



PROGRAM BOOKLET

(Agendas, Draft Minutes & Committee Rosters enclosed)

NFRC 2011 Spring Committee Meeting Week

Las Vegas, Nevada

March 28 – 30, 2011



National Fenestration Rating Council

6305 Ivy Lane, Suite 140

Greenbelt, MD 20770

301/589-1776

www.nfrc.org



NFRC 2011 Spring Committee Week Meeting
 March 28-30, 2011, Las Vegas, NV

Program Booklet

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NFRC 2011 Spring Committee Week Meeting ~ March 28 - 30, 2011

[\(To view schedule optimized for your smart phone; click here\)](#)

Bally's Las Vegas Casino & Hotel; Las Vegas, Nevada

Schedule subject to change

	Monday 03/28/11 SkyView Ballroom 5/6 - 26th Floor	Tuesday 03/29/11 SkyView Ballroom 5/6 - 26th Floor	Wednesday 03/30/11 SkyView Ballroom 5/6 - 26th Floor
8:00 a.m.†	<p>Welcome to Committee Week: NFRC Chair Opening and Meeting Announcements***</p> <hr/> <p>Research & Technology Committee Block (8:00 a.m.-11:30 a.m.)</p>	<p>Technical Committee Block (Part Two: 8:00 a.m.-11:00 a.m.)</p> <p>Subcommittees to Convene:**</p> <ul style="list-style-type: none"> • Software Subcommittee • CMA Subcommittee (Technical) • Attachments Subcommittee <p>Technical Committee will convene after a 15 minute break once all Subcommittees have adjourned.</p>	<p>NFRC Board Meeting (8:00 a.m.-11:00 a.m.)</p> <p>«All Registered Meeting Attendees Welcome»</p>
9:00 a.m.	<p>Subcommittees to Convene:</p> <ul style="list-style-type: none"> • Thermophysical Property of Materials SC • Research Subcommittee • Optical Properties Subcommittee 		
10:00 a.m.			
11:00 a.m.		Meeting Break	<p>NFRC Spring Committee Week Ends <i>Meeting Attendees – on your own</i></p> 
11:30 a.m.	NFRC Networking Luncheon (11:30 a.m.-12:30 p.m.)	<i>Meeting Attendees – on your own</i> (11:00 a.m.-12:30 p.m.)	
12:00 p.m.			
12:30 p.m.	<p>Research & Technology Committee Block Continued... (12:30 p.m.-2:00 p.m.)</p> <p>Research & Technology Committee will convene after a 15 minute break once all Subcommittees have adjourned.</p>	Ratings Committee Block (12:30 p.m.-5:30 p.m.)	
1:00 p.m.		<p>Subcommittees to Convene:</p> <ul style="list-style-type: none"> • NFRC 700 (PCP) Certification Subcommittee • NFRC 705 (CMA) Certification Subcommittee • NFRC 712 (Attachments) Certification Subcommittee <p>Ratings Committee will convene after a 15 minute break once all Subcommittees have adjourned.</p>	
2:00 p.m.	<p>Technical Committee Block (Part One: 2:00 p.m.-5:30 p.m.)</p>		
3:00 p.m.	<p>Subcommittees to Convene:**</p> <ul style="list-style-type: none"> • Condensation Resistance Subcommittee • Air Leakage Subcommittee • Annual Energy Performance Subcommittee • U-Factor Subcommittee • Solar Heat Gain Subcommittee 		
4:00 p.m.			
5:00 p.m.	<p><i>Continued 8:00 a.m. 3/29/11** ...</i></p>		
5:30 p.m.	Meeting Attendees – on your own.....	Meeting Attendees – on your own.....	

†Complimentary continental breakfast for all NFRC Meeting registrants will be served Monday through Wednesday before the first meeting convenes (*will be available for up to one hour, Starting at 7:00 a.m.*)

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

***The Research & Technology Committee Block will begin immediately following opening remarks.

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



National Fenestration
Rating Council®

BOARD OF DIRECTORS

CHAIR

Steve Strawn
JELD-WEN

VICE-CHAIR

Kerry Haglund
Center for Sustainable Building
Research

SECRETARY

Steve Farrar
Guardian Industries Corp.

TREASURER

Michael Thoman
Architectural Testing, Inc.

OMBUDSMAN

Jim Krahn
Marvin Windows and Doors

IMMEDIATE PAST CHAIR

Joe Hayden
Pella Corporation

Christian Kohler
Lawrence Berkeley National
Laboratory

Sneh Kumar
TRACO

James Larsen
Cardinal Glass Industries, Inc.

Ross McCluney
SunPine Consulting

Nelson Pena
California Energy Commission

Nils Petermann
Alliance to Save Energy

Tony Rygg
Consultant

Chief Executive Officer
James C. Benney

March 11, 2011

Dear NFRC Members and Guests:

It is my privilege as the new Chairman of NFRC to welcome you to Las Vegas.

I am honored to serve in this capacity and I want to thank all of NFRC's members and meeting attendees for the willingness to spend their time and energy on the development of energy ratings for fenestration products and fenestration attachments.

As you see by this week's schedule, we will only be meeting as Subcommittees and Committees with no Task Group and Reporting committee activities scheduled but we still expect a very busy three days of meetings.

We have many challenges ahead of us, which have been identified in our Strategic Direction. These include:

- Our strategic objective to simplify and improve NFRC's existing programs (specifically the Product Certification Program). The Board of Directors will be spending Monday evening discussing ideas on this specific objective and we will report our progress at the Board meeting on Wednesday morning.
- Our strategic objective to develop attachment product rating programs consistent with NFRC's mission and the public's interest. The Board of Directors recently issued direction to the Attachments Subcommittee with the hopes of accomplishing this objective in a timely manner.

For those of you interested in learning more about our strategic direction, please look under the Members Only section of our website.

I hope that you will take the opportunity to see the sights and sounds of Las Vegas – so much to see and so much to do! And please be sure and let me know if there is anything I can do to improve your experience with NFRC and especially at this 2011 Spring Committee Week.

Sincerely,

Steve Strawn

Chair, NFRC Board of Directors



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NFRC's Spring Meeting: SPECIAL NOTES



Meeting Hotel:

Bally's Las Vegas Casino and Hotel

(<http://www.nfrc.org/NFRC-Spring2011.aspx>)

3645 Las Vegas Blvd South

Las Vegas, Nevada 89109

877-603-4390* Reservations (online above) or 1-800-CEASARS

NFRC Program Booklet:

NFRC is once again going **green**: NOTE - there will be **no printed copies of this program book available** on-site. **ONLY** Flash drives with an electronic version! If you need any hard copies - please print before coming to meeting or you will need to use the hotel's business center. Included on the flash drives will be the program booklet, ballots and ballot summaries, motion forms and task group notes pages.

Committee Week = Abbreviated Meeting

Committee Weeks are different! Subcommittee & Committee meetings will run each day with the Board meeting on Wednesday. There will be no reporting committees, no task groups and no membership reception. Members and non-members are welcome as registered guests to all meetings; however, please note, only members can vote at the Subcommittee/Committee level.

Packed Schedule! Meetings start 8:00 a.m.: The NFRC's Chair of the Board will kick off the week's meetings first thing on Monday morning with a brief introduction. The Research and Technology Committee Block will then begin with subcommittees rolling one after the other (jump to schedule here).

Networking Luncheon, Monday March 28, 2011

11:30 a.m. - 12:30 p.m.: **Skyview 5/6** All Registrants Welcome.

Special Note: As with all the committees throughout the week, the subcommittees will meet consecutively under their allotted committee block. This may mean that subcommittee meetings scheduled for one day could be moved to the day before if time allows. (Watch for this with the split Technical block March 28 and 29.)

Voting at the Committee Week



- ✓ NFRC will distribute voting cards at onsite registration to member companies (one per member company) and those holding proxies*.
- ✓ After each motion attendees will be able asked to hold up the appropriate card to vote on all motions up for vote at the meeting.
- ✓ NFRC Staff will count visible cards to obtain voting results.
- ✓ Voting Card Polling will be used Monday, March 28, and Tuesday, March 29 at the Committee and Subcommittee Meetings.
- ✓ Members will be responsible for obtaining their voting cards through the registration staff prior to voting; Members will be responsible for ensuring the appropriate representative of the Member Company is in possession of the Voting Card prior to the need to vote.

***Proxies must be received prior to the start of the NFRC Meeting. They must be filled out and signed by a member representative from the absent organization.**



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. Call to Order

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

2. Appoint Recording Secretary

3. Approve Minutes from November 2011 meeting in San Francisco, CA

4. Review and approve agenda

5. Reports

- a. Thermophysical Property manufacturer specific submissions-Ray McGowan, staff
- b. NFRC 101 Task Group Report-Joe Hayden, Pella
- c. Electronic version of Appendix B Tables

6. Unfinished Business

7. New Business

- a. Consider thermophysical property ILC test result submission for addition to NFRC approved testing labs
- b. Appoint new vice chair

8. Adjourn

SCOPE

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



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Meeting Notes:

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



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

Thermophysical Properties Subcommittee

Tuesday, November 9, 2010

Block Period: 7:00 a.m. – 3:00 p.m.

Chair: Charlie Curcija, Lawrence Berkeley National Labs

- 1. Chair Charlie Curcija called the meeting to order at 7:04 a.m.**
 - 2. John Lewis, NFRC Staff appointed recording secretary**
 - 3. Reports**
 - a. Thermophysical Property manufacturer specific submissions - Ray McGowan (NFRC staff) provided a report indicating 11 new materials since July 2010.
 - b. Thermophysical Properties Inter-Laboratory Comparison (ILC) update – R. McGowan provided a Thermophysical Properties ILC results and announced that four commercial labs successfully participated enabling them to be listed on the NFRC as NFRC compliance testing labs.
 - 4. New Business**
 - a. NFRC 101 and the THERM library - Appendix a and b electronic development. Chair Curcija provided a status update, and also discussed ramifications of converting Appendix c in electronic format as well (no plans to convert Appendix c).
 - b. Appointment of the chair of TG to re-examine generic material tables (Appendices A and B). Chair Curcija reviewed this matter; still looking for a volunteer for this position.
 - c. Chair Curcija stated there is a need a vice chair for the Thermophysical Properties SC.
 - 5. Adjourn: 7:27 a.m.**
-



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Meeting Notes:

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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. Call to Order

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

2. Appoint Recording Secretary

3. Approve Minutes from November 2011 meeting in San Francisco, CA

4. Review and approve agenda

5. Reports

- a. Research Project Status and Financial Summary-Ray McGowan, staff
- b. Window 6-Therm 6 Validation Research P.M.TG-Joe Hayden, Pella
- c. Condensation Resistance Procedure for CMA P.M.TG-Kevin Vilhauer, Milgard
- d. Long Range Research Planning TG-Bipin Shah, WinBuild
- e. Complex VT Rating Research P.M.TG-Ross McCluney, Willie duPont
- f. Gas Permeability Research (IGMA project, NFRC cosponsoring)-Werner Lichtenberger, Truseal
- g. Ventilation Rating TG-Ray Garries, Jeld-Wen
- h. Daylighting Potential Rating TG-Roger LeBrun, Velux;

6. Unfinished Business

- a. RFP ballot: *Research and Coordination to Develop an ASTM Energy Performance Durability Test* (US DOE, Marc LaFrance)
- b. RFP Ballot: *Spandrel System Performance Validation Study RFP* (Catherine Best, Benson Industries; Charlie Curcija, LBNL)
- c. RFP ballot: *Develop a Method for Evaluating Thermal Stresses in Insulating Glass RFP* (Valerie Block, Dupont Glass Laminating Solutions)
- d. RFP ballot: *Research and Coordination to Upgrade ASTM 2190 for IGU Durability Testing RFP* (US DOE, Marc LaFrance)

7. New Business

8. Adjourn



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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



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

Research Subcommittee

Tuesday, November 8, 2010

Block Period: 7:00 a.m. – 3:00 p.m.

