m.*

*Chair: Werner Lichtenberger, Truseal Technologies*

*Vice Chair: Dave DeBlock, ODL, Inc.*

---

#### 1. Call to Order

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Question will be routed to proper staff or volunteer.
- d. Review committee voting requirements: one vote per Member Company listed on the roster
  - i. Members will use a session ID (NFRC2011RESTEC) reserved for THIS COMMITTEE ONLY (password information has been sent to Committee MEMBERS via email). They will login via RWpoll.com to place their vote.
- e. Any member wanting to add name to committee should email [meetings@nfrc.org](mailto:meetings@nfrc.org). Eligible names will be added before the NEXT meeting.

#### 2. Appoint Recording Secretary

#### 3. Roll Call, Quorum Establishment

#### 4. Approve Minutes from Spring 2011 meeting in Las Vegas, NV

#### 5. Review and approve agenda

#### 6. Reports

- a. Research SC-Bipin Shah, WinBuild
- b. Optical Properties SC-Jacob Jonsson, LBNL
- c. Thermophysical Properties SC-Dr. Charlie Curcija, LBNL

#### 7. Unfinished Business

- a. Discuss new chair of Research and Technology Committee

#### 8. New Business

#### 9. Adjourn



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**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*
- *Research*
- *Thermophysical Properties*

*This Committee reports to the Board*

*NFRC Staff Liaison: Ray McGowan, Senior Program Manager, [rmcgowan@nfr.org](mailto:rmcgowan@nfr.org)*



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



NFRC 2011 Virtual Committee Week – Summer 2011  
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**Program Booklet**

**\*\*\*DRAFT MINUTES\*\*\***

**Research and Technology Committee**

Monday, March 28, 2011

*Block Period: 8:00 a.m. to 11:30 a.m.; 12:30 p.m. to 2:00 p.m.*

*Chair: Werner Lichtenberger, Truseal Technologies*

*Vice Chair: Dave DeBlock, ODL, Inc.*

---

1. Chair called the meeting to order at 1:52 p.m. - antitrust reminder given and reviewed voting requirements
2. Stacy Germann (Staff) appointed recording secretary.
3. Roll call was taken and a quorum was established.
4. Minutes from November 2010 Fall Membership meeting were approved as presented.
5. The agenda was reviewed and approved.
6. Reports
  - a. Research SC-Bipin Shah, WinBuild
    - i. W6/T6 Extension **MOTION:** B. Shah, WinBuild/D. DeBlock, ODL. Motion to extend project deadline to Summer 2011 membership meeting and forward to the BOD. Motion passes 32-0-2
    - ii. CMA CR Extension **MOTION:** B. Shah, WinBuild/ D. DeBlock, ODL. Motion to extend project deadline to Summer 2011 membership meeting and forward to the BOD. Motion passes 33-0-1
    - iii. Thermal Stress RFF **MOTION:** B. Shah, WinBuild/ J. Baker, WESTLab. Motion to approve the recommendation from the Research SC a request for funding to the BOD. Motion passes 35-0-1.
  - b. Optical Properties SC-Jacob Jonsson, LBNL
    - i. Jacob Jonsson will be requested as new Chair to the BOD.
  - c. Thermophysical Properties SC-Dr. Charlie Curcija, LBNL
    - i. No action items.
    - ii. Peter Lyons was approved as Vice Chair.
    - iii. NFRC 101 TG is moving forward with approval of merging NFRC 101 and NFRC 103 documents as one document.
7. The meeting was adjourned at 2:12 p.m.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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**Research and Technology Committee Roster\***

As of 6/28/2011

**Company Name**

Air-Ins	Manko Window Systems
Alkenz USA	Marvin Windows & Doors
Alliance to Save Energy	Mecho Shade Corporation
American Architectural Manufacturers Association	Milgard Manufacturing
AMSCO Windows	N T Window
Anderson Corporation	National Certified Testing Laboratories - NW
Architectural Testing, Inc.	Natural Light Energy Systems
Associated Laboratories, Inc.	Nysan Shading Systems, LP
Associated Materials, Inc.	ODL Incorporated
Atrium Companies Inc.	Pacific Gas and Electric
Baekert Specialty Film LLC	Pella Corporation
Birch Point Consulting LLC	Peter Lyons and Associates
California Energy Commission	Phifer Incorporated
Cardinal Industries	Pilkington North America, Inc.
Cascade Windows	Professional Awnings Manufacturers Association
Center for Sustainable Building Research	ProVia Door, Inc.
Champion Window	Roetzel and Andress
Chelsea Building Products	Royal Molding
CPI Daylighting	Royal Window and Door Profiles
Crystallite	Simonton Windows
Door & Access Systems Manufacturer's Assoc Intl	Soladigm
Gary Curtis - Consultant	Solatube International, Inc.
Edgetech	Solutia, Inc.
Enermodal	Southwall Technologies
Entech Solar	Stork Twin City Testing
Glen Raven, Inc.	Sun Pine Consulting, Inc.
Group 14 Engineering	Sunergy Consulting
Guardian Industries Corp.	Sunrise Window
Hanitater Window Films	TruSeal Technologies, Inc.
Heschong Mahone Group	Twitchell Corporation
Hunter Douglas, Inc.	Velux-America, Inc.
Hurricane Test Lab	WESTLab
Insulating Glass Manufacturers Alliance	William Rygg Consulting
International Window Film Association	WinBuild, Inc.
Jeld-Wen, Inc.	Window and Door Manufacturer's Association
Kinro	Window Covering Manufacturers Association
Lawrence Berkeley National Laboratory	Wiss, Janney, Elstner & Associates
Madico	

*\*Committee Membership requires members to sign up onsite at meeting (or by [sending an email](#) while attending meeting) for inclusion on roster/voting rights. Please note, if two consecutive meetings are missed without a voting representative being at the meeting (checked via meeting registration) the 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 after July 14, 2011:** [meetings@nfr.org](mailto:meetings@nfr.org)*



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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## **Ventilation Subcommittee**

Monday, July 18, 2011

*Under Technical Committee Block: \* 3:00 p.m. – 6:30 p.m.*

Chair: *Ray Garries, JELD-WEN*

Vice Chair: TBD

---

### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.
  - ii. \*\*\* Technical Block SAMPLE VOTE NOW \*\*\*
    1. Question: Is it sunny outside where you are?

### **2. Appoint Recording Secretary (NFRC STAFF)**

### **3. Review and Approve Agenda**

### **4. Reports**

- a. Ventilation Task Group

### **5. Unfinished Business**

### **6. New Business**

### **7. Adjourn**

---

## **SCOPE**

TBD

\* 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 \* Ventilation Subcommittee  
NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager \* [danderson@nfr.org](mailto:danderson@nfr.org)



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



NFRC Virtual Committee Week – Summer 2011  
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**Program Booklet**

**Daylighting Subcommittee**

Monday, July 18, 2011

*Under Technical Committee Block: \* 3:00 p.m. – 6:30 p.m.*

*Chair: Roger LeBrun, VELUX America, Inc.*

*Vice Chair: TBD*

**1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

**2. Appoint Recording Secretary (NFRC STAFF)**

**3. Review and Approve Agenda**

**4. Reports**

**5. Unfinished Business**

**6. New Business**

- a. Define scope and develop task list and assignments

**7. Adjourn**

\*\*\*\*\*

**SCOPE**

TBD

\* 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.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



NFRC Virtual Committee Week – Summer 2011  
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**Program Booklet**

**Annual Energy Performance Subcommittee**

Monday, July 18, 2011

*Under Technical Committee Block: \* 3:00 p.m. – 6:30 p.m.*

*Chair: Tom Culp, BirchPoint Consulting*

*Vice Chair: James Larsen, Cardinal Glass Industries, Inc.*

**1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows:
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

**2. Appoint Recording Secretary (NFRC STAFF)**

**3. Review and Approve Agenda**

**4. Approve Minutes from 2011 Spring Meeting in Las Vegas**

**5. Reports**

- a. International Activities
- b. Commercial AEP Task Group - TBD
- c. Attachments AEP Task Group – J. Gant

**6. Unfinished Business**

**7. New Business**

**8. Adjourn**

\*\*\*\*\*

\* 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.

**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 building characteristics and operation. The Annual Energy Performance Subcommittee shall report to the Technical Committee.

Committee Chain: Technical Committee \* Annual Energy Performance Subcommittee  
NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager \* [danderson@nfr.org](mailto:danderson@nfr.org)



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



NFRC 2011 Virtual Committee Week – Summer 2011  
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**Program Booklet**

**\*\*\* DRAFT MINUTES \*\*\***

**Annual Energy Performance Subcommittee**

Tuesday, March 29, 2011

*Under Technical Committee Block\*: 8:00 a.m. – 11:00 a.m.*

*Chair: Tom Culp, BirchPoint Consulting*

*Vice Chair: James Larsen, Cardinal Glass, Inc.*

---

1. T. Culp called the meeting to order at 8:00 a.m. - antitrust reminder given and reviewed voting requirements
2. Scott Hanlon (NFRC Staff) was appointed recording secretary
3. The agenda was reviewed and approved as presented.
4. The minutes from November 2010 (San Francisco) were approved as presented.
5. Reports
  - a. International Activities
    - i. ISO 18292 – C. Curcija reported that the document has been approved and is in the final preparation phase. This document is how to calculate energy performance in homes.
  - b. Commercial AEP TG – M. Bhandari
    - i. T. Culp reported that there is nothing to report. This TG will start to look at a standard procedure to calculate AEP for commercial buildings.
6. Unfinished Business
  - a. None
7. New Business
  - a. Attachments in NFRC 901

T. Culp reported that attachments can be specified in RESFEN and asked the membership for feedback if attachments are important for inclusion in NFRC 901.

J. Gant presented that the inclusion of attachments is important to this industry and will be pleased to support the efforts to include attachments in NFRC 901. J. Gant is willing to chair the NFRC 901 Attachments TG.
  - b. Commercial AEP TG
    - i. Need a new chair to replace M. Bhandari. It was asked if anyone is interested in chairing this TG to contact T. Culp or D. Anderson (Staff).
8. The meeting was adjourned at 8:16 a.m.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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## **Air Leakage Subcommittee**

Monday, July 18, 2011

*Under Technical Committee Block:\* 3:00 p.m. – 6:30 p.m.*

Chair: *Chris Nolt, ProVia Door*

Vice Chair: *Tracy Rogers, Edgetech IG, Inc.*

---

### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

### **2. Appoint Recording Secretary (NFRC STAFF)**

### **3. Review and Approve Agenda**

### **4. Approve Minutes from 2011 Spring Meeting in Las Vegas**

### **5. Reports**

- a. Air Leakage Task Group – Chris Nolt

### **6. Unfinished Business**

### **7. New Business**

- a. Inactivation of Air Leakage SC

### **8. Adjourn**

---

*\* 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.*

#### **SCOPE**

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

Committee Chain: Technical Committee \* Air Leakage Subcommittee  
NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager \* [danderson@nfr.org](mailto:danderson@nfr.org)



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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**\*\*\* DRAFT MINUTES \*\*\***

**Air Leakage Subcommittee**

Monday, March 28, 2011

*Under Technical Committee Block\*: 2:00 p.m. – 5:30 p.m.*

*Chair: Chris Nolt, ProVia Door, Inc.*

*Vice Chair: Tracy Rogers, Edgetech IG, Inc.*

---

1. C. Nolt called the meeting to order at 2:28 p.m. - antitrust reminder given and reviewed voting requirements
2. Scott Hanlon (NFRC Staff) was appointed recording secretary
3. The agenda was reviewed and approved as presented.
4. The minutes from November 2010 (San Francisco) were approved as presented.
5. Reports
  - a. Air Leakage Task Group – No action to report
6. New Business
  - a. None
7. The meeting was adjourned at 2:30 p.m.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



## **Condensation Resistance Subcommittee**

Monday, July 18, 2011

*Under Technical Committee Block: \* 3:00 p.m. – 6:30 p.m.*

*Chair: Kevin Vilhauer, Milgard Manufacturing, Inc.*

*Vice Chair: Steve Harp, Associated Materials*

### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

### **2. Appoint Recording Secretary (NFRC STAFF)**

### **3. Review and Approve Agenda**

### **4. Approve Minutes from 2011 Spring Meeting in Las Vegas**

### **5. Reports**

- a. CR Update
- b. Condensation Resistance discussion with CSA working group

### **6. Unfinished Business**

### **7. New Business**

### **8. Adjourn**

\*\*\*\*\*

\* 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.

### **SCOPE**

*The Condensation Resistance Subcommittee is responsible for developing and coordinating NFRC 500: Procedure for Determining Fenestration Product Condensation Resistance Values and NFRC 501: User Guide to the Procedure for Determining Fenestration Product Condensation Resistance Rating Values. The Condensation Resistance Subcommittee reports to the Technical Committee.*

Committee Chain: Technical Committee \* Condensation Resistance Subcommittee  
NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager \* [danderson@nfr.org](mailto:danderson@nfr.org)



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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**\*\*\*DRAFT MINUTES\*\*\***

**Condensation Resistance Subcommittee**

Monday, March 28, 2011

*Under Technical Committee Block\*: 2:00 p.m. – 5:30 p.m.*

*Chair: Kevin Vilhauer, Milgard Manufacturing, Inc.*

*Vice Chair: Steve Harp, Associated Materials, Inc.*

---

1. K. Vilhauer called the meeting to order at 2:25 p.m.- antitrust reminder given and reviewed voting requirements
2. Scott Hanlon (NFRC Staff) was appointed recording secretary.
3. The agenda was reviewed and approved as presented.
4. The minutes from November 2010 (San Francisco) were approved as presented.
5. Reports
  - a. Condensation Update – K. Vilhauer reported that there were findings in the data that required additional investigation. A TG may be formed to work with the results of the data.
  - b. CSA Working Group – J. Baker reported that the CSA group anticipates having a report completed shortly and can be reported to NFRC at the next meeting.
6. New Business
  - a. None
7. The meeting was adjourned at 2:28 p.m.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



## **Software Subcommittee**

Monday, July 18, 2011

*Under Technical Committee Block:\* 3:00 p.m. – 6:30 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
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

### **2. Appoint Recording Secretary (NFRC STAFF)**

### **3. Review and Approve Agenda**

### **4. Approve Minutes from 2011 Spring Meeting in Las Vegas**

### **5. Reports**

- a. WINDOW 6/ THERM 6 Approval TG – Joe Hayden
- b. CMAST Advisory TG – Catherine Best

### **6. Unfinished Business**

### **7. New Business**

- a. Complex Glazing Database (CGDB) presentation by LBNL

### **8. Adjourn**

\*\*\*\*\*

\* 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.

### **SCOPE**

*The scope of the Software Subcommittee is to:*



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- *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.*

**Committee Chain: Technical Committee \* Software Subcommittee**  
**NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager \* [danderson@nfr.org](mailto:danderson@nfr.org)**



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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**\*\*\* DRAFT MINUTES \*\*\***  
**Software Subcommittee**

Monday, March 28, 2011

*Under Technical Committee Block Period: 2:00 p.m. – 5:30 p.m.*

*Chair: Brian Crooks, Cardinal Glass Industries, Inc.*

*Vice Chair: Jim Krahn, Marvin Windows & Doors*

---

1. Chair called the meeting to order on Monday, March 28<sup>th</sup>, at 4:26 p.m. - antitrust reminder given and reviewed voting requirements
2. Sherri Wendt (Staff) appointed recording secretary
3. The agenda was reviewed and approved as presented.
4. Minutes from November 2010 San Francisco meeting were approved as presented.
5. Reports
  - a. WINDOW 6/ THERM 6 Approval TG – J. Hayden reported that the TG has not done any work and reminded the membership that the sunset date of W5/T5 is July 1, 2011. No revisions, addendums, or new work shall be conducted using W5/T5. Staff to send out a Bulletin clarifying that W6/T6 shall be the only software approved on July 1, 2011.
  - b. CMAST Approval TG
    - i. New TG Chair appointed: Catherine Best
6. Unfinished Business
  - a. None
7. New Business
  - a. None
8. The meeting was adjourned at 4:30 p.m.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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## **U-factor Subcommittee**

Monday, July 18, 2011

*Under Technical Committee Block:\* 3:00 p.m. – 6:30 p.m.*

*Chair: Mike Thoman, Architectural Testing, Inc.*

*Vice Chair: Bipin Shah, Win-Build*

---

### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

### **2. Appoint Recording Secretary (NFRC STAFF)**

### **3. Review and Approve Agenda**

### **4. Approve Minutes from 2011 Spring Meeting in Las Vegas**

### **5. Reports**

- a. Tubular Daylighting Devices Task Group – Dave DeBlock
- b. Garage / Rolling Door Task Group – Joe Hetzel
- c. Door Task Group – Steve Jasperson
- d. Testing Laboratory Task Group – Mike Thoman
- e. Skylight Task Group – Roger LeBrun
- f. Sightline Tolerance Task Group – Joe Hayden
- g. Simulators Task Group – Lucas Turner
- h. NFRC 100 Section 5.1.2 Task Group – Steve Strawn

### **6. Unfinished Business**

### **7. New Business**

- a. NFRC 100 Product Grouping Ballot



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- b. NFRC 100 Sightline Ballot
- c. NFRC 100 Entrance Door Ballot
- d. NFRC 100 Skylight Appendix A3 Ballot  
    NFRC 100 Dynamic Glazings Ballot

**8. Adjourn**

\*\*\*\*\*

*\* 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.*

**SCOPE**

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

**Committee Chain: \* Technical Committee \* U-factor Subcommittee**  
**NFRC Staff: Dennis Anderson, Laboratory Accreditation Program Manager \* [danderson@nfr.org](mailto:danderson@nfr.org)**



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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**\*\*\* DRAFT MINUTES \*\*\***

### U-factor Subcommittee

Monday, March 28, 2011

*Under Technical Committee Block Period: 2:00 p.m. – 5:30 p.m.*

*Chair: Michael Thoman, Architectural Testing, Inc.*

*Vice Chair: TBD*

---

1. M. Thoman called the meeting to order at 2:32 p.m., antitrust reminder given and reviewed voting requirements
2. Sherri Wendt (NFRC Staff) was appointed recording secretary
3. The agenda was reviewed and chair allowed items 7.e and 7.f to be added and revised was approved.
4. The minutes from November 2010 meeting in San Francisco were approved as presented.
5. Reports
  - a. Tubular Daylighting Devices Task Group – D. DeBlock reported continues to meet regarding SHGC (angular ratings) and VT (TDD ratings).
  - b. Garage / Rolling Door Task Group – J. Hetzel reported that the TG has not met and that there are two ballots to discuss at this meeting.
  - c. Door Task Group – D. DeBlock reported that the TG has met regarding the Full CPD number requirement and that ballots will be discussed at the Ratings Committee.
  - d. Testing Laboratory Task Group – M. Thoman reported that the TG has not met since the last meeting and that there are action items from the LAP / CAP Workshop that took place on March 27th.
  - e. Skylight Task Group – R. LeBrun reported that the TG has not met and is looking for input from TG members on any issues.
  - f. Sightline Tolerance Task Group – J. Hayden deferred to item 7.h for the TG's ballot.
6. Unfinished Business
  - a. None
7. New Business
  - a. NFRC 102 Garage Door Ballot  
WestLab, J. Baker – NEG: Withdrawn
  - b. NFRC 100 Garage Door Ballot  
WestLab, J. Baker – NEG: Withdrawn  
**MOTION:** J. Hetzel / W. DuPont move to forward the NFRC 100 and NFRC 102 Garage Door Ballots to Technical Committee for approval and implementation upon publication. Motion passes via unanimous voice vote.
  - c. NFRC 100 Figures Ballot  
**MOTION:** D. De Block / J. Hayden move to forward the NFRC 100 Figures Ballot to Technical Committee for approval and implementation upon publication. Motion passes unanimous voice vote.
  - d. NFRC 100 Product Grouping Ballot  
WestLab, J. Baker – NEG:  
**MOTION:** J. Baker / S. Johnson move to find this negative persuasive and return to TG to work on and resubmit at next ballot cycle. Motion Passes via unanimous voice vote.
  - e. Discussion of Custom Skylight Ratings - M. Thoman presented that skylights were test only products at 4x4 size. From current TI-2010-06 Custom Skylights the commercial 18 sided polygon, nearly impossible and difficult that every job should go through a test in which the product isn't like the actual unit.
    - i. Skylight TG to review TI-2010 on Custom Skylights in more detail and will work on custom skylights with the support of CMA Technical TG. Added volunteers to skylight TG: M. McDonald, Y. Vinograd



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- f. Skylight ratings at different slopes: R. LeBrun presented that NFRC, ASHRAE and IECC all have different slopes for the calculation of skylights.
  - i. Is NFRC going to match the IECC?
  - ii. Optional ratings? Should it be allowed to show values of skylights at differing slopes on a non-certified label, akin to the CMA Label Certificate's last page? It would help the designer with energy calculations.
  - iii. Skylight TG to convene and answer these questions.
- g. B. Shah volunteered to be Vice Chair of TG.

\*\*\*\*\*

**Adjourned at 3:21p.m. to convene the SHG SC so the NFRC 200 Sightline Ballot can be resolved before addressing the NFRC 100 Sightline Ballot.**

**Chair re-adjourned the meeting at 4:00 p.m.**

\*\*\*\*\*

- h. NFRC 100 Sightline Ballot
  - Hurricane Test Laboratory, L. Turner - NEG:
    - MOTION:** L. Turner / M. McDonald move to strike the sentence, "Differing sightlines should remain as separate individual products in the product line," and find this negative persuasive and substantive and return to TG. Motion Passes via unanimous voice vote.
    - NCTL-NW, M. McDonald – NEG: Handled by previous action.
    - Newpro Manufacturing, D. Curran – NEG:
      - MOTION:** J. Hayden / B. Shah Move to find this negative non-persuasive because grouping is optional. Motion passes via unanimous voice vote.
    - McDonald, Schultz, Turner were volunteered to join the Sightline Tolerance TG to help work on a revised ballot for July 2011 Summer meeting.

- 8. The meeting was adjourned at 4:05 p.m.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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## **Solar Heat Gain Subcommittee**

Tuesday, July 19, 2011

*Under Technical Committee Block:\* 10:00 a.m. – 12:30 p.m.*

Chair: *Bipin Shah, Win-Build*

Vice Chair: *Brad Schultz, Associated Laboratories, Inc.*

---

### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

### **2. Appoint Recording Secretary (NFRC STAFF)**

### **3. Review and Approve Agenda**

### **4. Approve Minutes from 2011 Spring Meeting in Las Vegas**

### **5. Reports**

- a. Garage Door SHGC Task Group – Joe Hetzel
- b. TDD Task Group – Dave De Block
- c. NFRC 200 Review Task Group – Brad Schultz
- d. Sightline Tolerance TG – J Hayden
- e. Translucent Panel VT TG – Yossi Vinograd

### **6. Unfinished Business**

- a. None

### **7. New Business**

- a. NFRC 200 Sections 4.5 & 4.7 Ballot
- b. NFRC 200 Sightline Ballot
- c. Presentation of proposed NFRC 202 VT testing procedure



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**8. Adjourn**

\*\*\*\*\*

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**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.

Committee Chain: \* Technical Committee \* Solar Heat Gain Subcommittee  
NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager \* [danderson@nrc.org](mailto:danderson@nrc.org)



## Meeting Notes:

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**\*\*\* DRAFT MINUTES \*\*\***

**Solar Heat Gain Subcommittee**  
**Monday, March 28, 2011**

*Under Technical Committee Block Period: 2:00 p.m. – 5:30 p.m.*  
**Chair: Bipin Shah, WinBuild, Inc.**  
**Vice Chair: Brad Schultz, Associated Laboratories, Inc.**

---

1. Chair called the meeting to order at 3:25 p.m. - antitrust reminder given and reviewed voting requirements.
2. S. Wendt (Staff) appointed recording secretary.
3. The agenda was reviewed and approved as presented.
4. Minutes from November 2010 San Francisco meeting were approved as presented.
5. Reports
  - a. Garage Door SHGC Task Group – J. Hetzel reported that the TG has not conducted any work. Approval of changes to NFRC 200 and manufacturers are in process of testing 201 as they chose to and 200 for calculations. Any result would be of feed-back received.
  - b. TDD SHGC Task Group has been disbanded. A WG may be formed to report to the TDD TG.
  - c. SHGC Task Group – has not met in quite awhile. The TG was renamed to NFRC 200 Revision TG for clarification on the direction of this.
  - d. Sightline Tolerance TG – J. Hayden deferred to ballot in 7.c.
6. Unfinished Business
  - a. None
7. New Business
  - a. NFRC 201 Reporting Ballot  
**MOTION:** J. Hayden / D. De Block move forward the NFRC 201 ballot to Technical SC for approval and implement upon publication. Motion passes via unanimous voice vote.
  - b. NFRC 200 Sections 4.5 & 4.7 Ballot  
NCTL-NW, M. McDonald – NEG  
**MOTION:** M. McDonald / W. DuPont move to find the negative as persuasive and substantive to go back to NFRC 200 Review TG for inclusion in July 2011 Summer Virtual Meeting. Motion passes via unanimous voice vote.  
Staff to note that “4.7.E.vi” should be numbered to “iv”
  - c. NFRC 200 Sightline Ballot  
ALI, B. Schultz – NEG:  
**MOTION:** J. Hayden / M. McDonald Motion to move find the negative persuasive and substantive. Motion passes 25-9.  
L. Turner volunteers to join the TG.  
Hurricane Test Laboratory, L. Turner – NEG: handled by previous action.  
NCTL-NW, M. McDonald – NEG: handled by previous action  
Newpro Manufacturing, D. Curran – NEG: J. Hayden / C. Curcija find the negative non-persuasive because grouping is optional. Motion passes via unanimous voice vote.
  - d. New TG: Translucent Panels VT: Chair to be Yossi Vinograd of CPI Daylighting.
8. The meeting was adjourned at 3:57 p.m.