Chair: Bipin Shah, WinBuild, Inc.

Vice Chair: Peter Lyon, Peter Lyons & Associates

-
1. **Chair Bipin Shah (WinBuild, Inc.) called the meeting to order at 7:27 a.m..**
 2. **John Lewis, NFRC staff appointed recording secretary.**
 3. **Reports**
 - a. Research Project Status and Financial Summary - Ray McGowan, staff provided an update report indicating ample funding for existing project, but a potential shortfall if several new research projects are undertaken.
 - b. Long Range Research Planning TG – Chair Shah reported the TG met to categorize all the RFPs and summary pages listed below.
 - c. TDD U-factor Rating Research p.m.TG-Dave DeBlock, ODL. Final report has been submitted to NFRC staff.
 - d. Window 6-Therm 6 Validation Research p.m.TG - Joe Hayden (Pella Corporation) provided an update, and noted discrepancies uncovered at the testing laboratory have been addressed. A webinar, scheduled for late January, to review the results. Willie du Pont (Sunergy) provided additional detail on status of the comparison of the test results and the simulation results and the project in general. Motion to extend project to Spring 2011 meeting: Hayden / De Block. Passed 48-1.
 - e. Condensation Resistance Procedure for CMA p.m.TG-Kevin Vilhauer (Milgard) provided an update on the project. Charlie Curcija also reported, and noted inconsistencies were discovered in the data, and these inconsistencies were preventing full analysis; the problematic THERM files are being reviewed. Motion to extend to Spring 2011 meeting. K Vilhauer / J Hayden. Passed 46-0.
 - f. Complex VT Rating Research p.m.TG – R. McCluney, W. duPont. R. McCluney advised the project is essentially finished; Christian Kohler (LBNL) provided additional information on the results of the research project. R. McCluney stated one more meeting of the p.m.TG will be held to review the results of the project prior to the Spring 2011. Chair Shah request that this report be provided to staff so that it can be posted on the website.
 - g. Gas Permeability Research (IGMA project, NFRC cosponsoring)-Werner Lichtenberger, Truseal provided an update; still issues with getting reproducible results from the procedure. IGMAC will be discussing the next steps, the project may be terminated.
 - h. Ventilation Rating TG-Ray Garries, Jeld-Wen provided an update. Scope has been developed and confirmed. Vent square area is the primary emphasis at this juncture. Defining screen reduction factors has yet to be resolved; the task group will begin working on a draft of the document for balloting. A phone conference call will be held in approximately 3 weeks.
 - i. Daylighting Rating TG-Roger LeBrun, VELUX provided a report and noted the Phase I scope is in question, and questioned if the task group will be able to proceed; the task group is looking for guidance. R. McCluney stated that the Phase I rating may be oversimplified and suggested a conference call in an attempt to work through the issues. Chair Shah noted that Phase I was intended to be a simple procedure and Phase II will be more comprehensive procedure.
 4. **Unfinished Business**



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a. RFPs

Develop Improved Algorithms for Improving Accuracy of CMA Methodology RFP-ballot. Proponent: Dr. Charlie Curcija, LBNL (long range priority: improve existing procedures, priority A). Charlie Curcija provided a summary of the project, and noted that the intent is *not* to validate the CMA process through physical testing, but to reduce the variance between ratings obtained with CMAST and those obtained with standard simulation. Motion to find AAMA negative non-persuasive; M. Thoman / T. Culp. Motion passed 27 – 6.

Jeld-Wen negative withdrawn, covered by prior action

AMSCO negative withdrawn, covered by prior action

Pella negative withdrawn, covered by prior action

The Edgetech A/C was reviewed, and spoke in support of the project.

The Marvin A/C was reviewed, addressed by prior action.

The Sun Pine was reviewed, addressed by prior action.

The TRACO A/C was addressed by prior action.

Motion to approve RFP, form a TG and move it forward to R&T Committee. S. Kumar / M. McDonald. Motion passed 30 – 6.

Members for the TG: T Culp, C Curcija; Chair Shah asked for other volunteers. T. Culp will be the chair of the TG.

b. Tubular Daylighting Device VT Rating RFP-ballot. Proponent: TDD VT Rating Task Group (long range priority: ensure all products can be rated: priority A)

Ballot negatives were reviewed; the Architectural Testing, Inc. negative was discussed; Mike Thoman's major concern; he maintains that it is unclear as to the scope. Motion to find the ATI negative persuasive and substantive and send the RFP back to task group. M. McDonald / S. Strawn. Motion passed 27 - 14. Chair Shah asked that the concerned individuals provide input to the TG so this can be resubmitted and approved in the future.

NCTL A/C was withdrawn

Entech negative was withdrawn.

c. Fenestration Illumination Measurement Standard Summary Page Ballot (long range priority: new rating, A priority) Proponent: Dr. Ross McCluney, Sunpine Consulting.

The Entech negative was withdrawn.

The LBNL negative was withdrawn.

Requests for funding support from industry as stated in the numerous A/C were considered, and it was agreed that this point will be included in the RFP.

The Pella A/C regarding project duration was reviewed, and Joe Hayden suggests that this is more than a one-year project.

The Solatube A/C was reviewed; Chair Shah suggested that efforts are not being duplicated with the national labs as we move forward with the RFP.

The Sunergy A/C was reviewed.

The VELUX A/C was reviewed.

The Entech A/C was withdrawn.



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Motion to approve and prepare an RFP. J. Hayden /, withdrawn. Decision was to turn this into a series of one-pagers.

Motion to approve ballot and accept the concept discussed of developing additional summary pages. Hayden / McCluney. Passed 35 – 0.

- d. Develop Methodology for Solar-Optical Simulation of Non Planar Glazing Systems Summary Page ballot (long range priority: new rating procedure, priority A) Proponent: Dr. Charlie Curcija, LBNL.

The Entech negative was withdrawn.

The Solatube negative was discussed. J. Hayden / D. De Block moved to find non-persuasive. Motion passed 33 – 7.

The A/C (AAMA a.m.SCO, Jeld-Wen, Pella) regarding funding were addressed by prior action.

Motion to develop an RFP: D. De Block / M. McDonald, passed 32 – 1.

5. New Business

- a. Attachment Summary Page Ballots

- i. Evaluate Impact of Specific Conditions on Attached Awning Performance Summary page ballot (long range priority: new ratings, A priority) Proponent: John Gant, Glen Raven

The 3 ballot negatives were reviewed.

The Entech negative was withdrawn.

The Sunergy negative was withdrawn.

The WESTLab negative; McCluney / T. Culp moved to find non-persuasive. Motion passed 27 – 1.

The A/C related to funding (AMSCO, AAMA, Jeld-Wen, Pella) addressed by prior action.

Motion, R McCluney / J Gant to prepare corresponding RFP, passed 34 – 0.

- ii. Attachments Performance Strategic Plan Summary page ballot (long range priority: new rating, A priority) Proponent: Mudit Saxena, Heschong Mahone Group

The seven (7) negative ballot responses were addressed.

Pella negative. J Hayden / S Strawn. To find persuasive and substantive and to move to RAM, passed 41 – 4.

WESTLab negative; to find persuasive; J Hayden / B Schultz passed 37 – 4.

Jeld-Wen negative withdrawn by previous action.

Hunter Douglas negative was withdrawn.

Entech negative was withdrawn.

ALI negative was withdrawn based on prior action,

Andersen negative was withdrawn.

The A/Cs were reviewed; Sunergy, NCTL, MechoShade, AAMA. These comments are to be considered when the proposal is presented to the RAM Committee.



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- b. Tubular Daylighting Devices - Research Project to Develop Updated Modeling Procedure Summary Page ballot (long range priority: ensure all product can be rated, priority A) Proponent: Dr. Charlie Curcija, LBNL

The Entech negative was reviewed; L. Condit / R LeBrun moved to find second sentence (“Hybrid”) persuasive and editorial. Motion passed 33 – 1.

The A/Cs were reviewed. Funding (ASE, AAMA, a.m.SCO, Jeld-Wen, Pella) reviewed and it was agreed to be sure the RFP included such wording.

The ATI A/C on associated costs was reviewed.

The Solatube A/C was reviewed.

The Sunergy A/C was reviewed; W. du Pont stated that LBNL (S. Selkowitz) had stated earlier that LBNL would not bid on RFPs.

Motion to approve the summary page and develop a corresponding RFP (and include “Hybrid” products) by D. De Block / L. Condit passed 46 – 0.

- c. Long Term Energy Performance Related Summary Pages (all on long range priority: Develop New Rating Procedures, priority C) *Note: these summary page agenda items C.i.ii,iii. were not balloted but circulated directly to membership for consideration as the NFRC 703-Research Program Manual allows.*

- i. Thermal Stress on IGs Research-Summary Page Proponent: Valerie Block, du Pont.

The summary page was reviewed. Motion to approve the summary page and develop the corresponding RFP. Motion K. Brenden / U. Sowell passed 42 – 0.

- ii. Upgrade ASTM E 2190 for IGU Durability Testing-Summary Page Proponent: Marc LaFrance, DOE

The summary page was reviewed. Motion to disapprove the summary page. Motion by K. Brenden (proxy, IGMA) / J. Baker failed 7 – 38.

Motion to approve the summary page and develop a corresponding RFP and coordinate these activities with the ASTM E 06 working group. Motion by C. Kohler / W. du Pont passed 51 - 2.

- iii. Research and Coordination to Develop an ASTM Energy Performance Durability Test-Summary Page Proponent: Marc LaFrance, DOE

The summary page was reviewed. Motion to approve the summary page and develop the corresponding RFP. Motion C. Kohler / S. Kumar passed 36 – 13.

- d. CMA summary pages (all not listed on long range priority list):

- i. CMAST Feedback on Usability Study summary page ballot Proponent: Mudit Saxena, Heschong Mahone Group

The eight (8) ballot negatives were addressed.

The Associated Laboratories, Inc. negative: Motion to find negative persuasive and substantive by M. Thoman / M. McDonald, passed 27 – 6.

The Entech negative was withdrawn.

A straw poll was taken to obtain feedback on the sentiment of the membership as to if this should be modified and resubmitted to RAM Committee passed 19 – 0

The Jeld-Wen and all remaining negatives were not addressed; Chair Shah requests that MHG consider the points made as the summary page for RAM is developed.



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- ii. CMA Impact on HVAC Sizing Study Summary Page ballot. Proponent: Mudit Saxena, Heschong Mahone Group

The NCTL negative; Motion to find the negative non-persuasive by T. Culp / J. Hayden was tied at 17 – 17. Motion fails.

Motion to find NCTL negative persuasive and substantive; J. Krahn / S. Johnson passed 26 – 14.

The remaining negatives were quickly reviewed but no motions were taken as the prior motion defeats the ballot summary.

- iii. CMAST Parametric Targeting Tool- Summary Page ballot. Proponent: Mudit Saxena, Heschong Mahone Group

The seven (7) negatives were addressed;

The AAMA negative: Motion to find the negative persuasive by K. Brenden / J. Hayden passed 32 -1.

The remaining negatives were quickly reviewed and were either addressed by prior action or withdrawn.