## Meeting Notes:

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**CMA Technical Subcommittee**

Tuesday, July 19, 2011

*Under Technical Committee Block: \* 10:00 a.m. – 12:30 p.m.*

Co-Chairs: *Gary Curtis, Consultant*  
*Sneh Kumar, TRACO*

**1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

**2. Appoint Recording Secretary (NFRC STAFF)**

**3. Review and Approve Agenda**

**4. Approve Minutes from 2011 Spring Meeting in Las Vegas**

**5. Reports**

- a. CMA Technical Task Group — Charlie Curcija
- b. CMA Complex Product Rating Task Group — Sneh Kumar

**6. Unfinished Business**

- a. NFRC 100/200 Spandrel Considerations for ballot

**7. New Business**

**8. Adjourn**

\*\*\*\*\*

*\* 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.*

**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.

Committee Chain: \* Technical Committee \* CMA Technical Subcommittee  
 NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager \* [danderson@nfr.org](mailto:danderson@nfr.org)



## Meeting Notes:

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**\*\*\* DRAFT MINUTES \*\*\***

**CMA Subcommittee - Technical**

Monday, March 28, 2011

*Under Technical Committee Block Period: 2:00 p.m. – 5:30 p.m.*

Chair: *Sneh Kumar, TRACO*

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

---

1. Chair called the meeting to order on Monday, March 28<sup>th</sup> at 4:31 p.m. - antitrust reminder given and reviewed voting requirements
2. S. Wendt (Staff) appointed recording secretary
3. Minutes from November 2010 San Francisco meeting were approved as presented.
4. The agenda was reviewed and approved as presented
5. Reports
  - a. CMA Technical Task Group – has not met and had nothing to report.
  - b. CMA Complex Product Rating Task Group – has not met and had nothing to report
6. New Business
  - a. New Chair was appointed for CMA Technical Task Group: Catherine Best
  - b. B. Schultz requested and it was approved for the CMA Technical TG to “Redefine Endpoints for CMA Calculations.”
7. The meeting was adjourned at 4:35 p.m.



## Meeting Notes:

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## **Attachments Subcommittee**

Tuesday, July 19, 2011

*Under Technical Committee Block:\* 10:00 a.m. – 12:30 p.m.*

Chair: *Paris Waddill, Nysan Shading Systems*

Vice-Chair: *Dave De Block, ODL*

---

### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

### **2. Appoint Recording Secretary (NFRC STAFF)**

### **3. Approve Agenda**

### **4. Approve Minutes from 2011 Spring Meeting in Las Vegas**

### **5. Reports**

- a. Dynamic Attachments for Swinging Door TG – Dave DeBlock
- b. Exterior / Interior Attachment TG – Thom Zaremba / Mike Cienian
- c. Storm Windows TG – Thom Zaremba
- d. Awnings TG – John Gant
- e. Applied Films TG – Darrell Smith
- f. Attachments PCP TG – Teresa Williamson
- g. Attachments Labeling TG – Tom Morrissey
- h. Attachments Optical Properties TG – Tom Morrissey
- i. Storm Door TG – Chris Nolt / Todd Stratmoen

### **6. Unfinished Business**

### **7. New Business**



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a. Long-Term Objectives

**8. Adjourn**

---

*\* 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.*

**SCOPE**

The Attachments Subcommittee is responsible for the development of procedures and ratings categories of attachment products in compliance with the NFRC 100A and 200A documents.

**Committee Chain: \* Technical Committee \* Attachments Subcommittee**  
**NFRC Staff Liaison: Dennis Anderson, Laboratory Accreditation Program Manager \* [danderson@nfr.org](mailto:danderson@nfr.org)**



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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**\*\*\* DRAFT MINUTES \*\*\***

**Attachments Subcommittee**

Tuesday, March 29, 2011

*Block Period: Part Two: 8:00 a.m. – 11:00 a.m.*

*Chair: Mike Cienian, Hunter Douglas*

*Vice Chair: Dave De Block, ODL*

- 
1. **Call to Order.** The Acting Chair (Tom Morrissey) called the meeting to order 8:20 a.m., and reminded the subcommittee of the NFRC antitrust rules, meeting guidelines and voting requirements.
  2. **Appointment of Recording Secretary.** Ray McGowan (NFRC staff) was appointed the recording secretary.
  3. **Approval of Minutes.** The minutes were reviewed, and approved as presented.
  4. **Approval of Agenda.** The meeting agenda was approved as revised; items e) and f) were added under New Business.
  5. **Task Group & Work Group Reports**
    - a. **Applied Films Task Group.** Chair Darrell Smith reported staff is preparing the database for acceptance of films. The PCP is being reviewed also for clarification.
    - b. **Attachments Optical Properties Task Group.** Chair Tom Morrissey reported the task group plans on preparing the technical document for the Summer ballot.
    - c. **Awnings Task Group.** Chair John Gant reported the task group is working on completing a research RFP.
    - d. **Base Case Reference Window Work Group.** Chair Nils Peterman reported no activity by the work group.
    - e. **Dynamic Attachments for Swinging Doors Task Group.** Chair Dave De Block reported no activity by the task group.
    - f. **Exterior / Interior Attachments Task Group.** Tom Morrissey reported on behalf of task group Chair Mike Cienian, and stated the task group is concerned about the icon-based 'star' rating system. The task group has not formerly addressed the matter yet, but plans to do so in the near future.
    - g. **Storm Window Task Group.** No activity by the task group.
  6. **Unfinished Business**
    - a. Acting Chair Morrissey stated the subcommittee gives thanks to the staff for the hard work and support in getting 100A and 200A published.
  7. **New Business**
    - a. **Formation of new Storm Door Task Group.** Todd Stratmoen and Chris Nolt will co-chair this new task group, and have developed a draft scope statement.
    - b. **Organizational Structure Review, Attachments Subcommittee.** Acting Chair Morrissey presented *PowerPoint* slides depicting the new organizational structure.
    - c. **Appointment of Attachment Subcommittee Chair.** With the appointment of Mike Cienian as Chair of the new NFRC 712 (Attachments) Certification Subcommittee [reporting to the Ratings Committee], a vacancy at the chairmanship results. This vacancy shall be filled by Paris Waddill.
    - d. **New Scope.** The new Attachment Subcommittee scope will be presented to the board for approval.
    - e. **Label format.** Teresa Williamson discussed the guidance provided earlier in the year by the NFRC Board (a "Stars" rating meets the direction previously approved by the Board). NFRC CEO Jim Benney provided additional clarification regarding the Board's direction. It was agreed discussion on this matter should be ended, and be resumed at the more appropriate venue — the NFRC 712 (Attachment) Certification Subcommittee, which shall convene later in the meeting.



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- f. **LBNL Update.** Jacob Jonsson provided a presentation entitled *Status of Shade Screen Characterization at LBNL*, and updated the subcommittee on the progress made in this area.
- 8. Adjourned at 9:06 a.m.**



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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## **Technical Committee**

Monday, July 18, 2011

*Block Period: 2:30 p.m. – 6:00 p.m.*

Tuesday, July 19, 2011

*Block Period: 10:00 a.m. – 1:30 p.m.*

*Chair: Jeff Baker, WESTLab*

*Vice Chair: Tina Jenkins, Simonton Windows*

---

### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Question will be routed to proper staff or volunteer.
- d. Review committee voting requirements: one vote per Member Company listed on the roster
  - i. Members will use a session ID (NFRC2011TECHN) reserved for THIS COMMITTEE ONLY (password information has been sent to Committee MEMBERS via email). They will login via RWpoll.com to place their vote.
- e. Any member wanting to add name to committee should email [meetings@nfr.org](mailto:meetings@nfr.org). Eligible names will be added before the NEXT meeting.

### **2. Appoint Recording Secretary (NFRC STAFF)**

### **3. Roll call / Establish quorum**

### **4. Approve Minutes from March 2011 meeting**

### **5. Review and approve agenda**

### **6. Reports**

- a. Software Subcommittee (B. Crooks, J. Krahn)
- b. Ventilation Subcommittee (R. Garries, TBD)
- c. Daylighting Subcommittee (R. LeBrun, TBD)
- d. Annual Energy Performance Subcommittee (T. Culp, J. Larsen)
- e. Condensation Resistance Subcommittee (K. Vilhauer, S. Harp)
- f. Air Leakage (C. Nolt / T. Rogers)



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- g. U-factor Subcommittee (M. Thoman, B. Shah)
- h. Solar Heat Gain Subcommittee (B. Shah / B. Schultz)
- i. Component Modeling Approach Subcommittee (S. Kumar / G. Curtis)
- j. Attachment Subcommittee (P. Waddill, D. DeBlock)

**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, Program Director \* [shanlon@nfr.org](mailto:shanlon@nfr.org)*



## Meeting Notes:

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**\*\*\* DRAFT MINUTES \*\*\***

**Technical Committee**

Monday, March 28, 2011

*Block Period: 2:00 p.m. – 5:30 p.m.*

Tuesday, March 29, 2010

*Block Period: 8:00 a.m. – 11:00 a.m.*

Chair: *Jeff Baker, WESTLab*

Vice Chair: *Tina Jenkins, Simonton Windows*

- 
1. J. Baker (Chair) called the meeting to order - antitrust reminder given and reviewed voting requirements.
  2. Roll call / Establish quorum. Quorum established.
  3. Dennis Anderson (Staff) appointed recording secretary.
  4. Agenda reviewed and approved as presented.
  5. Approved Minutes from Fall 2010 Meeting in San Francisco.
  6. Reports
    - a. Software SC – B. Crooks reported the following:
      - i. Announced deadline of W5/T5 of July 1, 2011. Simulation Lab Workshop asked for clarification to be sent via a bulletin by Staff on the sunset of W5/T5 and whether it can be used for revised work.
      - ii. CMAST Approval TG found new chair, Catherine Best.
    - b. Attachment SC – T. Morrissey reported the following:
      - i. Paris Waddill agreed to be the chair for Attachment SC.
      - ii. Announced re-formation of the Storm Door TG to be chaired by Chris Nolt.

**MOTION:** T. Morrissey / B. Shah move to forward to approve the revised Attachment SC Scope. Motion passes by UVV.  
Attachment Technical Subcommittee is responsible for the development of procedures and rating categories of attachment products in compliance with the NFRC 100A and 200A documents.
    - c. Annual Energy Performance SC – Nothing to report.
    - d. Condensation Resistance SC– Nothing to report.
    - e. Air Leakage SC – Nothing to report.
    - f. U-factor SC – M. Thoman reported the following:
      - i. Three ballots were approved at SC and two were sent back to TG for review.
      - ii. Bipin Shah was assigned new Vice-Chair of U-factor SC.

**MOTION:** M. Thoman / D. De Block moved to forward NFRC 100 Garage Door, NFRC 102 Garage Door, NFRC 100 Figures ballots to the Board for approval and implementation upon publication. Motion passes by UVV.
    - g. Solar Heat Gain SC – B. Shah reported the following:
      - i. One ballot was approved as SC and two ballots were sent back to TG for review.
      - ii. A new TG was formed for VT of Translucent Panels to be chaired by Yossi Vinograd.

**MOTION:** B. Shah / D. De Block moved to forward the NFRC 201 Reporting ballot to the Board for approval and implementation upon publication. Motion passes by UVV.
    - h. Component Modeling Approach SC – G. Curtis reported the following:
      - i. Catherine Best volunteered as new chair of CMA Technical TG.
  7. New Business
    - a. None
  8. Adjourn at 9:41 am



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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## Technical Committee Roster\*

As of 6/28/2011

### Company Name

Air-Ins	Madico
Alliance to Save Energy	Manko Window Systems
American Architectural Manufacturers Assoc	Marvin Windows & Doors
AMSCO Windows	Mecho Shade Corporation
Andersen Corporation	Milgard Manufacturing, Inc.
Architectural Testing, Inc.	National Certified Testing Laboratories - NW
Associated Laboratories, Inc.	Natural Light Energy Systems
Associated Materials, Inc.	Nysan Shading Systems, LP
Association of Millwork Distributors	ODL Incorporated
Atrium Companies	Pella Corporation
Bekeart Speciality Films, LLC	Peter Lyons & Associates
Birch Point Consulting LLC	Pacific Gas and Electric
Brickfield, Burchette, Ritts, & Stone, P.C.	Phifer Incorporated
California Energy Commission	Pilkington North America, Inc.
Cardinal Glass Industries, Inc.	Roetzel & Andress
Center for Sustainable Building Research	Royal Mouldings
Champion Window	Simonton Windows
Chelsea Building Products	Soladigm
CPI Daylighting	Solatube
Door & Access Systems Manufacturers Assoc Intl	Solutia, Inc.
EdgeTech	Southwall Technologies
Enermodal Engineering Limited	Stork Twin City Testing
Entech Solar, Inc.	Sunergy Consulting
Fenestration Testing Lab	SunPine Consulting
Gary Curtis - Consultant	Sunrise Windows
Glass Association of North America	Switch Materials
Glen Raven, Inc.	Technoform
Group 14 Engineering	Royal Window and Door Profiles
Guardian Industries	TruSeal Technologies, Inc.
HanitaTek Window Films	Twichell Corporation
Hunter Douglas, Inc.	VELUX-America Inc.
Hurricane Test Laboratories	WESTLab
International Window Film Association	William Rygg, Consultant
J & A Windows Inc.	WinBuild, Inc.
Jeld-Wen, Inc.	Window and Door Manufacturer's Association
Keystone Certifications, Inc.	Window Covering Manufacturers Association
Kinro	Wiss, Janey, Elstner Assoc. Inc.
Lawrence Berkeley National Laboratory	

*\*Committee Membership requires members to sign up onsite at meeting (or by [sending an email](#) while attending meeting) for inclusion on roster/voting rights. Please note, if two consecutive meetings are missed without a voting representative being at the meeting (checked via meeting registration) the 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 after July 14, 2011: [meetings@nfdc.org](mailto:meetings@nfdc.org)***



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



**NFRC 700 Certification Subcommittee**

Tuesday, July 19, 2011

*Block Period: 1:30 p.m. – 6:30 p.m. EDT*

Chair: *Joe Jonely, AMSCO*

Vice Chair: *Tina Jenkins, Simonton Windows*

**1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.
  - ii. \*\*\* Ratings Block SAMPLE VOTE NOW \*\*\*
    - 1. Question: Is it sunny outside where you are?

**2. Appoint Recording Secretary (NFRC STAFF )**

**3. Approve Minutes from March 2011 meeting in Las Vegas**

**4. Review and approve agenda**

**5. Reports**

- a. NFRC 700 (PCP) Review TG – Tina Jenkins
- b. NFRC 700 Labeling TG – John McFee

**6. Unfinished Business**

**7. New Business**

- a. NFRC 700 – Full CPD Number Ballot

**8. Adjourn**

\*\*\*\*\*

**SCOPE**

*To create and maintain Product Certification Program (PCP) document and procedures.*

Committee Chain: \* Ratings Committee \* NFRC 700 Certification Subcommittee  
NFRC Staff Liaison: *Sherri Wendt, CAP Manager* \* [swendt@nfr.org](mailto:swendt@nfr.org)



## Meeting Notes:

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NFRC 2011 Virtual Committee Week – Summer 2011  
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**\*\*\* DRAFT MINUTES \*\*\***  
**NFRC 700 Subcommittee**

Monday, March 28, 2011  
*Under Ratings Committee Block: 12:30 p.m. – 5:30 p.m.*  
Chair: *Joe Jonely, AMSCO*  
Vice Chair: *Tina Jenkins, Simonton Windows*

---

1. J. Jonely called the meeting to order at 12:33 p.m. - antitrust reminder given and reviewed voting requirements.
2. Scott Hanlon (NFRC STAFF) was appointed recording secretary.
3. Minutes from November 2010 (San Francisco) were approved as presented.
4. The agenda was reviewed and approved as modified.
5. Reports
  - a. NFRC 700 PCP Review Task Group – J. Jonely reported that there were ballots to discuss at this meeting.
  - b. NFRC 700 Label Task Group – J. Jonely there was nothing to report as all business will be handled in the ballots.
6. Unfinished Business
  - a. Scope modification
    - i. Due to the restructuring of the Ratings committee the NFRC 700 SC's scope was modified to meet those changes. J. Jonely will forward this to the Ratings Committee.
7. New Business
  - a. NFRC 700 – Appendix A Ballot  
AMD: J. Ferris (General) – NEG  
**MOTION:** R. LeBrun / B. Shah to find this negative persuasive and editorial with modifications to Section 9.5 referencing NFRC 707. Motion passes by UVV.  
**MOTION:** B. Shah / D. De Block to move ballot forward to Ratings Committee for implementation upon publication. Motion passes by UVV.
  - b. NFRC 700 – Bar Code Ballot  
CEC: N. Pena (General) – NEG  
Withdrawn  
Kolbe & Kolbe: S. Schreiber (General) – NEG  
**MOTION:** S. Strawn / R. LeBrun move to find non-germane based on previous action. Motion passes by UVV.  
Velux: R. LeBrun (B.6.F) – APC  
No action necessary  
Architectural Testing: M. Thoman (B.6.F) – APC  
**MOTION:** M. Thoman / D. De Block move to find recommended language as persuasive and editorial. Motion passes by UVV.  
**MOTION:** B. Shah / S. Strawn to move the NFRC 700 Barcode ballot forward to Ratings Committee for implementation upon publication. Motion passes by UVV.
  - c. NFRC 700 – Door Add-On Matrix Label Ballot  
JELD-Wen: S. Strawn (Figure B2-B) – NEG  
Withdrawn



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NAMI: S. Durand (6.3.D.i) – NEG

Withdrawn

ODL: D. DeBlock (General) – NEG

Withdrawn

Pella: J. Hayden (Figure B2-B) – NEG

**MOTION:** J. Hayden / S. Strawn move to find this negative persuasive and substantive, clarification that only 6.3.D.i and the Air Leakage placeholder would be kept from this ballot. Motion passes 22-9-12.

Architectural Testing: M. Thoman (General) – NEG

Withdrawn – handle by previous action

Velux: R. LeBrun (Labels B-2A, B-2B, B-10B) – NEG

Withdrawn – handle by previous action

AMD: J. Ferris (6.3.D.i) – NEG

Withdrawn

d. NFRC 700 – Full CPD Ballot

Paragon Door: D. Burks (General) – NEG

Withdrawn

ODL: D. DeBlock (General) – NEG

**MOTION:** D. De Block / J. Baker to find negative persuasive and substantive send it back to TG to develop a system, clarification that this motion does not allow the Full CPD Number on the Door Matrix Label. Motion fails 8 – 18 - 18.

Negative considered non-germane to the ballot.

Kolbe & Kolbe: S. Schreiber (General) – NEG

Negative considered non-germane to the ballot.

CEC: N. Pena (General) – NEG

**MOTION:** N. Pena / R. LeBrun to find the negative persuasive and substantive and to require the previous mandatory description language not become optional language. Motion passes by voice vote.

Royal W & D Profiles: M. Pepin (General) – NEG

Withdrawn – handle by previous action

HTL: L. Turner (General) – NEG

Withdrawn – handle by previous action

WinDoor, Inc.: D. McDougall (General) – NEG

Withdrawn – handle by previous action

Velux: R. LeBrun (General) – NEG

Withdrawn – handle by previous action

Marvin: J. Krahn (B.3 Note) – NEG

Withdrawn

JELD-Wen: S. Strawn (B.3 Note) – APC

Withdrawn - will be handled at Ratings Committee

Pella: J. Hayden (B.3 Note) – NEG

Withdrawn – handle by previous action

Solutia: L. Winkler (Figure B-4A, B-4B) – APC

Withdrawn



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AMD: J. Ferris (B.3) – NEG

Withdrawn

**MOTION:** J. McFee / J. Hayden to move forward the recommendation to Ratings Committee to request the Board to move to delay the Full CPD implementation date to July 1, 2012. Motion passes by UVV.

e. NFRC 700 – TDD Matrix Label Ballot

WDMA: J. McFee (6.3.D.ii) – NEG

Withdrawn

NAMI: S. Durand (6.3.D.i) – APC

No action necessary

Velux: R. LeBrun (Labels B-2A, B-2B, B-10B) – NEG

No action necessary

**MOTION:** R. LeBrun / D. De Block to move this ballot forward to Ratings Committee for implementation upon publication. Motion passes by UVV.

f. LBNL: Barcode

i. C. Kohler will bring forward barcode information to the NFRC 700 Label TG.

8. The meeting was adjourned at 2:36 p.m.



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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**NFRC 705 CMA Certification Subcommittee**

Tuesday, July 19, 2011  
*Block Period: 1:30 p.m. – 6:30 p.m. EDT*  
 Chair: *Gary Curtis, Consultant*  
 Vice Chair: *Sneh Kumar, TRACO*

**1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

**2. Appoint Recording Secretary (NFRC STAFF )**

**3. Approve Minutes from March 2011 meeting in Las Vegas**

**4. Review and approve agenda**

**5. Reports**

- a. NFRC 705 CMA Labeling Task Group – Charlie Curcija

**6. Unfinished Business**

- a. None

**7. New Business**

- a. NFRC 705, Label Certificate Ballot

**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 \* NFRC 705 CMA Certification Subcommittee  
 NFRC Staff Liaison: Sherri Wendt, CAP Manager \* [swendt@nfr.org](mailto:swendt@nfr.org)



## Meeting Notes:

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NFRC 2011 Virtual Committee Week – Summer 2011  
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**\*\*\* DRAFT MINUTES \*\*\***

**NFRC 705 (CMA) Ratings Subcommittee**

Monday, March 28, 2011

*Under Ratings Committee Block: 12:30 p.m. – 5:30 p.m.*

Co Chair: *Sneh Kumar, TRACO*

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

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1. G. Curtis called the meeting on Monday, March 28 at 3:40 p.m. - antitrust reminder given and reviewed voting requirements.
2. Scott Hanlon (NFRC Staff) appointed recording secretary.
3. The minutes from November 2010, San Francisco meeting were approved as presented.
4. The agenda was reviewed and approved as presented.
5. Reports
  - a. CMA Labeling TG – C. Curcija reported that there has been no activity at the task group. It was noted that discussion at the NFRC 700 Label TG may forward information about a 2-D barcode in conjunction with C. Kohler of LBNL.
6. New Business
  - a. No new business
7. Adjourned at 2:39 p.m.



## Meeting Notes:

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## **NFRC 712 (Attachments) Certification Subcommittee**

Tuesday, July 19, 2011

*Block Period: 1:30 p.m. – 6:30 p.m. EDT*

Chair: *Michael Cienian, Hunter Douglas*

Vice Chair: TBD

---

### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on “Enter a Question,” type question/comment and hit send. Questions will be routed to proper staff or volunteer.
- d. Review subcommittee voting requirements: one vote per Member Company.
  - i. Members will use a session ID (NFRC2011SUBCOM) reserved for MEMBERSHIP ONLY (password information has been sent to MEMBERS via email). They will login via RWpoll.com to place their vote.

### **2. Appoint Recording Secretary (NFRC STAFF )**

### **3. Approve Minutes from March 2011 meeting in Las Vegas**

### **4. Review and approve agenda**

### **5. Reports**

- a. NFRC 712 Attachments PCP Task Group – Chuck Anderson
- b. NFRC 712 Attachments Labeling Task Group – Tom Morrissey

### **6. Unfinished Business**

- a. None

### **7. New Business**

- a. NFRC 712, Section 1-2 - Ballot
- b. NFRC 712, Section 3 - Ballot
- c. NFRC 712, Section 4 - Ballot
- d. NFRC 712, Section 5 - Ballot
- e. NFRC 712, Section 6 - Ballot
- f. NFRC 712, Section 7 - Ballot



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- g. NFRC 712, Section 8 - Ballot
- h. NFRC 712, Section 9 - Ballot
- i. NFRC 712, Appendix C - Ballot
- j. NFRC 712, Appendix D - Ballot
- k. NFRC 712, Appendix E - Ballot
- l. NFRC 712, Appendix F - Ballot

**8. Adjourn**

\*\*\*\*\*

**SCOPE**

*NFRC 712 Certification Subcommittee is responsible for developing the labeling and certification processes and content for Attachment products, including a website and database.*

Committee Chain: \* Ratings Committee \* NFRC 712 (Attachments) Certification Subcommittee  
NFRC Staff Liaison: Sherri Wendt, CAP Manager \* [swendt@nfr.org](mailto:swendt@nfr.org)



## Meeting Notes:

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**\*\*\* DRAFT MINUTES \*\*\***

**NFRC 712 (Attachments) Certification Subcommittee**

Tuesday, March 29, 2011

*Under Ratings Committee Block Period: 12:30 p.m. – 5:30 p.m.*

*Chair: Mike Cienian, Hunter Douglas*

*Vice Chair: TBD*

- 
1. **Call to Order.** The Acting Chair (Tom Morrissey) called the meeting to order 2:55 p.m., and reminded the subcommittee of the NFRC antitrust rules, meeting guidelines and voting requirements.
  2. **Appointment of Recording Secretary.** Ray McGowan (NFRC staff) was appointed the recording secretary.
  3. **Approval of Minutes.** Not applicable; as this is the first meeting of this subcommittee, no minutes of prior meetings exist.
  4. **Approval of Agenda.** The meeting agenda was approved as presented.
  5. **Task Group Reports**
    - NFRC 712 (Attachments) Labeling Task Group.** Chair Tom Morrissey reported the task group has not met since the Fall 2010 Membership meeting.
    - a. **NFRC 712 (Attachments) PCP Task Group.** Chair Chuck Anderson reported the completion of the first draft of the *NFRC 712 — Fenestration Attachment Product Certification Program* document, which was balloted for the Spring Committee Week meeting.
  6. **New Business**
    - a. **Appointment of Chair.** Mike Cienian shall become the chair of the new NFRC 712 (Attachments) Certification Subcommittee. This subcommittee reports to the Ratings Committee.
    - b. **Subcommittee Scope.** The new NFRC 712 (Attachments) Certification Subcommittee *scope* was reviewed and shall be presented for approval at the March 30 NFRC Board of Directors meeting.