Chair Shah suggested HMG may choose to resubmit this Summary Sheet at the Software SC.

6. Adjourn 1:52 p.m.



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Meeting Notes:

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



Optical 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: *Sneh Kumar, TRACO*

Vice Chair: *TBD*

1. Call to Order

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

2. Appoint Recording Secretary

3. Approve Minutes from November 2011 meeting in San Francisco, CA

4. Review and approve agenda

5. Reports

- a. NFRC 302 TG-Jim Larsen
- b. Attachment optical properties TG - Tom Morrissey
- c. Optical Properties Priorities TG – Mike Rubin
- d. Non-planar Simulation TG - Charlie Curcija
- e. Daylighting Rating TG-Mudit Saxena, Roger LeBrun
- f. ISO activity-Charlie Curcija

6. Unfinished Business

7. New Business

- a. Appoint Vice Chair

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.



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

Optical Properties Subcommittee

Tuesday, November 9, 2010

Block Period: 7:00 a.m. – 3:00 p.m.

Chair: Sneh Kumar, Traco

-
1. **The Chair Sneh Kumar called the meeting to order at 1:54 p.m.**
 2. **The chair appointed John Lewis, NFRC Staff, recording secretary**
 3. **Reports**
 - a. NFRC 302 TG - Jim Larsen was not present; no report was provided.
 - b. Attachment optical properties TG - Tom Morrissey provided an update of the task group's activities.
 - c. Non-planar Simulation TG - Charlie Curcija provided an update of the task group's activities.
 - d. Daylighting Rating TG - Mudit Saxena, Roger LeBrun. M. Saxena provided a *PowerPoint* presentation with a summary of the task group's activities.
 - e. ISO activity – Mike Rubin provided an update of the activity associated with various ISO standards and committees.
 - f. Optical Properties Priorities TG – Mike Rubin stated the group was originally chaired by Carlos McIntyre; Mike Rubin stated he provided a list of priorities to the task group, but received no feedback. M. Rubin is not clear as to future activities of this group and its influence.

Chair Kumar stated NFRC is in need of participation and leadership in the optical properties area.

4. **New Business**
 - a. NFRC 302 addendum ballot. NFRC CEO Jim Benney provided an overview on the activities leading to the development of the draft document that was balloted. Mr. Benney stated he was willing to withdraw the ballot with the understanding that three areas still need to be addressed: measurement tolerance, data review, and challenge procedure.

Chair Kumar withdrew the ballot based on it not being developed and submitted through the task group.

Chair Kumar stated it was his desire to form a new technical task group or task groups.
5. **Adjourn.** There being no further new business, the subcommittee adjourned at 2:21 p.m.

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.



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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. Call to Order

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

2. Appoint Recording Secretary

3. Roll Call, Quorum Establishment

4. Approve Minutes from November 2011 meeting in San Francisco, CA

5. Review and approve agenda

6. Reports

- a. Research SC-Bipin Shah, WinBuild
- b. Optical Properties SC-Sneh Kumar, Traco
- c. Thermophysical Properties SC-Dr. Charlie Curcija, LBNL

7. Unfinished Business

8. New Business

9. Adjourn

SCOPE

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

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

This Committee reports to the Board

NFRC Staff Liaison: Ray McGowan, Senior Program Manager, rmcgowan@nfrc.org



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

Research and Technology Committee

Tuesday, November 9, 2010

Block Period: 7:00 a.m. – 3:00 p.m.

Chair: *Werner Lichtenberger, Truseal Technologies*

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

1. Chair Werner Lichtenberger called the meeting to order at 7:02 a.m.
 2. Appoint Recording Secretary (John Lewis, NFRC Staff)
 3. Roll call established a quorum
 4. Reports
 - a. Research SC-Bipin Shah provided an update; one RFP approved, Seven summary pages approved.
 - o Motion to approve extension on W6/T6 to Spring 2011 meeting; B. Shah / J. Hayden; passed 43 – 0.
 - o Motion to approve extension on CR to Spring 2011 meeting; B. Shah / K. Vilhauer; passed 41 – 1.
 - o WinBuild-Bipin Shah moved and Milgard-Kevin Vilhauer seconded to move to authorize CMA Improved Algorithm RFP to be released for bid; motion passed 37 – 4.
 - o Motion to authorize final payment on TDD Project to subcontractor B. Shah / D. De Block passed 33 – 1.
 - b. Optical Properties SC-Sneh Kumar provided the SC report; no action items for the Committee.
 - c. Thermophysical Properties SC-Charlie Curcija provided the SC report; no action items.
 5. New Business
 - a. Window Life Cycle Cost Analysis (LCA) Research presentation-Kerry Haglund, University of Minnesota; K. Haglund provided a *PowerPoint* presentation on the UM LCA project.
Motion to approve \$7,500 funding for UM LCA S. Johnson / J Krahn passed 34 – 3.
 - b. NFRC liaison for future research.
Ross McCluney suggested that NFRC develop a list of liaisons to represent NFRC's interests at various national labs, affiliated associations, and universities. Chair Lichtenberger stated this would be forwarded to long range planning committee.
 6. Adjourned at 3:17 p.m.
-



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Research & Technology Committee Roster*

As of 3/15/2011

First Name	Last Name	Company Name
Neal	Humphrey	Alliance to Save Energy
Gilbert	Riopel	Air-Ins
Ken	Brenden	American Architectural Manufacturers Association (AAMA)
Fred	Clark	Alkenz USA
Joe	Jonely	AMSCO Windows
Steve	Johnson	Anderson Corporation
Michael J.	Thoman	Architectural Testing, Inc.
Brad	Schultz	Associated Laboratories, Inc.
Steve	Harp	Associated Materials, Inc.
Doug	Harden	Atrium Companies Inc.
Travis	Windleharth	Baekert Specialty Film LLC
Thomas	Culp	Birch Point Consulting LLC
Jim	Larsen	Cardinal Industries
Nelson	Pena	California Energy Commission
Kerry	Haglund	Center for Sustainable Building Research
Rik	Vonderhaar	Champion Window
John	Westerfield	Crystallite
Clay	Stevenson	Entech Solar
John	Gant	Glen Raven, Inc.
Tim	Singel	Guardian Industries Corp.
Robert	Simons	Hunter Douglas, Inc.
Lucas	Turner	Hurricane Test Lab
Margaret	Webb	Insulating Glass Manufacturers Alliance (IGMA)
Darrell	Smith	International Window Film Association (IWFA)
Steve	Strawn	Jeld-Wen, Inc.
Sue	Schreiber	Kolbe and Kolbe
Christian	Kohler	Lawrence Berkeley National Laboratory (LBNL)
Andy	Hayes	Madico
James C.	Krahn	Marvin Windows & Doors
Steve	Hebeisen	Mecho Shade Corporation
Kevin	Vilhauer	Milgard Manufacturing
Gregg	Vincent	Natural Light Energy Systems
Marles	McDonald	National Certified Testing Laboratories - NW
Dennis	Northcutt	N T Window



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First Name	Last Name	Company Name
Paris	Waddill	Nysan Solar Control
David A.	De Block	ODL Incorporated
Michele	Sahlin	Professional Awnings Manufacturers Association (PAMA)
Joseph	Hayden	Pella Corporation
Andrew	Caldwell	Phifer Incorporated
David L.	Duly	Pilkington North America, Inc.
Scott	Widmer	ProVia Door, Inc.
Thom	Zaremba	Roetzel and Andress
Tina	Jenkins	Simonton Windows
Namrata	Vora	Soladigm
Dan	State	Solatube International, Inc.
Lisa	Winkler	Solutia, Inc.
Edward	Peterson	Stork Twin City Testing
Ross	McCluney	Sun Pine Consulting, Inc.
Steve	Haubert	Sunrise Window
Werner	Lichtenberger	TruSeal Technologies, Inc.
Gena	Webb	Twitchell Corporation
Roger	LeBrun	Velux-America, Inc.
Jeff	Baker	WESTLab
Bipin	Shah	WinBuild, Inc.
John	McFee	Window and Door Manufacturer's Association (WDMA)
Anthony	Cinnamon	Wiss, Janney, Elstner & Associates

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



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Condensation Resistance Subcommittee

Monday, March 28, 2011

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

Chair: Kevin Vilhauer, Milgard Manufacturing, Inc.

Vice Chair: Steve Harp, Associated Materials, Inc.

1. Call to Order

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

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from November 2010 Meeting in San Francisco

5. Reports

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

6. New Business

7. Adjourn

SCOPE

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

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

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



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

Condensation Resistance Subcommittee

Tuesday, November 9, 2010

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

Chair: Kevin Vilhauer, Milgard Manufacturing, Inc.

Vice Chair: Steve Harp, Associated Materials, Inc.

1. Chair called the meeting to order at 4:15 p.m. - antitrust reminder given and reviewed voting requirements
2. S. Hanlon (NFRC Staff) was appointed recording secretary
3. The agenda was reviewed and approved as presented.
4. The minutes from July 2010 meeting (Virtual) were approved as presented.
5. Reports
 - a. AAMA CRF Correlation – Chair reported that C. Curcija has encountered some inconsistencies in the software and will present the findings during the fall meeting.
 - b. CSA Working Group – J. Baker reported that the CSA condensation resistance testing and simulation research will be presented to the CSA technical committee next week. The results of the presentation will be sent to K. Vilhauer for presentation at the Spring meeting.
6. New Business
 - a. None
7. The meeting was adjourned at 4:18 p.m.



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Air Leakage Subcommittee

Monday, March 28, 2011

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

Chair: Chris Nolt, ProVia Door, Inc.

Vice Chair: Tracy Rogers, Edgetech IG, Inc.

1. Call to Order

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

2. Appoint Recording Secretary (NFRC STAFF)

3. Approve Minutes from November 2010 Meeting in San Francisco.

4. Review and approve agenda

5. Reports

- a. None

6. Unfinished Business

- a. None

7. New Business

8. Adjourn

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, LAP Manager * danderson@nfr.org



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

Air Leakage Subcommittee

Tuesday, November 9, 2010

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

Chair: Michael Thoman, Architectural Testing, Inc.

Vice Chair: Tracy Rogers, Edgetech IG, Inc.

-
1. M. Thoman called the meeting to order at 4:12 p.m. - antitrust reminder given and reviewed voting requirements
 2. S. Hanlon (NFRC Staff) was appointed recording secretary
 3. The agenda was reviewed and approved as presented.
 4. The minutes from July 2010 (Virtual) were approved as presented.
 5. Reports
 - a. Air Leakage Task Group – No action to report
 6. Unfinished Business
 - a. None
 7. New Business
 - a. M. Thoman is resigning as SC chair and will bring forward to the Technical Committee recommending C. Nolt as chair.
 8. The meeting was adjourned at 4:15 p.m.



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Annual Energy Performance Subcommittee

Monday, March 28, 2011

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

Chair: Tom Culp, BirchPoint Consulting

Vice Chair: James Larsen, Cardinal Glass, Inc.

1. Call to Order

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

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from November 2010 Meeting in San Francisco.

5. Reports

- a. International Activities
- b. Commercial AEP Task Group

6. Unfinished Business

7. New Business

- a. Attachments in NFRC 901

8. Adjourn

SCOPE

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

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

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



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

Annual Energy Performance Subcommittee

Tuesday, November 9, 2010

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

Chair: Tom Culp, BirchPoint Consulting

Vice Chair: James Larsen, Cardinal Glass, Inc.

-
1. Chair called the meeting to order at 3:54 p.m. - antitrust reminder given and reviewed voting requirements
 2. S. Hanlon (NFRC Staff) was appointed recording secretary
 3. The agenda was reviewed and approved as presented.
 4. The minutes from July 2010 meeting (Virtual) were approved as presented.
 5. Reports
 - a. International Activities
 - i. ISO 18292 – T. Culp reported that the document is being converted to French and is close to final approval; and provided a presentation comparing ISO 18292 and NFRC 901.
 - ii. P. Lyons reported that Australian Star rating AEP has about 90,000 products and the rating method for the products from 0 to 10 (perfect).
 - b. Commercial AEP TG
 - i. T. Culp reported that the TG has a list but no chair and thus has not met. M. Bhandari agreed to chair TG. TG is requested to develop a scope.
 6. Unfinished Business
 - a. None
 7. New Business
 - a. M. Cienian requested that upon approval of the NFRC 100A and NFRC 200A technical documents, the attachment industry is willing to partake to include attachments into the NFRC 901. A ballot may be prepared for the next meeting and the TG will be contacted by T. Culp as necessary.
 8. The meeting was adjourned at 4:12 p.m.



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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: Mahabir Bhandari, Carli, Inc.

1. Call to Order

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

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from November 2010 Meeting in San Francisco

5. Reports

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

6. Unfinished Business

- a. None

7. New Business

- a. NFRC 102 Garage Door Ballot
- b. NFRC 100 Garage Door Ballot
- c. NFRC 100 Figures Ballot
- d. NFRC 100 Product Grouping Ballot
- e. NFRC 100 Sightline Ballot

8. Adjourn

SCOPE

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

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

Committee Chain: * Technical Committee * U-factor Subcommittee
NFRC Staff: Dennis Anderson, Laboratory Accreditation Program Manager * danderson@nfr.org



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

U-factor Subcommittee

Wednesday, November 10, 2010

Under Technical Committee Block: 7:30 a.m. – 11:30 a.m.*

Chair: Michael Thoman, Architectural Testing, Inc.

Vice Chair: Mahabir Bhandari, Carli, Inc.

1. Chair called the meeting to order at 4:59 p.m.- antitrust reminder given and reviewed voting requirements
2. S. Hanlon (NFRC Staff) was appointed recording secretary
3. The agenda was reviewed and approved as presented.
4. The minutes from July 2010 meeting (Virtual) were approved as presented.
5. Reports
 - a. Tubular Daylighting Devices Task Group – D. DeBlock reported that the TG is working on VT as stated in R & T.
 - b. Garage / Rolling Door Task Group – J. Hetzel reported that there are no action items and that data from research on including hardware during testing was reviewed and that a ballot may be forthcoming. The next ballot will include results from the previous ballot. The TG concluded that there is not enough data to move the garage door to a test only product and recommends refining the simulation process to make it more accurate. DASMA will be conducting research projects on conductivity values of insulation materials and will review ISO documents.
 - c. Door Task Group – D. DeBlock reported that the TG is interested in modifying the door matrix label and door modeling simulation techniques. It was recommended to provide the information regarding the simulation concerns to the SC chair so that information can be forwarded to the appropriate TGs. It was also recommended to work with the PCP Review TG for any labeling concerns.
 - d. Testing Laboratory Task Group –M. Thoman reported that the TG has presented three ballots for this meeting.
 - e. Skylight Task Group – R. LeBrun nothing to report.
 - f. Sightline Tolerance Task Group – J. Hayden provided a status of the TG work and reported that at the SHGC SC J. Larsen will provide a presentation of data on the concept of “grouping” products based on sightlines / vision area.
6. Unfinished Business
 - a. None
7. New Business
 - a. NFRC 102 Section 9 & Table A5-1 Ballot
Architectural Testing; M. Thoman (Table A5-1) - APC
MOTION: K. Brenden / D. DeBlock moved to find the motion persuasive and editorial and remove the table from 102. Motion passes by unanimous voice vote.

MOTION: D. DeBlock / J. Hayden move the ballot as edited forward to Technical for approval. Motion passes by unanimous voice vote.



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- b. NFRC 102 Wind Velocity Ballot
Hunter Douglas: M. Cienian (Response 001) – NEG
Withdrawn

MOTION: B. Schultz / D. DeBlock move the ballot, as edited, forward to Technical for approval. Motion passes by unanimous voice vote.

- c. NFRC 102 Frequency Requirements Ballot
Sunergy: W. duPont (Section 6.1 (A), Table 6-1) – NEG
Withdrawn

MOTION: W. duPont / D. DeBlock move to replace the words “Test sample” with “Surround Panel” in the Exterior Velocity Mapping section in the Calibration Frequency ballot. This change was considered editorial. Motion passes by unanimous voice vote.

Sunergy: W. duPont (Section 6.1 (A), Table 6-1) – NEG

MOTION: M. McDonald / D. DeBlock move to find the negative non-persuasive. Motion passes: 25-2.

SunPine Consulting: R. McCluney (Section 6.1 (A)) – AC

No action necessary – clarification was provided.

MOTION: G. Riopel / B. Schultz move the ballot, as edited, forward to Technical for approval. Motion passes by voice vote.

- d. M. Thoman informed the membership that the W5 / T5 software has an interior film coefficient issue with 20 degree tilted products from the 15099 algorithms. The recommendation is that W6 / T6 software has been corrected and that the error in W5/T5 is conservative and that the “new” ratings will perform better than the W5/T5 rated products. There was no issue with the products that are simulated at the 90 degree. Therefore, LBNL will provide NFRC staff with a file to submit to simulators to be used in the current W5/T5 approved software.

8. The meeting was adjourned at 5:48 p.m.



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Solar Heat Gain Coefficient 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. Call to Order

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

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from November 2010 Meeting in San Francisco

5. Reports

- a. Garage Door SHGC Task Group – Joe Hetzel
- b. TDD SHGC Task Group – Les Condit
- c. SHGC Task Group – Brad Schultz
- d. Sightline Tolerance TG – J Hayden

6. Unfinished Business

- a. None

7. New Business

- a. NFRC 201 Reporting Ballot
- b. NFRC 200 Sections 4.5 & 4.7 Ballot
- c. NFRC 200 Sightline Ballot

8. Adjourn

SCOPE

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

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

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



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

Solar Heat Gain Coefficient Subcommittee

Wednesday, November 10, 2010

Under Technical Committee Block: 7:30 a.m. – 11:30 a.m.*

Chair: Bipin Shah, WinBuild

Vice Chair: Brad Schultz, Associated Laboratories, Inc.

-
1. Chair called the meeting to order at 8:34 a.m. - antitrust reminder given and reviewed voting requirements
 2. S. Hanlon (NFRC Staff) was appointed recording secretary
 3. The agenda was revised to add discussion on VT for complex glazing under New Business and approved.
 4. The minutes from July 2010 meeting (Virtual) were approved as presented.
 5. Reports
 - a. Garage Door SHGC Task Group – J. Hetzel reported that the TG is reviewing comments from previous ballots. There is also a DASMA research project to back calculate the SHGC of the product and the results were very promising. The research could result in a ballot for a SHGC calculation on insulated garage doors with glazings.
 - b. TDD SHGC Task Group – L. Condit reported a ballot will be discussed at this meeting for NFRC 201.
 - c. SHGC Task Group – B. Schultz reported that there are no action items.
 - d. Sightline Tolerance TG – J. Hayden reported that the activity of the TG is to investigate the ability to rate different sightlines within the same product. J. Larsen provided a presentation containing data that demonstrates the result of modifying the rating values at a 0.01 and the impact in percentage to the Whole Building Energy Consumption. The TG used these results to recommend the use of a 0.04 Total SHGC range to group (optional) sightlines, which will result in a no greater difference of 2% in whole building performance and requested that the membership agree with this concept to move forward and prepare ballots for the Spring meeting. The TG received overwhelming support to move in this direction and requested those fundamentally opposed to this path, please contact J. Hayden or M. Thoman. J. Baker recommended that discussing this with Energy Star Canada about proposed changes.
 6. Unfinished Business
 - a. None
 7. New Business
 - a. NFRC 201 TDD Ballot
 - VELUX: R. LeBrun (Annex G1) – NEG #1
MOTION: R. LeBrun / D. DeBlock move to find the negative persuasive and editorial. Motion passes by unanimous voice vote.
 - VELUX: R. LeBrun (Annex G1) – NEG #2
MOTION: M. Thoman / R. LeBrun move to find the negative persuasive and editorial. Motion passes by unanimous voice vote.
 - VELUX: R. LeBrun (Annex G1) – NEG #3



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MOTION: R. LeBrun / D. DeBlock move to find the negative substantive and persuasive. Motion fails: 11-16.

MOTION: M. Thoman / L. Condit move to find the negative non-germane and send to the TDD and TDD SHGC TGs to be re-evaluated and address changes in 100, 200, and 201 and submit ballots at next meeting. Motion passes by unanimous voice vote.

VELUX: R. LeBrun (Annex G2) – NEG #2

Withdrawn

Solatube: D. State (Annex G1) – APC

Address at TG

Hunter Douglas: M. Cienian (Annex G1) – APC

Address at TG

Architectural Testing: M. Thoman (Annex G1) – APC

Address at TG

SunPine Consulting: R. McCluney (Annex G1) – APC

Address at TG

MOTION: L. Condit / D. DeBlock move forward the 201 ballot as edited to technical committee with recommendation to implement upon publication. Motion passes by unanimous voice vote.

- b. VT language for complex glazings
 - i. D. DeBlock reported that the TDD TG is working on converting the complex VT testing data into a VT rating and invites those interested to contact staff for inclusion.
 - c. M. Thoman recommended that we form a TG or SC regarding the different daylighting issues that are being discussed at these meetings. The chair will take under advisement.
8. The meeting was adjourned at 9:48 a.m.



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Software Subcommittee

Tuesday, March 29, 2011

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

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

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

1. Call to Order

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

2. Appoint Recording Secretary (NFRC Staff)

3. Review and approve agenda

4. Approve Minutes from November 2010 Meeting in San Francisco.

5. Reports

- a. WINDOW 6/ THERM 6 Approval TG – Joe Hayden
- b. CMAST Approval TG – Mahabir Bhandari

6. Unfinished Business

- a. None

7. New Business

8. Adjourn

SCOPE

The scope of the Software Subcommittee is to:

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

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

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

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



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NFRC 2011 Spring Committee Week Meeting
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*****DRAFT MINUTES*****
Software Subcommittee
Tuesday, November 9, 2010

Under Technical Committee Block: 3:00 p.m. – 6:00 p.m.*
Chair: *Brian Crooks, Cardinal Glass Industries, Inc.*
Vice Chair: *Jim Krahn, Marvin Windows & Doors*

1. Chair called the meeting to order at 3:27 p.m.- antitrust reminder given and reviewed voting requirements
2. S. Hanlon (NFRC Staff) was appointed recording secretary
3. The agenda was reviewed and approved as presented.
4. The minutes from July 2010 meeting (Virtual) were approved as presented.
5. Reports
 - a. Window 6 / Therm 6 – J. Hayden provided a summary of the W6/T6 software status as regards to the manual, software development, training of the simulators, the relationship to the W6/T6 to be used for CMAST, and the sunset deadline of W5/T5. Upon completion of the research, the TG will continue on a complex glazing approach.

MOTION: J. Hayden / B. Shah recommend to the Board to move the sunset date of W5/T5 to July 1, 2011. Motion passes by unanimous voice vote.
 - b. CMAST Approval TG – no action to report. M. Bhandari has agreed to be the TG chair.
6. New Business
 - a. M. Saxena bought forth from the Research SC the one page summary to develop a parametric targeting tool which was sent to the Software SC for discussion. The recommendation from the SC is to be this forward to the CMA Technical Subcommittee for review.
7. Meeting adjourned at 3:53 p.m.