**Ballot Review. Review of Current Ballot and Negatives: *NFRC 712 — Fenestration Attachment Product Certification Program (First Draft)***

      - i. Glen Raven (J. Gant) moved and IWFA (D. Smith) seconded to find the Glen Raven Approve with Comment (“APC”) (“In section 6.5.F, as some products are mounted exterior to glazing, strike the words “from the interior.”) persuasive and editorial. Motion passed 29-12-7.
      - ii. Pella (J. Hayden) moved and WinBuild (B. Shah) seconded to find the Hunter Douglas APC (first part: “4.3.2.3 Remove item D - redundant since anything that cannot be simulated is already required to be physically tested.”) persuasive and editorial. Motion passed 40-0-1.
      - iii. WinBuild (B. Shah) moved and IWFA (D. Smith) seconded to find the Hunter Douglas (second part: “4.3.2.4 200 should be 200A; 4.3.2.6.B 100 should be 100A”) APC persuasive and editorial. Motion passed by voice vote.
      - iv. NCTL (M. McDonald) moved and WinBuild (B. Shah) seconded to find the Hunter Douglas (third part: “4.3.2.6.D should be removed”) APC persuasive and substantive. Motion passed 19-8-12.
      - v. WinBuild (B. Shah) moved and Solutia (L. Winckler) seconded to find the Hunter Douglas (fourth part: “Anywhere that 102 is stated alone should be changed to 100A/102 since 102 does not specify the mounting instructions for attachments.”) persuasive and substantive. Passed by voice vote (*note to TG: Storm windows and storm doors need to be added to the scope of this document, and the document otherwise revised to include such products.*).
      - vi. Joe Hayden reviewed each portion of the 22-part Pella Negative:
        1. Edit 1a suggested is editorial





## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



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## **Ratings Committee**

July 19, 2011

*Block Period: 1:30 p.m. – 6:30 p.m.*

*Chair: Steve Johnson, Andersen Corporation*

*Vice Chair: John McFee, Window & Door Manufacturer's Association*

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### **1. Call to Order**

- a. Welcome to All Attendees
- b. Antitrust reminder
- c. NFRC Meeting Guidelines, plus virtual specifics as follows
  - i. All attendees will be muted until formally recognized to speak via the chair and subsequently un-muted by the staff liaison.
  - ii. To speak on a topic, please raise the virtual hand to be recognized in turn.
  - iii. If you have any technical difficulties, please click on "Enter a Question," type question/comment and hit send. Question will be routed to proper staff or volunteer.
- d. Review committee voting requirements: one vote per Member Company listed on the roster
  - i. Members will use a session ID (NFRC2011RATING) reserved for THIS COMMITTEE ONLY (password information has been sent to Committee MEMBERS via email). They will login via RWpoll.com to place their vote.
  - ii. Any member wanting to add name to committee should email meetings@nfr.org. Eligible names will be added before the NEXT meeting.

### **2. Appoint Recording Secretary (NFRC STAFF)**

### **3. Roll call / Establish quorum**

### **4. Approve Minutes from March 2011 meeting**

### **5. Review and approve agenda**

### **6. Reports**

- a. AEP Ratings TG – (T. Culp)
- b. NFRC 700 SC (PCP) – (J. Jonely / T. Jenkins)
- c. NFRC 705 SC (CMA) – (G. Curtis / S. Kumar)
- d. NFRC 712 SC (Attachment) – (M. Cienian / D. De Block)

### **7. New Business**

- a. None

### **8. Adjourn**



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**SCOPE**

The NFRC Ratings 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.

*NFRC Staff Liaison: Scott Hanlon, Program Director \* [shanlon@nfr.org](mailto:shanlon@nfr.org)*



## Meeting Notes:

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NFRC 2011 Virtual Committee Week – Summer 2011  
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**\*\*\*DRAFT MINUTES\*\*\***

**Ratings Committee**

Tuesday, March 29, 2010

*Block Period: 12:30 p.m. – 5:30 p.m.*

*Chair: Steve Johnson, Andersen Corporation*

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

- 
1. Steve Johnson called the meeting to order at 5:18 p.m. - antitrust reminder given and reviewed voting requirements.
  2. S. Wendt (NFRC Staff) was appointed recording secretary.
  3. Roll call was taken and a quorum was established.
  4. Minutes from November 2010, San Francisco meeting were approved as modified.
  5. The agenda was reviewed and approved as modified.
  6. Reports
    - a. AEP Ratings TG
      - i. T. Culp – nothing to report.
    - b. NFRC 700 SC (PCP)
      - i. J. Jonely reported the following:
        1. NFRC 700 SC scope was modified.
        2. Four NFRC ballots were discussed and approved. The Full CPD number and Door Add-On ballots failed and were sent back to TG.
        3. C. Kohler will bring forward barcode information to the NFRC 700 Label TG.

**MOTION:** J. Jonely / D. De Block move the revised NFRC 700 SC scope to BOD. Motion passes: UVV.

To create and maintain Product Certification Program (PCP) document and procedures.

**MOTION:** J. Jonely / J. McFee move the NFRC 700 Appendix A Ballot forward to BOD for implementation upon publication. Motion passes: UVV.

**MOTION:** J. Jonely / N. Pena move the NFRC 700 Barcode Ballot forward to BOD for implementation upon publication. Motion passes: UVV

**MOTION:** J. Jonely / D. De Block move the NFRC 700 TDD Matrix Label Ballot forward to BOD for implementation upon publication. Motion passes: UVV.

**MOTION:** J. Jonely / J. Hayden move forward the recommendation to Ratings to request the Board to delay the Full CPD Number implementation date to a recommended July 1, 2012. Motion passes UVV.
    - c. NFRC 705 SC (CMA-PCP)
      - i. S. Johnson reported that there was no activity.
    - d. NFRC 712 SC (Attachment)
      - i. T. Morrissey reported that the NFRC 712 PCP ballot went back to TG for review.

**MOTION:** T. Morrissey / P Waddill move to approve the scope statement for NFRC 712 Certification SC. Motion passes UVV.

The NFRC 712 Certification Subcommittee is responsible for the developing the labeling and certification processes and content for Attachment products, including a website and database.

It was explained that the website and database part of the scope was to allow the SC to have inclusion on the content to be included on each of these areas.
  7. New Business



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- a. Rating's Subcommittee Restructuring – Approved by BOD
    - i. S. Hanlon demonstrated the new SC and TG hierarchy that the BOD approved in November.
  - b. Full CPD Number on temporary label
    - i. S. Hanlon reported on the internal work with staff and TG's on non-expansion of options within the CPD.
8. The meeting was adjourned at 5:40 p.m.



## Meeting Notes:

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**Ratings Committee Roster\***

As of 6/28/2011

**Company Name**

Air-Ins	Lawrence Berkeley National Laboratory
Alliance to Save Energy	Madico
American Architectural Manufacturers Assoc	Manko Window Systems
AMSCO Windows	Marvin Windows & Doors
Andersen Corporation	Mecho Shade Corporation
Architectural Testing, Inc.	Milgard, Inc.
Associated Laboratories, Inc.	National Certified Testing Laboratories - NW
Associated Materials, Inc.	Natural Light Energy Systems
Association of Millwork Distributors	Nysan Shading Systems, LP
Atrium Companies	ODL Incorporated
Bekaert Specialty Films, LLC	Pella Corporation
Birch Point Consulting LLC	Peter Lyons & Associates
Brickfield, Burchette, Ritts, and Stone	Phifer Incorporated
California Energy Commission	Pilkington North America, Inc.
Cardinal Glass	Professional Awnings Manufacturers Association
Center for Sustainable Building Research	ProVia Door, Inc.
Champion Window	Roetzel & Address
CPI Daylighting	Royal Mouldings
Door & Access Systems Manufacturers Assoc Intl	Royal Window & Door Profiles
EdgeTech	Simonton Windows
Entech Solar, Inc.	Solatube
Gary Curtis - Consultant	Solutia, Inc.
Glen Raven	Stork Twin City Testing
Group 14 Engineering	Sunergy Consulting
Guardian Industries Corp.	Truseal Technologies, Inc.
HanitaTek Window Films	Twitchell Corporation
Hunter Douglas	Velux America, Inc.
Hurricane Testing Laboratories	WESTLab
Insulating Glass Manufacturers Alliance	William Rygg, Consultant
International Window Film Association	WinBuild, Inc.
J & A Windows Inc.	Window and Door Manufacturer's Association
Jeld-Wen, Inc.	Window Covering Manufacturers Association
Keystone Certifications, Inc.	

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*If you notice a problem – PLEASE contact the staff of NFRC as soon as possible. **Discrepancies cannot be addressed after July 14, 2011:** [meetings@nfdc.org](mailto:meetings@nfdc.org)*



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NFRC 2011 Virtual Committee Week – Summer 2011  
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### **Board of Directors Meeting**

Wednesday, July 20, 2011

10:00 a.m. – 1:30 p.m.

Chair: *Steve Strawn, Jeld-Wen, Inc.*

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- 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. Research and Technology Committee (W. Lichtenberger)
  - b. Technical Committee (J. Baker)
  - c. Ratings Committee (S. Johnson)
- 5. Financial overview**
- 6. Unfinished Business**
- 7. New Business**
  - a. Board elections – designees and scheduling
- 8. Q&A (if time allows)**
- 9. Adjourn**

*NFRC Staff Liaison: James Benney, CAE, Chief Executive Officer \* [ibenney@nfr.org](mailto:ibenney@nfr.org)*



## Meeting Notes:

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NFRC 2011 Virtual Committee Week – Summer 2011  
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**NFRC Staff Directory  
Summer 2011**

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### 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.



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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.
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.
7. *NFRC's virtual meetings will follow all guidelines above – with specific virtual information available on the [NFRC FAQ page located online.](#)*



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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*



## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



## 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 Chief Executive Officer 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. (At a virtual meeting – membership can be obtained by emailing [meetings@nfr.org](mailto:meetings@nfr.org)) 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:*

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#### **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](http://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](mailto:membership@nfrc.org).



*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:
  - o Accreditation Policy Committee
  - o Certification Policy Committee
  - o Technical Interpretations Policy Committee
  
- NFRC Member Supported (see below for details):
  - o Regulatory Affairs and Marketing Committee
  - o Ratings Committee
  - o Research and Technology Committee
  - o 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





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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.



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**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.

**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 600-2010 Glossary and Terminology. Available on the NFRC website at <http://www.nfrc.org/technicaldocs.aspx>*



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## NFRC Summer Committee Week Meeting 2011 Pre-Registration List\* – (by Company Name)

**3G Mermet**

Philippe Paugois  
Cowpens, SC 29330

**3M**

Steve Kuncio  
St. Paul, MN 55144-1000

**Air-Ins, Inc.**

Dave Deshaies McMahon  
Varenes, QC J3X 1P7  
Canada

**Alliance to Save Energy**

Nils Petermann  
Washington, DC 20036

**American Architectural  
Manufacturers Association  
(AAMA)**

Ken Brenden  
Schaumburg, IL 60173

**Amsco Windows**

Joe Jonely  
Salt Lake City, UT 84125

**Andersen Corporation**

Steve Johnson  
Bayport, MN 55003-1096

**Architectural Testing, Inc. - PA**

Michael Thoman  
York, PA 17406

**Associated Laboratories, Inc.**

Brad Schultz  
Dallas, TX 75315

**Associated Laboratories, Inc.**

Brad Snoddy  
Dallas, TX 75315

**Associated Laboratories, Inc.**

John Vaughan  
Dallas, TX 75315

**Associated Materials, Inc.**

Steve Harp  
Wyoming, MN 55092

**Association of Millwork  
Distributors**

Jessica Ferris  
New Port Richey, FL 34655

**Atrium Companies Inc.**

Douglas Harden  
Dallas, TX 75247

**Australian Fenestration Rating  
Council (AFRC)**

Tracey Gramlick  
Gordon, NSW 2072  
Australia

**Benson Industries**

Catherine Best  
Portland, OR 97209

**Birch Point Consulting LLC**

Thomas Culp  
La Crosse, WI 54601

**Cardinal Glass Industries, Inc.**

Brian Crooks  
Eden Prairie, MN 55344

**Cardinal Glass Industries, Inc.**

Jim Larsen  
Eden Prairie, MN 55344

**Center for Sustainable Building  
Research**

Kerry Haglund  
Minneapolis, MN 55414

**Champion Window and Patio  
Room Company**

Rik Vonderhaar  
Cincinnati, OH 45241-6419

**Chelsea Building Products**

Gary Hartman  
Oakmont, PA 15139

**CPI Daylighting Inc.**

Yossi Vinograd  
Lake Forest, IL 60045

**Custom Window Systems, Inc.**

Michael La Fevre  
Ocala, FL 34474

**D&R International**

Emily Zachery  
Silver Spring, MD 20910

**Door & Access Systems  
Manufacturers Assoc.  
International (DASMA)**

Joseph Hetzel  
Cleveland, OH 44115-2851

**Door & Window Maker Magazine**

Ellen Rogers  
Garrisonville, VA 22463

**Edgetech I.G. Inc.**

Tracy Rogers  
Cambridge, OH 43725

**EFCO Corporation**

Josue Cavazos  
Monett, MO 65708

**Fenestration Testing Laboratory**

Jose Sanchez  
Medley, FL 33166

**Glen Raven, Inc.**

John Gant  
Glen Raven, NC 27217

**Greenberg Traurig, LLC**

Scott Meza  
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**Group 14 Engineering**

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**Guardian Industries Corp.**

Steve Farrar  
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**Guardian Industries Corp.**

Tim Singel  
Carleton, MI 48117

**HanitaTek**

Jim Black  
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**Heschong Mahone Group**

Mudit Saxena  
Gold River, CA 95670



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*Pre-registration List (by Company)  
Continued....*

**Hunter Douglas, Inc.**  
Michael Cienian  
Broomfield, CO 80020

**Hurricane Test Laboratory, LLC**  
Lucas Turner  
Hillboro, TN 37342

**Insulating Glass Manufacturers Alliance (IGMA)**  
Margaret Webb  
Ottawa, Ontario K1H 1B8  
Canada

**International Window Film Association**  
Darrell Smith  
Martinsville, VA 24115

**J & A Windows Inc.**  
Jose Antonio Terrazas  
Los Angeles, CA 90001

**Jeld-Wen, Inc.**  
Steve Strawn  
Portland, OR 97201

**Keystone Certifications, Inc.**  
Steve Urich, PE  
Etters, PA 17319

**Kolbe & Kolbe Millwork Company, Inc.**  
Sue Schreiber  
Wausau, WI 54401

**Larson Manufacturing Company**  
Todd Stratmoen  
Brookings, SD 57006

**Lawrence Berkeley National Laboratory (LBNL)**  
Charlie Curcija  
Berkeley, CA 94720

**Lawrence Berkeley National Laboratory (LBNL)**  
Jacob Jonsson  
Berkeley, CA 94720

**Lawrence Berkeley National Laboratory (LBNL)**  
Christian Kohler  
Berkeley, CA 94702

**Madico, Inc.**  
Andrew Hayes  
Woburn, MA 1801

**Marvin Windows & Doors**  
James Krahn  
Warroad, MN 56763

**Maxam Inc.**  
Jean-Francois Kogovsek  
Saint-Bruno, Quebec J3V 4L8  
Canada

**Mecho Shade Corporation**  
Steve Hebeisen  
Long Island City, NY 11101

**National Accreditation & Management Institute (NAMI)**  
Kelly McDonald  
Hayes, VA 23072

**National Accreditation & Management Institute (NAMI)**  
Thomas Wix  
Hayes, VA 23072

**National Certified Testing Laboratories**  
Steven Coble  
York, PA 17406

**Natural Light Energy Systems**  
Gregg Vincent  
Phoenix, AZ 85029

**Newell Window Fashions Inc.**  
Chuck Anderson  
Atlanta, GA 30328

**Nysan Shading Systems, LP**  
Paris Waddill  
Seattle, WA 98126

**ODL Incorporated**  
David De Block  
Zeeland, MI 49464

**ODL Incorporated**  
Raymond Dill  
Zeeland, MI 49464

**Pacific Gas & Electric Company (PG&E)**  
Theda Silver-Pell  
San Francisco, CA 94105

**Pella Windows and Doors**  
Joe Hayden  
Pella, IA 50219

**Peter Lyons & Associates**  
Peter Lyons  
Kaleen, ACT 2617  
Australia

**PGT Industries**  
Michael Nau  
Nokomis, FL 34275

**Phifer Incorporated**  
Andrew Caldwell  
Tuscaloosa, AL 35403

**Pilkington North America, Inc.**  
David Duly  
Toledo, OH 43624

**Professional Awning Manufacturers Assoc.**  
Michelle Sahlin  
Roseville, MN 55113

**Professional Awning Manufacturers Assoc.**  
Don Smallwood  
North Hollywood, CA 91605

**ProVia Door, Inc.**  
Chris Nolt  
Sugarcreek, OH 44681

**Roetzel & Andress**  
Thomas Zaremba  
Toledo, OH 43604

**Rollac Shutter of Texas, Inc.**  
Stefan Poetsch  
Pearland, TX 77581

**Royal Window and Door Profiles(sub of Royal Group)**  
Michel Pépin  
Laval, QC H7L 4C3  
Canada

**Simonton Windows**  
Tina Jenkins  
Parkersburg, WV 26102

**Soft-Lite Windows**  
Derek Elder  
Streetsboro, OH 44241

**Soladigm**  
Namrata Vora  
Milpitas, CA 95035

**Solatube International, Inc.**  
Dan State  
Vista, CA 92081-8341



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*Pre-registration List (by Company)  
Continued....*

**Solutia, Inc.**  
Lisa Winckler  
Fieldale, VA 24089

**Somfy Systems**  
Margaret Cook  
Dayton, NJ 8810

**Southwall Technologies**  
John Meade  
Palo Alto, CA 94303

**Stork Twin City Testing**  
Stephanie Skoglund  
St. Paul, MN 55114

**Sunergy Consulting**  
Willie DuPont  
Annapolis, MD 21403

**SunPine Consulting**  
Ross McCluney  
Chattanooga, TN 37419

**Sunrise Windows, LLC**  
Steven Haubert  
Temperance, OH 48182-9500

**TRACO**  
Sneh Kumar  
Cranberry Township, PA 16066

**Truseal Technologies, Inc.**  
Doug Hauck  
Solon, OH 44139

**VELUX-America Inc.**  
Roger LeBrun  
Greenwood, SC 29648-5001

**WESTLab**  
Jeff Baker  
Penetang, Ontario L9M 2H3  
Canada

**WESTLab**  
Ken Nittler  
Auburn, CA 95603

**William Rygg, Consultant**  
Tony Rygg  
Sacramento, CA 95864

**WinBuild, Inc.**  
Bipin Shah  
Fairfax, VA 22030

**Window and Door Manufacturer's  
Association (WDMA)**  
John McFee  
Chicago, IL 60611

**Window and Door Manufacturer's  
Association (WDMA)**  
Stewart Nicholas  
Chicago, IL 60611

**Wiss, Janney, Elstner &  
Associates**  
Anthony Cinnamon  
Chicago, IL 60603

**Contact Notes:**

\*Notes:

- List includes all registrations received (with payment) by 07/05/2011



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*Use box below to type any meeting notes you would like to capture*



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## NFRC Summer Committee Week Meeting 2011 Pre-Registration List\* – (by Last Name)

**Chuck Anderson**  
Newell Window Fashions Inc.  
Atlanta, GA 30328

**Jeff Baker**  
WESTLab  
Penetang, Ontario L9M 2H3  
Canada

**Catherine Best**  
Benson Industries  
Portland, OR 97209

**Jim Black**  
HanitaTek  
Mukwonago, WI 53149

**Ken Brenden**  
American Architectural  
Manufacturers Association (AAMA)  
Schaumburg, IL 60173

**Andrew Caldwell**  
Phifer Incorporated  
Tuscaloosa, AL 35403

**Josue Cavazos**  
EFCO Corporation  
Monett, MO 65708

**Michael Cienian**  
Hunter Douglas, Inc.  
Broomfield, CO 80020

**Anthony Cinnamon**  
Wiss, Janney, Elstner & Associates  
Chicago, IL 60603

**Steven Coble**  
National Certified Testing  
Laboratories  
York, PA 17406

**Margaret Cook**  
Somfy Systems  
Dayton, NJ 8810

**Brian Crooks**  
Cardinal Glass Industries, Inc.  
Eden Prairie, MN 55344

**Thomas Culp**  
Birch Point Consulting LLC  
La Crosse, WI 54601

**Charlie Curcija**  
Lawrence Berkeley National  
Laboratory (LBNL)  
Berkeley, CA 94720

**David De Block**  
ODL Incorporated  
Zeeland, MI 49464

**Dave Deshaies McMahon**  
Air-Ins, Inc.  
Varenes, QC J3X 1P7  
Canada

**Raymond Dill**  
ODL Incorporated  
Zeeland, MI 49464

**David Duly**  
Pilkington North America, Inc.  
Toledo, OH 43624

**Willie DuPont**  
Sunergy Consulting  
Annapolis, MD 21403

**Derek Elder**  
Soft-Lite Windows  
Streetsboro, OH 44241

**Steve Farrar**  
Guardian Industries Corp.  
Auburn Hills, MI 48326

**Jessica Ferris**  
Association of Millwork Distributors  
New Port Richey, FL 34655

**John Gant**  
Glen Raven, Inc.  
Glen Raven, NC 27217

**Shelia Gore**  
Group 14 Engineering  
Denver, CO 80218

**Tracey Gramlick**  
Australian Fenestration Rating  
Council (AFRC)  
Gordon, NSW 2072  
Australia

**Kerry Haglund**  
Center for Sustainable Building  
Research  
Minneapolis, MN 55414

**Douglas Harden**  
Atrium Companies Inc.  
Dallas, TX 75247

**Steve Harp**  
Associated Materials, Inc.  
Wyoming, MN 55092

**Gary Hartman**  
Chelsea Building Products  
Oakmont, PA 15139

**Steven Haubert**  
Sunrise Windows, LLC  
Temperance, OH 48182-9500

**Doug Hauck**  
Trusec Technologies, Inc.  
Solon, OH 44139

**Joe Hayden**  
Pella Windows and Doors  
Pella, IA 50219

**Andrew Hayes**  
Madico, Inc.  
Woburn, MA 1801

**Steve Hebeisen**  
Mecho Shade Corporation  
Long Island City, NY 11101

**Joseph Hetzel**  
Door & Access Systems  
Manufacturers Assoc. International  
(DASMA)  
Cleveland, OH 44115-2851

**Tina Jenkins**  
Simonton Windows  
Parkersburg, WV 26102

**Steve Johnson**  
Andersen Corporation  
Bayport, MN 55003-1096

**Joe Jonely**  
Amsco Windows  
Salt Lake City, UT 84125



NFRC Virtual Committee Week – Summer 2011  
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*Pre-registration List (by last name) Continued...*

**Jean-Francois Kogovsek**  
Maxam Inc.  
Saint-Bruno, Quebec J3V 4L8  
Canada

**Christian Kohler**  
Lawrence Berkeley National  
Laboratory (LBNL)  
Berkeley, CA 94702

**James Krahn**  
Marvin Windows & Doors  
Warroad, MN 56763

**Steve Kuncio**  
3M  
St. Paul, MN 55144-1000

**Michael La Fevre**  
Custom Window Systems, Inc.  
Ocala, FL 34474

**Jim Larsen**  
Cardinal Glass Industries, Inc.  
Eden Prairie, MN 55344

**Roger LeBrun**  
VELUX-America Inc.  
Greenwood, SC 29648-5001

**Peter Lyons**  
Peter Lyons & Associates  
Kaleen, ACT 2617  
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**Ross McCluney**  
SunPine Consulting  
Chattanooga, TN 37419

**Kelly McDonald**  
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Hayes, VA 23072

**John McFee**  
Window and Door Manufacturer's  
Association (WDMA)  
Chicago, IL 60611

**John Meade**  
Southwall Technologies  
Palo Alto, CA 94303

**Scott Meza**  
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McLean, VA 22102

**Michael Nau**  
PGT Industries  
Nokomis, FL 34275

**Stewart Nicholas**  
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Chicago, IL 60611

**Ken Nittler**  
WESTLab  
Auburn, CA 95603

**Chris Nolt**  
ProVia Door, Inc.  
Sugarcreek, OH 44681

**Philippe Paugois**  
3G Mermet (subsidiary of  
HunterDouglas Inc.)  
Cowpens, SC 29330

**Michel Pépin**  
Royal Window and Door Profiles  
Laval, QC H7L 4C3  
Canada

**Nils Petermann**  
Alliance to Save Energy  
Washington, DC 20036

**Stefan Poetsch**  
Rollac Shutter of Texas, Inc.  
Pearland, TX 77581

**Ellen Rogers**  
Door & Window Maker Magazine  
Garrisonville, VA 22463

**Tracy Rogers**  
Edgetech I.G. Inc.  
Cambridge, OH 43725

**Tony Rygg**  
William Rygg, Consultant  
Sacramento, CA 95864

**Michelle Sahlin**  
Professional Awning Manufacturers  
Assoc.  
Roseville, MN 55113

**Jose Sanchez**  
Fenestration Testing Laboratory  
Medley, FL 33166

**Mudit Saxena**  
Heschong Mahone Group  
Gold River, CA 95670

**Sue Schreiber**  
Kolbe & Kolbe Millwork Company,  
Inc.  
Wausau, WI 54401

**Brad Schultz**  
Associated Laboratories, Inc.  
Dallas, TX 75315

**Bipin Shah**  
WinBuild, Inc.  
Fairfax, VA 22030

**Theda Silver-Pell**  
Pacific Gas & Electric Company  
(PG&E)  
San Francisco, CA 94105

**Tim Singel**  
Guardian Industries Corp.  
Carleton, MI 48117

**Stephanie Skoglund**  
Stork Twin City Testing  
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**Don Smallwood**  
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**Darrell Smith**  
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Association  
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**Brad Snoddy**  
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Dallas, TX 75315