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CMA Subcommittee - Technical

Tuesday, March 29, 2011

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

Chair: *Sneh Kumar, TRACO*

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

1. Call to Order

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

2. Appoint Recording Secretary (NFRC STAFF)

3. Roll call / Establish quorum

4. Approve Minutes from November 2010 Meeting in San Francisco.

5. Review and approve agenda

6. Reports

- a. CMA Technical Task Group – (TBD)
- b. CMA Complex Product Rating Task Group – (S. Kumar)

7. New Business

- a. New Chair for CMA Technical Task Group

8. Adjourn

SCOPE

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

Committee Chain: * Technical Committee * CMA Subcommittee
NFRC Staff Liaison: Dennis Anderson, LAP Manager * danderson@nfr.org



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

Component Modeling Approach (CMA) Technical Subcommittee

Wednesday, November 10, 2010

*Technical Committee Block: * 7:30 a.m. – 11:30 a.m.*

Co-Chairs: Gary Curtis, ECOS Consulting, Inc.; Sneh Kumar, TRACO

1. The chair, Sneh Kumar, called the meeting to order at 10 a.m.
 2. Ray McGowan appointed recording secretary (NFRC Staff)
 3. Approve Minutes from Summer 10 Virtual meeting
 4. Review and approve agenda
 5. Reports
 - a. CMA Technical Task Group —Catherine best reported on potential activities for the TG in the near future.
 - b. CMA complex product Rating Task Group — Sneh Kumar reported no activity.
 6. Unfinished Business
 7. New Business
 - a. NFRC 100 ballot-Spandrel considerations
 - i. WESTLab-Baker moved and NCTL-Marles McDonald seconded to find the WESTLab negative persuasive and substantial. Passed by voice vote.
 - b. NFRC 200 ballot-spandrel considerations
 - i. AAMA-Brenden moved and Enermodal-Mike Barklay seconded to find the Birchpoint Consulting negative persuasive and substantive. Passed by voice vote.
 8. Adjourned at 10.15 a.m.
-

SCOPE

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

**Subcommittees times under each committee block will run consecutively - as time allows, groups listed will go in order - but time/date is not guaranteed.*

Committee Chain: * Technical CommitteeCMA Technical Subcommittee***
NFRC Staff Liaison: John Lewis, Director, New Business Programs * JLewis@nfr.org



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Attachments Subcommittee

Tuesday, March 29, 2011

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

Chair: *Mike Cienian, Hunter Douglas*

Vice Chair: *TBD*

1. Call to Order

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

2. Appoint Recording Secretary (NFRC STAFF)

3. Roll call / Establish quorum

4. Approve Minutes from November 2010 meeting

5. Review and approve agenda

6. Reports

- a. Applied Films Task Group *(Chair: D. Smith)*
- b. Attachments Optical Properties WG *(Chair: T. Morrissey)*
- c. Awnings Task Group *(Chair: J. Gant)*
- d. Base Case Reference Window WG *(Chair: N. Petermann)*
- e. Dynamic Attachments for Swinging Doors TG *(Chair: D. De Block)*
- f. Exterior / Interior Attachments Task Group *(Chair: T. Zaremba / M. Cienian)*
- g. Storm Window Task Group *(Chair: T. Zaremba)*

Note: Attachments Labeling Task Group and Attachments PCP Task Group now report to the NFRC 712 (Attachments) Certification Subcommittee

7. Unfinished Business

- a. Updates on NFRC 100A and NFRC 200A publication
- b. Future addition of Skylight drawings
- c. Future discussion on S. Selkowitz withdrawn Negative

8. New Business

- a. Creation of Storm Door Task Group and approve Scope Statement
- b. Review of Organizational Structure for Technical Attachments Subcommittee
- c. Assignment of New Subcommittee Chair
- d. Review and revise Scope of Subcommittee

9. Adjourn



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SCOPE

The Attachments Subcommittee is responsible for <to be developed>.

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



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

Attachments Subcommittee

Tuesday, November 9, 2010

Technical Committee Block: Tuesday: 3:00 p.m. – 6:00 p.m.

Chair: Michael Cienian, Hunter Douglas

-
1. **The chair called the meeting to order at 4.20 p.m.**
 2. **Ray McGowan (NFRC Staff) appointed recording secretary**
 3. **Reports**
 - a. Dynamic Attachments for Swinging Door TG – D. DeBlock reported no action items.
 - b. Exterior / Interior Attachment TG – T. Zaremba / M. Cienian reported NFRC 100A and 200A balloting discussions took place prior to the meeting to ensure prompt consideration during the meeting.
 - c. Storm Windows TG – T. Zaremba reported no activity.
 - d. Awnings TG – J. Gant reported limited activity.
 - e. Applied Films TG – Darrell Smith reported a request to delay the labeling implementation until fall 2011.
 - f. Attachments PCP TG – T Williamson reported significant activity may begin soon.
 - g. Attachments Labeling TG – T. Morrissey reported continuing development.
 - h. Attachments Optical Properties TG – T.Morrissey reported initial activity continues towards optical property measurement with LBNL.
 4. **Unfinished Business**
 - a. Update on Presentation to Membership on Attachments Testing – M.Cienian, R. Simons reported on a successful presentation to the membership via webinar in September 2010.
 5. **New Business**
 - a. Review current Ballot NFRC 100A
 - i. NCTL negative withdrawn.
 - ii. Birchpoint Consulting moved and Pella seconded to find the Birchpoint Consulting negative persuasive and editorial. Passed by unanimous voice vote.
 - iii. Newell-Terry Williamson moved and ODL-Dave De Block seconded to move the NFRC 100A ballot forward to the Technical committee. 56-0.
 - iv. Newell-Terry Williamson moved and ODL-Dave De Block seconded to move the entire NFRC 100A document forward to Technical Committee. Passed 58-0.
 - b. Review current Ballot NFRC 200A
 - i. Carli negative withdrawn
 - ii. NCTL negative withdrawn
 - iii. Novell-Terry Williamson moved and ODL-Dave De Block seconded to move the NFRC 200A, as edited, and the entire document, to the Technical Committee. Passed 58-0.
 - c. Review current Ballot NFRC 100A Skylights
 - i. Newell moved and ODL seconded to move the NFRC 100A skylight ballot forward to Technical committee. Passed by unanimous voice vote.
 6. **Adjourned at 4.50 p.m.**
-

Committee Chain: Technical Committee * *Attachments Subcommittee*
Staff Liaison: John Lewis, Director, New Business Programs* jlewis@nfr.org



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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. Call to Order

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

2. Appoint Recording Secretary (NFRC STAFF)

3. Roll call / Establish quorum

4. Approve Minutes from November 2010 meeting

5. Review and approve agenda

6. Reports

- a. Software Subcommittee (B. Crooks, J. Krahn)
- b. Attachment Subcommittee (M. Cienian, D. DeBlock)
- c. Annual Energy Performance Subcommittee (T. Culp, J. Larsen)
- d. Condensation Resistance Subcommittee (K. Vilhauer, S. Harp)
- e. Air Leakage (C. Nolt / T. Rogers)
- f. U-factor Subcommittee (M. Thoman, M. Bhandari)
- g. Solar Heat Gain Subcommittee (B. Shah / B. Schultz)
- h. Component Modeling Approach Subcommittee (S. Kumar / G. Curtis)

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*



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*****DRAFT MINUTES*****
Technical Committee

Block Period: Tuesday, November 9, 2010 3:00 p.m. – 6:00 p.m.
Continued – Wednesday, November 10, 2010 8:30 a.m. – 11:30 a.m.
Chair: Jeff Baker, WESTLab, Inc.
Vice Chair: Steve Johnson, Andersen Window Corporation

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 Summer 2010 Virtual Meeting**
6. **Reports**
 - a. Validation Testing Task Group (S. Kumar) – No action to report. TG to be disbanded since it is not active and a new TG will be formed in the future if needed.
 - b. Software Subcommittee (B. Crooks, J. Krahn) – One action to report to Board as follows:
MOTION: B. Crooks / J. Hayden to move forward to the Board of Directors extending the sunset date of W5/T5 to July 1, 2011. Motion passes by unanimous voice vote.
 - c. Attachment Subcommittee (M. Cienian, D. DeBlock) –
Applied Film Task Group – Reported this Task Group will bring forward a motion extending date of APD.
PCP Task Group – Reported this Task Group has a new Chair – Mr. Chuck Anderson of Newell will replace Teresa Williamson of Newell.
SC had two motions to bring forward to the Board:
MOTION #1: M. Cienian / D. De Block in recognition of the Subcommittee unanimous positive vote of 56-0, we move that the NFRC100A document, as edited and in its entirety, be forwarded to the Board for approval and publication as a 2011 document. Motion passes by unanimous voice vote.
MOTION#2: M. Cienian / T. Williamson in recognition of the Subcommittee unanimous positive vote of 58-0, we move that the NFRC200A document, as edited and in its entirety, be forwarded to the Board for approval and publication as a 2011 document. Motion passes by unanimous voice vote.
 - d. Annual Energy Performance Subcommittee (T. Culp, J. Larsen) – No report presented.
 - e. Condensation Resistance Subcommittee (K. Vilhauer, S. Harp) – K. Vilhauer had nothing to report.
 - f. Air Leakage (M. Thoman, T. Rogers) – M. Thoman had no action items. He reported that he will be stepping down as chair of this SC and Chris Nolt of Provia Door has volunteered for this position. Jeff Baker will bring forward to the Board for approval.

- g. U-factor Subcommittee (M. Thoman, M. Bhandari) – Reported that three ballots were approved at SC and is presented as one motion as follows:
- MOTION:** M. Thoman / D. De Block moved to approve the three ballots pertaining to NFRC 102, as edited at U-Factor SC, and move them forward to the Board for implementation upon publication.
- h. Solar Heat Gain Subcommittee (B. Shah, B. Schultz) –
- Chair reported that a SHGC TG was requested to be formed to review the entire NFRC 200 document for omissions, additions, edits. SC will be looking for a chair and participants.
- MOTION:** B. Shah / D. De Block moved to approve the NFRC 201 as presented by the SHGC SC and move forward to the Board for implementation upon publication.
- i. Component Modeling Approach Subcommittee (S. Kumar, G. Curtis) – S. Kumar reported no action.
- J. Hayden asked for status of the Parametric Targeting Tool Software RFP and Jeff Baker suggested a formation of a TG. Peter Lyons volunteered to chair. Peter will follow up with J. Baker for a name and scope of the TG.
- Charlie Curcija commented on how software is handled in the NFRC organization. Software should not be under Technical. He has recommended that Software SC is gatekeeper of all software and possibly moved to R&T Committee. Move forward comments to the Board about where software approval process should be placed.

7. New Business

a. NFRC Document Cycle

Deadline for receipt of code change proposals (IECC) Jan 3, 2013

Completion of ANSI balloting process Dec 1 2012

Completion of NFRC Standards Revisions Dec 1, 2011

Recommendation of this cycle:

- Hold off kick-off of ANSI process until 2011
- Complete and desired changes to 100, 200, 400, by November 2011 membership meeting
- Begin the process again for 2018 code cycle.

Mike T. foresees a problem with this code cycle. There may be more time that what is presented above based on comments by Joe Hayden and Garrett Stone.

8. Adjourn at 11:06 a.m.



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Technical Committee Roster*

As of 3/15/2011

First Name	Last Name	Company Name
Gilbert	Riopel	Air-Ins
Nils	Petermann	Alliance to Save Energy
Ken	Brenden	American Architectural Manufacturers Association (AAMA)
Joe	Jonely	AMSCO Windows
Steve M.	Johnson	Andersen Corporation
Michael J.	Thoman	Architectural Testing, Inc.
Brad	Schultz	Associated Laboratories, Inc.
Steve	Harp	Associated Materials, Inc.
Doug	Harden	Atrium Companies
Travis	Windleharth	Bekeart Speciality Films, LLC
Thomas	Culp	Birch Point Consulting LLC
Garrett	Stone	Brickfield, Burchette, Ritts, & Stone, P.C.
Nelson	Pena	California Energy Commission
James	Larsen	Cardinal Glass Industries, Inc.
Kerry	Haglund	Center for Sustainable Building Research - Univ. of Minnesota
Rik	Vonderhaar	Champion Window
Gary	Hartman	Chelsea Building Products
Joseph	Hetzel	Door & Access Systems Manufacturers Assoc. International (DASMA)
Morgan	Hanam	Enermodal Engineering Limited
George	Nash	Ensinger Building Products
Clay	Stevenson	Entech Solar, Inc.
Jose	Sanchez	Fenestration Testing Lab
Urmilla	Jokhu-Sewell	Glass Association of North America (GANA)
John	Gant	Glen Raven, Inc.
Tim	Singel	Guardian Industries
Lucas	Turner	Hurricane Test Laboratories
Michael	Cienian	Hunter Douglas, Inc.
Margaret	Webb	Insulating Glass Manufacturers Alliance (IGMA)
Darrell	Smith	International Window Film Association (IWFA)
Jose Antonio	Terraza	J & A Windows Inc.
Steve	Strawn	Jeld-Wen, Inc.
Steven	Urich	Keystone Certifications, Inc.
Krish	Kudva	Kinro
Sue	Schreiber	Kolbe-Kolbe
Christian	Kohler	Lawrence Berkeley National Laboratory (LBNL)



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Andy	Hayes	Madico
James C.	Krahn	Marvin Windows & Doors
Steve	Hebeisen	Mecho Shade Corporation
Grant	Muller	Mikron industries
Kevin	Vilhauer	Milgard Manufacturing, Inc.
Gregg	Vincent	Natural Light Energy Systems
Dennis	Northcutt	NT Windows, Inc.
Paris	Waddill	NYSAN Solar Control
David A.	De Block	ODL Incorporated
Sean	Flanigan	Paradigm Windows
Joseph	Hayden	Pella Corporation
Andrew	Caldwell	Phifer Incorporated
David L.	Duly	Pilkington North America, Inc.
Michelle	Sahlin	Professional Awnings Manufacturer Association (PAMA)
Chris	Nolt	ProVia Door, Inc.
Marles	McDonald	National Certified Testing Laboratories - NW
Cole	Woodward	Ravenbrick
Thomas S.	Zaremba	Roetzel & Andress
Michel	Pepin	Royal Windows and Doors Profiles
Tina	Jenkins	Simonton Windows
Namrata	Vora	Soladigm
Dan	State	Solatube
Lisa	Winckler	Solutia, Inc.
Edward	Peterson	Stork Twin City Testing
Ross	McCluney	SunPine Consulting
Steve	Haubert	Sunrise Windows
Caleb	Willis	Switch Materials
Milind	Jhaveri	Technoform
Werner	Lichtenberger	TruSeal Technologies, Inc.
Gena	Webb	Twichell Corporation
Roger	LeBrun	VELUX-America Inc.
Jeff	Baker	WESTLab
Bipin	Shah	WinBuild, Inc.
John	McFee	Window and Door Manufacturer's Association (WDMA)
Tony	Rygg	William Rygg, Consultant
Anthony	Cinnamon	Wiss, Janey, Elstner Assoc. Inc.

**Committee Membership requires members to sign up onsite at meeting for inclusion on roster/voting rights.*

Please note if two consecutive meetings are missed without a voting representative present during the roll call – company will be dropped and interested parties must sign up once again.

If you notice a problem – PLEASE contact the staff of NFRC as soon as possible. Discrepancies cannot be addressed at the meeting: meetings@nfr.org



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NFRC 700 Certification Subcommittee

Tuesday, March 29, 2011

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

Chair: *Joe Jonely, AMSCO*

Vice Chair: *Tina Jenkins, Simonton Windows*

1. Call to Order

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

2. Appoint Recording Secretary (NFRC STAFF)

3. Roll call / Establish quorum

4. Approve Minutes from November 2010 meeting in San Francisco

5. Review and approve agenda

6. Reports

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

7. Unfinished Business

- a. Scope modification

8. New Business

- a. NFRC 700 – Appendix A Ballot
- b. NFRC 700 – Barcode Ballot
- c. NFRC 700 – Door Add-On Matrix Label Ballot
- d. NFRC 700 – Full CPD Number Ballot
- e. NFRC 700 – TDD Matrix Label Ballot

9. Adjourn

SCOPE

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



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

Certification Subcommittee

Wednesday, November 10, 2010

Block Period: 1:00 p.m. – 5:00 p.m.

Chair: Joe Jonely, a.m.SCO

Vice Chair: Tina Jenkins, Simonton Windows

-
1. J. Jonely called the meeting to order at 1:03 p.m.
 2. Stacy Germann (NFRC STAFF) was appointed recording secretary.
 3. Minutes from July 2010 virtual meeting were approved as presented.
 4. The agenda was reviewed and approved as presented.
 5. **Reports**
 - a. PCP Review Task Group – T. Jenkins reported the addition of the full CPD number on the label and if there are any questions, members to contact staff.
MOTION: J. Hayden /J. McFee. Recommend to the Ratings Committee and BOD to direct staff to pursue revising the ungrouping practice so as to not ungroup individual product options where the SHGC and VT values are not affected. Motion passes UVV.
 - b. Attachment PCP TG – (T. Morrissey) J. Jonely reported that group is working to gather new members to being working on Attachment PCP now that NFRC 100 and NFRC 200 documents are approved.
 6. **New Business**
 - a. NFRC 700 – Reprint Labels Ballot
MOTION: J. Hayden / S. Johnson to move ballot forward to Ratings Committee for publication upon implementation. Motion passes by UVV.
 - b. NFRC 700 – FMC Ballot
Brickfield, Burchette, Ritts & Stone: G. Stone (General) – NEG
Withdraws negative with the suggestion that this item should be brought forth when discussing the NFRC 7## Attachments PCP. Darrell Smith will work with the TG to harmonize the Naming Conventions and PCP.

Brickfield, Burchette, Ritts & Stone: G. Stone (Appendix C.3.) – NEG
MOTION: G. Stone / S. Johnson moved to find the negative persuasive and editorial and to use the language modified at the SC. Motion passes by UVV.

IWFA: D. Smith (4.3.4.3) – AC
Approved language is on hold and will be placed n NFRC 700 upon implementation of the APC

IWFA: D. Smith (General) – AC
Addressed by previous discussion.

Motion: J. Jonely/ J. Hayden move to forward to the Ratings Committee the ballot language as edit for approval and publication upon implementation. Motion passes UVV.
 7. The meeting was adjourned at 1:27 p.m.



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NFRC 705 CMA Certification Subcommittee

Tuesday, March 29, 2011

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

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

Co-Chair: *Sneh Kumar, TRACO*

1. Call to Order

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

2. Appoint Recording Secretary (NFRC STAFF)

3. Roll call / Establish quorum

4. Approve Minutes from November 2010 membership meeting

5. Review and approve agenda

6. Reports

- a. CMA Labeling Task Group – (C. Curcija)

7. New Business

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 Subcommittee
NFRC Staff Liaison: Sherri Wendt, CAP Manager * swendt@nfr.org



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



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

Component Modeling Approach (CMA) Ratings Subcommittee

Wednesday, November 10, 2010

Under Ratings Committee Block: 1:00 p.m.–5:00 p.m.

Co Chair: *Sneh Kumar, TRACO*

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

1. The chair called to order @ 2:40 p.m.
2. Ray McGowan (NFRC Staff) appointed recording secretary
3. Reports
 - a. CMA Labeling TG-Charlie Curcija reported the TG had gone over several NFRC 705 ballot negatives prior to the meeting.
 - b. CMA Naming Conventions WG-John Lewis, staff, reported naming conventions are developed and will be posted on the NFRC website for comment.
4. New Business
 - a. NFRC 705-CMA PCP ballot
 - i. ASE-Nils Peterman moved and BBRS-Garrett Stone seconded to find the ASE negative persuasive and substantive and return to TG for further work. Passes 28-8.
 - ii. Anderson-Steve Johnson moved and BBRS-Garrett Stone seconded to find the Anderson negative persuasive and substantive. Passes 11-7.
 - iii. ATI-Mike Thoman and NCTL-Marles McDonald seconded to find the ATI negative persuasive and substantive. Passes 24-4.
 - iv. BBRS negative withdrawn.
 - v. Jeld-Wen negative withdrawn.
 - vi. NCTL negative withdrawn.
5. Adjourned at



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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

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

2. Appoint Recording Secretary (NFRC STAFF)

3. Roll call / Establish quorum

4. Approve Minutes from November 2010 meeting

5. Review and approve agenda

6. Reports

- a. NFRC 712 Attachments Labeling Task Group *(Chair: Tom Morrissey)*
- b. NFRC 712 Attachments PCP Task Group *(Chair: Chuck Anderson)*

7. New Business

- a. Review of Organizational Structure for Ratings Attachments Subcommittee
- b. Appointing of Subcommittee Chair
- c. Development of Subcommittee Scope
- d. Review of Current Ballot and Negatives (if any)Ballot review: *NFRC 712 — Fenestration Attachment Product Certification Program (First Draft)*

8. Adjourn

SCOPE

The NFRC 712 (Attachments) Certification Subcommittee is responsible for <to be developed>.

Committee Chain: * Ratings Committee * NFRC 712 (Attachments) Certification Subcommittee
NFRC Staff Liaison: *John Lewis, Director, Business Development* * jlewis@nfr.org



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Ratings Committee

Tuesday, March 29, 2010

Block Period: 12:30 p.m. – 5:00 p.m.

Chair: *Steve Johnson, Andersen Corporation*

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

1. Call to Order

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

2. Appoint Recording Secretary (NFRC STAFF)

3. Roll call / Establish quorum

4. Approve Minutes from November 2010 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. DeBlock)

7. New Business

- a. Rating's Subcommittee Restructuring – approved by BOD
- b. Full CPD Number on temporary label

8. Adjourn

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*



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

Ratings Committee

Wednesday, November 10, 2010

Block Period: 1:00 p.m. – 5:00 p.m.