**Dan State**  
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Vista, CA 92081-8341

**Todd Stratmoen**  
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Brookings, SD 57006

**Steve Strawn**  
Jeld-Wen, Inc.  
Portland, OR 97201

**Jose Antonio Terrazas**  
J & A Windows Inc.  
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**Michael Thoman**  
Architectural Testing, Inc. - PA  
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**Lucas Turner**  
Hurricane Test Laboratory, LLC  
Hillboro, TN 37342



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*Pre-registration List (by last name) Continued...*

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Etters, PA 17319

**John Vaughan**  
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Dallas, TX 75315

**Gregg Vincent**  
Natural Light Energy Systems  
Phoenix, AZ 85029

**Yossi Vinograd**  
CPI Daylighting Inc.  
Lake Forest, IL 60045

**Rik Vonderhaar**  
Champion Window and Patio Room  
Company  
Cincinnati, OH 45241-6419

**Namrata Vora**  
Soladigm  
Milpitas, CA 95035

**Paris Waddill**  
Nysan Shading Systems, LP  
Seattle, WA 98126

**Margaret Webb**  
Insulating Glass Manufacturers  
Alliance (IGMA)  
Ottawa, Ontario K1H 1B8  
Canada

**Lisa Winckler**  
Solutia, Inc.  
Fieldale, VA 24089

**Thomas Wix**  
National Accreditation &  
Management Institute (NAMI)  
Hayes, VA 23072

**Emily Zachery**  
D&R International  
Silver Spring, MD 20910

**Thomas Zaremba**  
Roetzel & Andress  
Toledo, OH 43604

**Contact Notes:**

**\*Notes:**

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### NFRC Virtual Meeting - Frequently Asked Questions

#### LOGISTICS –*Meeting Specific Questions (General)*

- [When is the NFRC's Virtual Committee Meeting for Summer 2011?](#)
- [What are the times of the NFRC's Virtual Meeting?](#)
- [What is the difference between a Membership Meeting and a Committee Week Meeting?](#)
- [What is the registration process and cost to attend the NFRC Virtual Committee Week?](#)
- [What would the Virtual Meeting Schedule look like? What groups will meet when? Can I see a sample?](#)
- [Will Task Groups Meet at the NFRC Virtual Meeting?](#)
- [Can non-members attend the NFRC Virtual Committee Week Meeting?](#)
- [How will the NFRC know I am a member at the NFRC Virtual Committee Week Meeting \(for voting purposes & security\)?](#)
- [Will ballots be discussed at the NFRC Virtual Committee Week Meeting?](#)

#### MEETING TASKS – *Right Before and During the Meeting*

- [How will I receive access to the virtual meeting site?](#)
- [Will my log on to GO-TO Webinar be good for all three days of the meeting?](#)
- [How do I join/log-into the NFRC's Virtual Committee Week? †](#)
- [How will I speak at the NFRC Virtual Meeting?](#)
- [How will I give a presentation at the NFRC Virtual Committee Week Meeting?](#)
- [How will I vote on NFRC Ballots?](#)
- [Can I bring up New Business at an NFRC Virtual Committee Week Meeting?](#)
- [Will there be a member roll call for the Committees at the NFRC Virtual Committee Week? How will I prove my attendance?](#)
- [Can I sign up to join a committee at the NFRC Virtual Committee Week?](#)

#### GO-TO WEBINAR - Equipment and other GO-TO Webinar/Technical Questions

- [Where can I go for technical support to prepare for the Virtual Meeting \(GoTo Webinar/RW Poll Voting\)?](#)
- [Is there a recommended equipment list for participating/attending the NFRC Virtual Committee Week via GO-TO Webinar?](#)
- [What microphone/speaker configuration do you recommend for best audio quality using VoIP? †](#)
- [What is VoIP?](#)
- [What are the system requirements for attending the NFRC Virtual Committee Week via GO-TO Webinar? †](#)
- [What kind of equipment will I need to participate in the NFRC Virtual Committee Week? †](#)
- [Do I need a GoToWebinar account to attend the NFRC's Virtual Committee Week?†](#)
- [Will there be opportunities to practice with the features of GO-TO webinar and my equipment prior to the meeting?](#)
- [Where can I go for help with audio problems? †](#)
- [Can my computer receive a virus from downloading the software or attending the session? †](#)
- [Do I need to set my browser to accept cookies in order to participate in NFRC's Virtual Committee Week??](#)

Do you have more questions? Send them to [meetings@nfr.org](mailto:meetings@nfr.org). We are happy to answer your question and will add to this list as the meeting approaches.

Thank you for your interest and support of the NFRC program.



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### **When is the NFRC's Virtual Committee Week for 2011?**

The NFRC's Virtual Committee Week meeting for 2011 will take place July 18-20, 2011.

### **What are the times of the NFRC's Virtual Meeting?**

The upcoming Virtual Committee Week will run each day starting at 10:00 a.m. and conclude at 6:30 p.m. Each day there will be a one hour break as indicated [on the meeting schedule](#). All times listed are eastern daylight time (EDT).

### **What is the difference between a Membership Meeting and a Committee Week Meeting?**

The NFRC Committee Week Meeting is a streamlined gathering for moving motions and other important NFRC business through the subcommittee, committee and board levels. While sharing many of the characteristics of the NFRC Membership Meeting the NFRC Committee Week Meetings (virtual or face-to-face) will only host the following committees and their subsequent subcommittees, followed by a board meeting for final approval/discussion:

1. Research and Technology Committee
2. Technical Committee
3. Ratings Committee

Therefore you can expect these items to be different than at a traditional NFRC Membership Meeting:

- Three days in length
- Virtual meeting will be once a year; face-to-face once a year
- No Task Group meetings – Task Groups will meet prior to the meetings on their own at various scheduled times. When appropriate they will report at the Committee Week during the subcommittee portion.
- No Board Committee Reporting – The NFRC Policy Committees will meet on their own at various scheduled times. They will continue to meet/report to the membership at the NFRC Membership Meetings. These groups include the Accreditation Policy Committee, Technical Interpretation Policy Committee, and the Certification Policy Committee.
- No Regulatory Affairs and Marketing Meeting (unless action is expected/required)
- No organized/association sponsored networking events

### **Is there a recommended equipment list for participating attending the NFRC Virtual Committee Week via GO-TO Webinar?**

NFRC recommends all attendees have a minimum of a broadband connection to the internet. The NFRC meeting will move forward regardless of individual equipment challenges; it is highly recommended all attendees take advantage of one or both of the training/equipment testing webinars available for attendees to test personal equipment/meeting capabilities prior to the conference. ([Click here to read more](#))

Other equipment specifics [NFRC is recommending the following items](#) but does not guarantee or endorse any of these products.

### **What is VOIP?**

It stands for Voice Over Internet Protocol -- basically internet telephony. For best sound quality while using VoIP, and to avoid echoes:

- Select a headset with noise cancelling microphone



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- Avoid being too close to other devices which may produce electromagnetic interference ( i.e. power strip, back of monitor, other cordless phones, baby monitors)
- Be sure to monitor your own breathing to avoid breathing heavily into the open microphone. This can be quite distracting to other attendees.

### What microphone/speaker configuration do you recommend for best audio quality using VoIP?

†

For optimum audio quality, we recommend a USB headset connected to your computer, or USB headphones and standalone microphone connected to your computer. Analog versions are okay, but not ideal. Many have not had good results using the microphone and speakers built in to your laptop or USB Webcam. NFRC does not guarantee any products – we recommend testing all equipment prior to the meeting dates.

For practice using GO-TO webinar features, compatibility with security measures on your system, testing of equipment, or speaking at an NFRC we recommend taking advantage of the practice sessions NFRC will be hosting prior to the meeting. Dates TBD (June/July). Member emails/Check the NFRC website

### What are the system requirements for attending the NFRC Virtual Committee Week via GO-TO Webinar? †

- Internet Explorer® 6.0 or newer, Mozilla® Firefox® 3.0 or newer (JavaScript™ and Java™ enabled)
- Windows® 2000, XP, 2003 Server, Vista or Windows® 7
- Cable modem, DSL or better Internet connection
- Minimum of Pentium® class 1GHz CPU with 512 MB of RAM (recommended) (2 GB of RAM for Windows® Vista)
- Participants wishing to connect to audio using VoIP will need a fast Internet connection, a microphone and speakers. (A USB headset is recommended.)
- **On a Mac®**
- Safari™ 3.0 or newer, Firefox® 3.0 or newer (JavaScript™ and Java™ enabled)
- Mac OS® X 10.4 or newer – Tiger®, Leopard® and Snow Leopard®
- PowerPC G4/G5 or Intel processor (512 MB of RAM or better recommended)
- Cable modem, DSL, or better Internet connection
- Participants wishing to connect to audio using VoIP will need a fast Internet connection, a microphone and speakers (A USB headset is recommended).

For practice using GO-TO webinar features, compatibility with security measures on your system, testing of equipment, or speaking at an NFRC we recommend taking advantage of the practice sessions NFRC will be hosting prior to the meeting. Dates TBD (June/July). Member emails/Check the NFRC website

### What kind of equipment will I need to participate in the NFRC Virtual Committee Week? †

To attend an online Webinar the following is required:

- **For PC-based participants:**
  1. Internet Explorer® 6.0 or newer, Mozilla® Firefox® 3.0 or newer (JavaScript™ and Java™ enabled)
  2. Windows® 2000, XP, 2003 Server, Vista or Windows® 7
  3. Cable modem, DSL, or better Internet connection



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4. Minimum of Pentium® class 1GHz CPU with 512 MB of RAM (recommended) (2 GB of RAM for Windows® Vista)
- **For Mac®-based participants:**
  1. Safari™ 3.0 or newer, Firefox® 3.0 or newer (JavaScript™ and Java™ enabled)
  2. Mac OS® X 10.4 or newer – Tiger®, Leopard® and Snow Leopard®
  3. PowerPC G4/G5 or Intel processor (512 MB of RAM or better recommended)
  4. Cable modem, DSL, or better Internet connection
  5. Participants wishing to connect to audio using VoIP will need a fast Internet connection, a microphone and speakers. (A USB headset is recommended.)

For practice using GO-TO webinar features, compatibility with security measures on your system, testing of equipment, or speaking at an NFRC we recommend taking advantage of the practice sessions NFRC will be hosting prior to the meeting. Dates TBD (June/July).  
Member emails/Check the NFRC website

### **What is the registration process and cost to attend the NFRC Virtual Committee Week?**

The registration process will be similar to the NFRC membership meeting. You can register online via the NFRC website (available in early June 2011) or via an off-line registration form downloaded from the [NFRC upcoming meeting page](#). The cost for the July 2011 meeting is as follows:

- Members - \$75 per registrant
- Nonmembers- \$225 per registrant

Checks, Visa, MasterCard, Discover and American Express are accepted. Payment must be received before login information is delivered to registered attendee.

### **What would the Virtual Meeting Schedule look like?**

#### **What groups will meet when?**

#### **Can I see a sample?**

The NFRC's Virtual Committee Week will feature one committee block per day, with the Ratings Committee Block and the Board Meeting being held on the final day. To access the NFRC Virtual Committee Week Schedule for 2011 [click here](#).

### **How will I receive access to the virtual meeting site?**

Once registration and payment are received by the NFRC you will receive a detailed receipt including an individualized link to login to the NFRC's Virtual Committee Week meeting.

Your link will be specific to your registration/email address.

Your link will be good for all three days of the meeting.

### **Will my log on to GO-TO Webinar be good for all three days of the meeting?**

Yes; the one web-link and username/log on will be good for all three days of the NFRC Virtual Committee Week meeting.

### **How do I join/log-into the NFRC's Virtual Committee Week? †**

Click the link in your confirmation or reminder emails, which will be automatically sent to you after your registration is confirmed and leading up to the Webinar. ([more information on registering – go here](#))

*Other ways to participate:*

1. Go to [www.joinWebinar.com](http://www.joinWebinar.com). Type or paste in the Webinar ID provided by the NFRC in the Webinar invitation email, enter your email address, click "Yes" or "Always" (or "Trust" on a Mac) if prompted to accept the download.



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2. Click the "Join a Webinar" button from [www.gotowebinar.com](http://www.gotowebinar.com) . Type or paste in the Webinar ID provided by the NFRC in the Webinar receipt/confirmation email, enter your email address, click "Yes" or "Always" (or "Trust" on a Mac) if prompted to accept the download and, if required, enter the Webinar password provided by the organizer.