Chair: *Steve Strawn, JELD-Wen*

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

1. **S. Strawn called the meeting to order at**
2. **Stacy Germann (NFRC STAFF) appointed recording secretary.**
3. **Roll call was taken and a quorum was established.**
4. **Minutes from July 2010 virtual meeting approved as presented.**
5. **The agenda was reviewed and approved as presented.**
6. **Reports**
 - a. Validation Testing Task Group – (S. Kumar) – TG is disbanded.
 - b. Attachment SC – (M. Cienian / D. DeBlock) – reported that they will begin work on the Attachment PCP now that NFRC-100 & NFRC-200 are approved.
 - c. Labeling SC – (J. McFee / TBD) -
 - i. **MOTION:** J. McFee/ S. Johnson move to recommend moving the NFRC 700 Dash Ballot forward to the Board for approval and implementation upon publication. Passed by UVV.
 - ii. **MOTION:** J. McFee/D. De Block move to the Board for approval for extending the requirement date of the use of Applied Films label showing the U-factor requirement to January 1, 2012. Passed by UVV.
 - iii. NFRC-700 TDD ballot will go back to TG. Suggested a mechanism be put in place within NFRC Council has agreed
 - iv. Request that an additional barcode be put on the temporary label and form a TG.
 - d. Certification SC – (J. Jonely / T. Jenkins)
 - i. **MOTION:** J. Jonely/S. Johnson move to recommend moving the NFRC 700 Reprint Ballot and FMC Ballot forward to the Board for approval and implementation upon publication. Passed by UVV.
 - ii. **MOTION:** J. Jonely/ J. Hayden move to recommend to the Board to direct staff to pursue revising the ungrouping practice in the CPD so as to not ungroup individual product options where SHGC and VT are not affected. Passed by UVV.
 - e. CMA Certification SC – (G. Curtis / S. Kumar) – nothing to report. Significant discussion on actual size vs. standard size that will be brought up at Board.
 - f. AEP Ratings TG – (T. Culp) – no report. Chair directed membership if anyone is interested in participating contact Staff or Chair.
7. **New Business**



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- a. Rating's Subcommittee Restructuring – proposal will be made to the Board to restructure the SCs to be named by the PCP documents with subsequent TGs for respective PCP TG and Labeling TG. Also forming an Attachment SC with respective TGs as well.
 - b. Full CPD Number on temporary label – Staff presented a presentation based on the survey regarding the Full CPD Number label requirement on temporary label. Chair recommended that the membership still work towards the deadline of January 1, 2012 for this requirement.
- 8. The meeting was adjourned at 4:26 p.m.**



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Ratings Committee Roster*

As of 3/15/2011

First Name	Last Name	Company Name
Gilbert	Riopel	Air-Ins
Nils	Petermann	Alliance to Save Energy
Ken	Brenden	American Architectural Manufacturers Association (AAMA)
Joe	Jonely	AMSCO Windows
Steve M.	Johnson	Andersen Corporation
Michael J.	Thoman	Architectural Testing, Inc.
Brad	Schultz	Associated Laboratories, Inc.
Steve	Harp	Associated Materials, Inc.
Doug	Harden	Atrium Companies
Travis	Windleharth	Bekaert Specialty Films, LLC
Thomas	Culp	Birch Point Consulting LLC
Garrett	Stone	Birckfield, Burchette, Ritts, and Stone
Nelson	Pena	California Energy Commission
Jim	Larsen	Cardinal Glass
Kerry	Haglund	Center for Sustainable Building Research
Rik	Vonderhaar	Champion Window
Tracy	Rogers	Edgetech IG
Morgan	Hanam	Enermodal Engineering Limited
George	Nash	Ensinger Building Projects
Clay	Stevenson	Entech Solar, Inc.
John	Gant	Glen Raven
Tim	Singel	Guardian Industries Corp.
Michael	Cienian	Hunter Douglas
Lucas	Turner	Hurricane Testing Laboratories
Darrell	Smith	International Window Film Association (IWFA)
Jose Antonio	Terraza	J & A Windows Inc.
Steve	Strawn	Jeld-Wen, Inc.
Steven	Urich	Keystone Certifications, Inc.
Krish	Kudva	Kinro
Sue	Schreiber	Kolbe-Kolbe
Robin	Mitchell	Lawrence Berkeley National Laboratory (LBNL)
Andy	Hayes	Madico
James C.	Krahn	Marvin Windows & Doors
Stephen	Hebeisen	Mecho Shade Corporation
Grant	Muller	Mikron
Kevin	Vilhauer	Milgard, Inc.
Gregg	Vincent	Natural Light Energy Systems
Marles	McDonald	National Certified Testing Laboratories - NW



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National Fenestration
Rating Council®

First Name	Last Name	Company Name
Paris	Waddill	NYSAN Solar Control
David A.	De Block	ODL Incorporated
Sean	Flanigan	Paradigm Windows
Joseph	Hayden	Pella Corporation
David	Duly	Pilkington North America, Inc.
Michelle	Sahlin	Professional Awnings Manufacturers Association (PAMA)
Chris	Nolt	ProVia Door, Inc.
Cole	Woodward	Ravenbrick
Thomas S.	Zaremba	Roetzel & Andress
Marvin	Stover	Royal Windows and Doors Profiles
Tina	Jenkins	Simonton Windows
Dan	State	Solatube
Lisa	Winckler	Solutia, Inc.
Edward	Peterson	Stork Twin City Testing
Steve	Haubert	Sunrise Windows
Werner	Lichtenberger	Truseal Technologies, Inc.
Roger	LeBrun	Velux America, Inc.
Jeff	Baker	WESTLab
Bipin	Shah	WinBuild, Inc.
John	McFee	Window and Door Manufacturer's Association (WDMA)
William	Rygg	William Rygg, Consultant

**Committee Membership requires members to sign up onsite at meeting for inclusion on roster/voting rights.*

Please note if two consecutive meetings are missed without a voting representative present during the roll call – company will be dropped and interested parties must sign up once again.

If you notice a problem – PLEASE contact the staff of NFRC as soon as possible. Discrepancies cannot be addressed at the meeting:
meetings@nfr.org



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Board of Directors Meeting

Wednesday, March 30, 2011

8:00 a.m. – 11:00 a.m.

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

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

8. Reports

- a. Report: CPD number on the NFRC Label
- b. Report: NFRC Blind Verification Program

9. Q&A (if time allows)

10. Adjourn



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**NFRC Staff Directory
Spring 2011**

James C. Benney

Chief Executive Officer
Voice: (301) 589-1776, ext. 202
Direct: (240) 821-9502
jbenney@nfr.org

John Lewis

Staff Liaison – Attachment SC
Director, Business Development
(301) 589-1776, ext. 217
Direct: (240) 821-9517
jlouis@nfr.org

Ray McGowan

Staff Liaison – Research & Technology Committee
Senior Program Manager
(301) 589-1776, ext. 210
Direct: (240) 821-9510
rmcgowan@nfr.org

Tom Herron

Staff Liaison – Regulatory Affairs & Marketing Comm
Marketing and Communications Manager
(301) 589-1776, ext. 205
Direct: (240) 821-9505
therron@nfr.org

Anita Marsh

Membership Relations Manager
(301) 589-1776, ext. 208
Direct: (240) 821-9508
amarsh@nfr.org

Robin Merrifield

Program Documents Coordinator
(301) 589-1776, ext. 213
Direct: (240) 821-9513
rmerrifield@nfr.org

Stacy Germann

Blind Verification Program Coordinator
(301) 589-1776, ext. 204
Direct: (240) 821-9504
sgermann@nfr.org

Jen Padgett

Staff Liaison – Rating Committee's 705 TG and SC
CMA Program Technical Coordinator
(301) 589-1776, ext. 215
Direct: (240) 821-9515
jpadgett@nfr.org

Una Money Penny

Web Manager
(301) 589-1776, ext. 209
Direct: (240) 821-9509
umoneypenny@nfr.org

Deborah Callahan

Chief Operating Officer
(301) 589-1776, ext. 207
Direct: (240) 821-9507
dcallahan@nfr.org

Scott Hanlon

Staff Liaison – Technical & Ratings Committee
Director, Existing Programs
(301) 589-1776, ext. 219
Direct: (240) 821-9519
shanlon@nfr.org

Robin Clayton

Controller
(301) 589-1776, ext. 203
Direct: (240) 821-9503
rclayton@nfr.org

Dennis Anderson

Staff Liaison – Technical Committee's TG & SC
Laboratory Accreditation Program Manager
(301) 589-1776, ext. 214
Direct: (240) 821-9514
danderson@nfr.org

Sherri Wendt

Staff Liaison – Rating Committee's 700 & 705 TG & SC
Certification Program Manager
(301) 589-1776, ext. 216
Direct: (240) 821-9516
swendt@nfr.org

Toni Stroud

PCP Associate
(301) 589-1776, ext. 211
Direct: (240) 821-9511
tstroud@nfr.org

Maggy Moise-Thomas

IT Manager
(301) 589-1776, ext. 212
mthomas@nfr.org

Nicandra Brown

Customer Service Associate
(301) 589-1776, ext. 218
nbrown@nfr.org

Cheryl Gendron

Meeting Manager
(301) 589-1776, ext. 201
Direct: (240) 821-9501
cgendron@nfr.org

Headquarters * 6305 Ivy Lane, Suite 140 * Greenbelt, Maryland 20770
Phone: 301-589-1776 * Fax 301-589-3884 * Efax: 301-576-5510



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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.](#)*



NFRC Antitrust Compliance Procedures

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

Avoiding Improper Agreements and Discussions Among Competitors.

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

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

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



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

Compliance Education and Monitoring.

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

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



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Duties of Meeting Chairpersons

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

The following are some suggestions for the chair.

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



Getting Involved with NFRC

Guide to the different levels of participation:

TASK GROUPS:

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

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

Requirements and Details:

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

SUBCOMMITTEES:

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

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

Requirements and Details:

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



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

COMMITTEES:

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

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

- Members Appointed by Board:
 - 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 Spring Committee Week Meeting 2011 Pre-Registration List* – (by Company Name)

3G Mermet

Philippe Paugois
5970 N. Main St.
Cowpens, SC 29330
864-463-5419
Email:
philippe.paugois@mermetusa.com

Air-Ins, Inc.

Gilbert Riopel
1320 Lionel-Boulet Boulevard
Varenes, Quebec J3X 1P7
Canada
450/652-0838
Email: g.riopel@air-ins.com

Alliance to Save Energy

Nils Petermann
1850 M Street, N.W., Suite 600
Washington, DC 20036
202/530-2254
Email: npetermann@ase.org

American Architectural Manufacturers Association (AAMA)

Ken Brenden
1827 Walden Office Square, Suite
550
Schaumburg, IL 60173
715-212-0962
Email: kbrenden@aamanet.org

Amsco Windows

Joe Jonely
P.O. Box 25368
Salt Lake City, UT 84125
801/978-5034
Email: joe@amscowindows.com

Andersen Corporation

Steve Johnson
100 Fourth Avenue North, MN 126-
105
Bayport, MN 55003-1096
651-264-5139
Email:
steve.johnson@andersencorp.com

Architectural Testing, Inc. - MN

Brian Amberg
849 Western Avenue North
St. Paul, MN 55117-5245
651/636-3835
Email: bamberg@archtest.com

Architectural Testing, Inc. - PA

Michael Thoman
130 Derry Court
York, PA 17406
717/764-7700
Email: mthoman@archtest.com

Associated Laboratories, Inc.

Brad Snoddy
P.O. Box 152837, 1323 Wall Street
Dallas, TX 75315
214/565-0593
Email: brada@assoc-labs.com

Associated Laboratories, Inc.

John Vaughan
P.O. Box 152837, 1323 Wall Street
Dallas, TX 75315
214/565-0593
Email: johnv@assoc-labs.com

Associated Materials, Inc.

Steve Harp
21629 Zodiac St NE
Wyoming, MN 55092
330/922-2119
Email: Sharp@Alside.com

Associated Materials, Inc.

Ed Ellenberger
3773 State Road
Cuyahoga Falls, OH 44223
330-922-7844
Email: eellenberger@alside.com

Associated Materials, Inc.

Dan Green
3773 State Road
Cuyahoga Falls, OH 44223
330-922-2318
Email:
dgreen@associatedmaterials.com

Association of Millwork Distributors

Jessica Ferris
10047 Robert Trent Jones Parkway
New Port Richey, FL 34655
727-372-3665
Email: jferris@amdweb.com

Atrium Companies Inc.