### **Do I need a GoToWebinar account to attend the NFRC's Virtual Committee Week?†**

No, you do not need a GoToWebinar account to attend a GoToWebinar session – including the NFRC's Virtual Committee Week. You attend as a guest of the Webinar organizer, the NFRC, and there is no obligation to buy or sign up for a free trial. A small module may need to be installed on user's system upon first time access of gotowebinar. To join a Webinar, click the link in the confirmation or reminder emails or go to [www.joinWebinar.com](http://www.joinWebinar.com) and enter the Webinar ID found in the receipt/confirmation email.


### **Will there be opportunities to practice with the features of GO-TO webinar and my equipment prior to the meeting?**

For practice using GO-TO webinar features, compatibility with security measures on your system, testing of equipment, or speaking at an NFRC we recommend taking advantage of the practice sessions/equipment optimization webinars NFRC will be hosting prior to the meeting. [Dates posted on the NFRC website.](#)

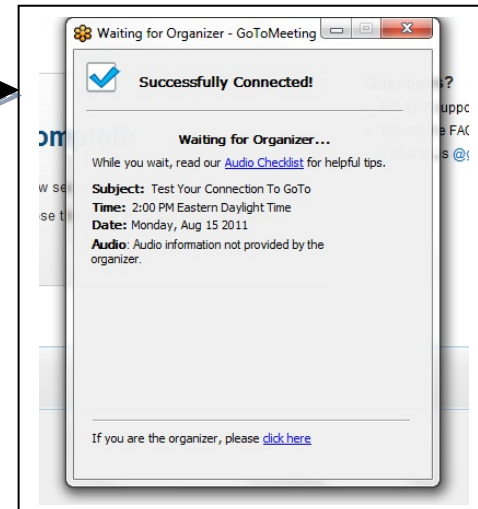
Member's will receive emails to alert of dates as well.

You can also test your browsers compatibility with the GoTo programs by going to the test site at any time prior to the meeting by clicking here:

<https://www1.gotomeeting.com/join/610498385>

If you successfully connect you will get the following screen:  If you have problems you may need to change browsers, Internet Explorer is recommended.

To further trouble shoot [click here to access GoTo connection tips](#) or contact GoTo's Global Support at 888/259-8414.



### **Where can I go for help with audio problems? †**

If no one can hear you, here are some quick tips:

- Did you dial the correct number? Try redialing into the conference.
- Double-check that you have the correct audio option selected – for instance, you cannot use mic and speakers when you have "Use Telephone" selected.
- Are the correct sound devices selected on your GoToMeeting Preferences (or Audio, on a Mac®) menu?
- If using a microphone with a mute/unmute button, is your microphone muted?
- Is your speaker volume set too low?
- If using microphone and speakers, is your Internet connection too slow? (We recommend a broadband Internet connection for VoIP transmissions.)



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If you are still having audio problems, please contact NFRC - *we will have technical support available during the conference via chat and phone.* [You may also call GO-TO Webinar Global Customer Support at 1-888-259-8414 or direct dial +1-805-617-7000.](#) If you are calling from outside the United States, click Contact Support on the Global Customer Support page for our international numbers.

### **Can my computer receive a virus from downloading the software or attending the session? †**

No, neither organizers nor attendees can catch or be exposed to viruses from downloading GoTo software. GO-TO Webinar continuously monitors the development environment for viruses and malware, and all of the downloadable software is digitally signed to prevent tampering by third parties. The warning message customers might see when they install the software is a default message displayed by their browser whenever they download executable files.

### **Do I need to set my browser to accept cookies in order to participate in NFRC's Virtual Committee Week??**

You will need to log in to an existing account; therefore you will need to adjust your browser's privacy settings to accept cookies. GO-TO Webinar primarily uses cookies to provide you with secure access to your account.

### **Will Task Groups Meet at the NFRC Virtual Meeting?**

The NFRC Committee Week will not include any time for the task groups to meet. Task groups are encouraged to schedule meetings prior to the NFRC Committee Weeks and Membership Meetings. Based on subcommittee chair prerogative, task groups may be expected to report on activities.

### **How will I speak at the NFRC Virtual Meeting?**

NFRC encourages the use of VOIP ([voice over internet protocol](#)) for virtual participation. A list of recommended equipment for participation [can be found here](#). However you may also participate via dial in phone number using your phone and an individualized audio pin.

All participants will be muted until recognized to speak by the meeting administrator.

To request an opportunity to speak to the group you must do one of the following:

- Pre-Schedule/submit a presentation to the meeting chair and NFRC staff liaison. *All presentations must be turned into staff fifteen days prior to the start date of the NFRC Meeting.*
- Confirm you will be chairing/running the subcommittee/committee meeting with NFRC staff.
- Use the raise hand feature in GO-TO Webinar to cue yourself in line to speak. (Green arrow, arrow facing up your hand is down, click and your hand will then be up; Red arrow down your hand is UP, click to have it go down)\*
- Send an instant message to the NFRC Administrators during the meeting requesting an opportunity to speak.\*

For practice using equipment, hand raising feature, or speaking at the NFRC Virtual Committee Week we recommend taking advantage of the practice sessions NFRC will be hosting prior to the meeting. [Check the NFRC website for dates](#). Members will receive emails with details/dates.

\*As per NFRC Meeting Guidelines anyone speaking at an NFRC meeting is at the chairs discretion and is expected to abide by Roberts Rules of Order.



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### **Can non-members attend the NFRC Virtual Committee Week Meeting?**

Yes, members and non-members alike are welcome to attend the NFRC meeting. Non-Members are welcome to address the chair (at the chair's discretion/as time allows) but will not have a vote throughout the conference.

[\(How will NFRC know I am a member – for voting purposes?\)](#)

[\(How to speak at an NFRC Virtual Committee Week Meeting?\)](#)

### **How will the NFRC know I am a member at the NFRC Virtual Committee Week Meeting (for voting purposes & security)?**

When each registrant registers for the meeting – NFRC will assign the person (based on their email address) a user name for the conference. All NFRC voting members will be clearly identified to NFRC staff. These identifications will only be adjustable/viewed by the administrator of the meeting, the NFRC staff.

### **How will I give a presentation at the NFRC Virtual Committee Week Meeting?**

Anyone wanting to give a presentation at the NFRC Virtual Committee Week Meeting will be required to pre-schedule and submit a presentation to the meeting chair and NFRC staff liaison. All presentations must be turned into staff fifteen days prior to the start date of the NFRC Meeting. All presentations are strongly encouraged to be under ten minutes in length.

Presentations will be run by NFRC staff; however presenters will be un-muted for the duration of their presentation.

### **Will ballots be discussed at the NFRC Virtual Committee Week Meeting?**

Yes, there will be a standard distribution of ballots via the NFRC website prior to the NFRC Committee Weeks both virtual and face-to-face. All ballot comments received by the proscribed deadline will be reviewed via the virtual desktop during each subcommittee's allotted time slot.

Any member wishing to support their comments or comment at the NFRC meeting will have an opportunity to speak, at the chair's discretion. Please see FAQ question – [How do I speak at the NFRC Virtual Meeting](#) for details on speaking at the NFRC Virtual Committee Week meeting.

### **How will I vote on NFRC Ballots?**

Similar to the face-to-face meetings a call to vote will be announced by the Chair of the Committee/Subcommittee. The member only/committee only vote will be done via the Turning Technologies RW Poll program. Voting members will have received (in advance) a separate email with a login and a specific session ID to participate. This will be a separate internet window from the GO-TO Webinar.

There will be one vote login per member company; NO registrations/proxies will be accepted after July 14th, 2011.

For practice using the voting feature we recommend taking advantage of the practice sessions NFRC will be hosting prior to the meeting. Dates TBD (June/July).

Member emails/Check the NFRC website.



**Can I bring up New Business at an NFRC Virtual Committee Week Meeting?**

Yes, all attendees are able to bring up new business during the “new business” portion of the Agenda during each subcommittee/task group. Discussion of new business items will be allowed at the discretion of the chair and as time allows. All presentations must be submitted prior to the meeting.

[See question on presentation](#) for more information on submitting or making a presentation at an NFRC Virtual Meeting.

[See question on speaking](#) for details on how to speak at an NFRC Virtual Meeting.

**Will there be a member roll call for the Committees at the NFRC Virtual Committee Week? How will I prove my attendance?**

Yes there will be a roll call at each committee. Attendance will be taken with the Go-To webinar hand raise feature. As each member-company’s name is called the attendee will use the hand-raise feature to prove current attendance. (Green – hand is up/Red – hand is down) This roster will also act as proof of attendance for use of keeping spots on the committee roster. (Similar to as the Roll Call at face-to-face meetings).

**Can I sign up to join a committee at the NFRC Virtual Committee Week?**

All members in good standing are encouraged to join committees. This can be done by current attendees of the virtual meeting by sending an email to the chair of the committee or the committee liaison during or directly after the meeting - within fifteen days.

Signing up to be on a committee will allow for your organization’s name to be on the roster (a vote) at **the next** NFRC membership meeting or Committee Week. Note – only one vote per member company.

**Where can I go for technical support to prepare for the Virtual Meeting (GoTo Webinar/RW Poll Voting)?**

NFRC is using the GoTo Webinar platform to host the virtual meeting and Turning Technology’s RW Poll to allow for member voting. Both organizations have their own support lines which have excellent support staff available prior to and during the meeting times.

- GoTo Global Support: 888/259-8414
- RW Poll Support: 877/726-4602

*NFRC attendees are encouraged to test equipment/connections prior to the conference [Dates posted on the NFRC website](#). Member’s will receive emails to alert of dates as well.*

† Specific information gathered from the GO-TO Webinar FAQ page at [http://www.gotomeeting.com/fec/webinar/webinar\\_support](http://www.gotomeeting.com/fec/webinar/webinar_support)





## Meeting Notes:

*Use box below to type any meeting notes you would like to capture*



# Program Booklet

## POTENTIAL DESIGNEES

### FOR NOMINATION TO THE NFRC BOARD OF DIRECTORS

**NOTE:**

- *Please designate only one person for each category.*
- *Please complete and return only one form to NFRC staff*
- *All potential designees will be contacted by NFRC staff and/or the NFRC Governance Committee to determine their interest.*
- *All potential designees will be sent a packet of information outlining their fiduciary and legal responsibilities as a Board Member of NFRC.*
- *To be considered for nomination, all potential designees will be required to complete and sign a Conflict of Interest Questionnaire and provide a biography.*

**I hereby designate the following person(s) for potential nomination to the NFRC Board of Directors:**

**Open - slot open for election (3 years) – “General Interest Category (specified); specifically a not-for-profit consumer, environmental or energy efficiency organization.**

Name: \_\_\_\_\_

Contact Information: \_\_\_\_\_

**Open - slot open for election (3 years) – “Laboratory Category. There will be one Board member elected in the Laboratory Category. The individual serving in the Laboratory Category shall be employed by or have a significant affiliation with a current NFRC Member in good standing who is in the Labs membership category.**

Name: \_\_\_\_\_

Contact Information: \_\_\_\_\_

**Open - slot open for election (3 years) - Fenestration Industry Category (specified); specifically for a manufacturer who sells the majority of its fenestration products or systems for use in commercial construction.**

Name: \_\_\_\_\_

Contact Information: \_\_\_\_\_



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**Open - slot open for election (3 years) Fenestration Industry Category (unspecified).** “All of the individuals serving in the Fenestration Industry Category shall be employed by or have a significant affiliation with current NFRC Members in good standing who are in the Fenestration Industry membership category. Of those five positions, at least three shall be filled by one individual employed by or affiliated with an NFRC Member from each of the following categories: (i) a primary glass manufacturer; (ii) a manufacturer who sells the majority of its fenestration products or systems for use in commercial construction; and (iii) a manufacturer who sells the majority of its fenestration products or systems for use in residential construction.”

Name: \_\_\_\_\_

Contact Information: \_\_\_\_\_

**Open – slot open for election (3 years) - “General Interest Category (unspecified).** All of the individuals serving in the General Interest Category shall be employed by or have a significant affiliation with current NFRC Members in good standing who are in the General Interest membership category. Of those six positions, at least three shall be filled by one individual employed or affiliated with an NFRC Member from each of the following categories: (i) a federal, state or local government energy or building code office; (ii) a not-for-profit institution of research or higher education; and (iii) a not-for-profit consumer, environmental or energy efficiency organization.

Name: \_\_\_\_\_

Contact Information: \_\_\_\_\_

**PLEASE BE SURE TO SIGN AND RETURN THIS FORM TO THE NFRC OFFICE NO  
LATER THAN AUGUST 19, 2011**

NAME \_\_\_\_\_

MEMBER ORGANIZATION: \_\_\_\_\_

SIGNATURE \_\_\_\_\_

**THANK YOU!**

NATIONAL FENESTRATION RATING COUNCIL  
6305 Ivy Lane Suite 140  
Greenbelt, MD 20770  
301-589-1776 (ph); 301-589-3884 (fax)