Douglas Harden
9001 Ambassador Row
Dallas, TX 75247
214/762-9888
Email: douglas.harden@atrium.com

Benson Industries

Catherine Best
1650 N.W. Naito, Suite 250
Portland, OR 97209
503-226-7611 x121
Email: cbest@bensonglobal.com

Birch Point Consulting LLC

Tom Culp
W6025 Rim Of The City Rd.
La Crosse, WI 54601
608-788-8415
Email: culp@birchpointconsulting.com

California Energy Commission

Nelson Peña
1516 Ninth St. MS 25
Sacramento, CA 95814-5512
916-654-4217
Email: npena@energy.state.ca.us

Cardinal Glass Industries, Inc.

Brian Crooks
775 Prairie Center Drive
Eden Prairie, MN 55344
952/928-4613
Email: BCrooks@cardinalcorp.com

Cardinal Glass Industries, Inc.

Jim Larsen
775 Prairie Center Drive, Suite 200
Eden Prairie, MN 55344
952/229-2609
Email: jlarsen@cardinalcorp.com



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Rating Council®

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

Cascade Windows

Greg Lambas
10507 E. Montgomery
Spokane, WA 99206
(509) 789-3030
Email: glambas@cascaedwindows.com

**Center for Sustainable Building
Research**

John Carmody
University of Minnesota, 1425
University Avenue SE, Ste 115
Minneapolis, MN 55414
612/624-1351
Email: carmo001@umn.edu

**Center for Sustainable Building
Research**

Kerry Haglund
University of Minnesota, 1425
University Avenue SE, Ste 115
Minneapolis, MN 55414
612/626-9478
Email: khaglund@umn.edu

**Champion Window and Patio
Room Company**

Rik Vonderhaar
12121 Champion Way
Cincinnati, OH 45241-6419
513/346-4600
Email:
rvonderhaar@championfactorydirect.com

Chelsea Building Products

Gary Hartman
565 Cedar Way
Oakmont, PA 15139
412/826-8077
Email: ghartman@cbpmail.com

D&R International

Emily Zachery
1300 Spring Street, Suite 500
Silver Spring, MD 20910
301 588-9387
Email: ezachery@drintl.com

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

Joseph Hetzel
1300 Sumner Avenue
Cleveland, OH 44115-2851
216/241-7333
Email: jhetzel@thomasamc.com

Edgetech I.G. Inc.

Tracy Rogers
800 Cochran Avenue
Cambridge, OH 43725
800/233-4383
Email: trogers@edgetechig.com

EFCO Corporation

Joseph Holmes
1000 County Rd
Monett, MO 65708
417-235-3193
Email: jholmes@efcocorp.com

**Enermodal Engineering of
Canada**

Morgan Hanam
582 Lancaster St. W.
Kitchener, Ontario N2K 1M3
Canada
519/743-8777
Email: mhanam@enermodal.com

Entech Solar

Clay Stevenson
13301 Park Vista Blvd., Suite 100
Fort Worth, TX 76177
817/224-3506
Email: cstevenson@entechsolar.com

Fenestration Testing Laboratory

Jose Sanchez
8148 NW 74 Avenue
Medley, FL 33166
305/885-3328
Email: Jose@fenlab.com

**Glass Association of North
America (GANA)**

Urmilla Jokhu-Sowell
3629 Kite Landing Lane
Plano, TX 75074
972-897-2226
Email: usowell@glasswebsite.com

Glen Raven, Inc.

John Gant
1831 North Park Avenue
Glen Raven, NC 27217
336 227-6211
Email: jgant@glenraven.com

Greenberg Traurig, LLC

Scott Meza
1750 Tysons Boulevard, Suite 1200
McLean, VA 22102
703 903-7587
Email: MezaS@GTLaw.com

Group14 Engineering

Shelia Gore
1325 16th St
Denver, CO 80218
303/668-9495
Email: sgore@group14eng.com

Guardian Industries Corp.

Steve Farrar
Guardian Industries Corp., 2300
Harmon Road
Auburn Hills, MI 48326
248/340-2104
Email: sfarrar@guardian.com

Guardian Industries Corp.

Tim Singel
14511 Romine Road
Carleton, MI 48117
734/654-4726
Email: tsingel@guardian.com

Hunter Douglas, Inc.

Michael Cienian
1 Duette Way
Broomfield, CO 80020
303-876-3160
Email:
michael.cienian@hunterdouglas.com

Hunter Douglas, Inc.

Thomas Morrissey
144 Ridgewood Drive
Woodstock, IL 60098
815/236-1361
Email:
tom.morrissey@hunterdouglas.com

Hurricane Test Laboratory, LLC

Lucas Turner
162 Rocky Creek Lane
Hillboro, TN 37342
931/315-0103
Email: lucas@htltest.com

IGCC

John Kent
PO box 730, 100 West Main
Sackets Harbor, NY 13685
315-646-2234
Email: staff@amscert.com

**Insulating Glass Manufacturers
Alliance (IGMA)**

Bill Lingnell
1270 Shores Court
Rockwall, TX 75087
972/771-1600
Email: lingnell@swbell.net



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

Insulating Glass Manufacturers Alliance (IGMA)

Margaret Webb
1500 Bank Street, Suite 300
Ottawa, Ontario K1H 1B8
Canada
613 233-1510 x227
Email: mwebb@igmaonline.org

International Window Film Association

Darrell Smith
P.O. Box 3871
Martinsville, VA 24115
276/666-4932
Email: darrell@dsmsservices.com

J&A Windows Inc.

Jose Terrazas
8462 S. Central Avenue
Los Angeles, CA 90001
323-589-6972
Email: ja-windows-incorp@att.net

Jeld-Wen, Inc.

Steve Strawn
200 SW Market St, Suite 550
Portland, OR 97201
503-478-4471
Email: stevestr@jeld-wen.com

Key Communications, Inc.

Deb Levy
P.O. Box 569
Garrisonville, VA 22463
540/720-5584 x.113
Email: DUPLICATE@DebLevy.com

Keystone Certifications, Inc.

Steve Urich, PE
564 Old York Road, Suite 5
Etters, PA 17319
717-932-8500
Email: surich@keystonecerts.com

Kinro, Inc.

Krish Kudva
9683 Carrari Court
Alta Loma, CA 91737
909-980-2309
Email: kvkudva@aol.com

Larson Manufacturing Company

Todd Stratmoen
2333 Eastbrook Drive
Brookings, SD 57006
605/692-6115
Email: tstratmoen@larsondoors.com

Lawrence Berkeley National Laboratory

Robin Mitchell
One Cyclotron Road, MS 90-3111
Berkeley, CA 94720
510/486-4141
Email: RDMitchell@lbl.gov

Lawrence Berkeley National Laboratory

Charlie Curcija
1 Cyclotron Rd. Mail Stop 90-3110
Berkeley, CA 94720
510/495-2602
Email: DCCurcija@lbl.gov

Lawrence Berkeley National Laboratory

Christian Kohler
1132 Derby St
Berkeley, CA 94702
510/486-5040
Email: jckohler@lbl.gov

Marvin Windows & Doors

James Krahn
Highway 11 West
Warroad, MN 56763
218-386-1430
Email: jimkrahn@marvin.com

Mecho Shade Corporation

Steve Hebeisen
42-03 35th Street
Long Island City, NY 11101
718/729-2020
Email: steveh@mechoshade.com

Milgard Manufacturing, Inc.

Kevin Vilhauer
1010 54th Avenue East
Tacoma, WA 98424
253-926-4676
Email: kevinvilhauer@milgard.com

National Accreditation & Management Institute (NAMI)

Steve Frey
4794 George Washington Memorial
Highway
Hayes, NC 23072
(804) 684-5124
Email: Steve@namiinc.com

National Accreditation & Management Institute (NAMI)

Kelly McDonald
4794 George Washington Memorial
Hwy.
Hayes, VA 23072
804.684.5124
Email: kelly@namiinc.com

National Accreditation & Management Institute (NAMI)

Thomas Wix
4794 George Washington Memorial
Highway
Hayes, VA 23072
804-684-5124
Email: tom@namiinc.com

National Certified Testing Laboratories - NW

Marles McDonald
3310 Hill Avenue
Everett, WA 98201
425/259-6799
Email: mmcdonald@nctlinc.com

Natural Light Energy Systems

Gregg Vincent
10821 NORTH 23RD AVE. SUITE
1
PHOENIX, AZ 85029
800-363-9865
Email: GVincent@NLTUBULAR.COM

Newell Window Fashions Inc.

Teresa Williamson
Three Glenlake Parkway
Atlanta, GA 30128
678-404-3360
Email: teresa.williamson@newellco.com

Nysan Shading Systems, LP

Paris Waddill
3004 SW Graham Street
Seattle, WA 98126
213-663-8806
Email: pwaddill@nysan.com

ODL Incorporated

David De Block
215 E Roosevelt
Zeeland, MI 49464
616-772-9111
Email: dave.deblock@odl.com



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ODL Incorporated
Raymond Dill
100 Mulder Drive
Zeeland, MI 49464
616-748-5461
Email: ray.dill@odl.com

Oldcastle BuildingEnvelope
Joseph Schultheis
803 Airport Road
Terrell, TX 75160
972-551-6460
Email: jschultheis@oldcastlebe.com

Oldcastle Glass, Inc.
Michael Krantz
803 Airoport Road
Terrell, TX 75160
972-551-6363
Email: mkkrantz@oldcastleglass.com

Pacific Gas & Electric Company (PG&E)
Theda Silver-Pell
245 MARKET ST, MAIL CODE N3A
San Francisco, CA 94105
415/973-2158
Email: TRSQ@PGE.COM

Pacific Northwest National Laboratory
Terry Mapes
P.O. Box 999
Richland, WA 99352-0999
509-371-6745
Email: terry.mapes@pnl.gov

Pacific Northwest National Laboratory
Graham Parker
902 Battelle Blvd.
Richland, WA 99352
509/375-3805
Email: graham.parker@pnl.gov

Pella Corporation
Joe Hayden
102 Main Street
Pella, IA 50219
641/621-6096
Email: JAHayden@Pella.com

PGT Industries
Mike Nau
1070 Technology Drive
Nokomis, FL 34275
941/486-0100
Email: mnau@pgtindustries.com

Phifer Incorporated
Andrew Caldwell
P.O. Box 1700
Tuscaloosa, AL 35403
800/221-5497
Email: andrew.caldwell@phifer.com

Pilkington North America, Inc.
David Duly
811 Madison Avenue
Toledo, OH 43624
419/247-4328
Email: david.duly@us.pilkington.com

Potomac Communications Group, Inc.
Leonard Greenberger
2025 M. St., N.W., Suite 350
Washington, DC 20036
202/466-7391
Email: LGreenberger@pcgpr.com

Professional Awning Manufacturers Assoc.
Don Smallwood
7241 Ethel Avenue
North Hollywood, CA 91605
818/928-6989
Email: don@abcsuncontrol.com

ProVia Door, Inc.
Chris Nolt
2150 State Rt. 39
Sugarcreek, OH 44681
330-852-4711
Email: christopher.nolt@proviadoor.com

Quast Consulting and Testing, Inc
Armeya Saroufiem
1055 Indianhead dr
Mosinee, WI 54455
715-693-8378
Email: asaroufiem@qcandt.com

Roetzel & Andress
Thomas Zaremba
1 Seagate, Suite 1700
Toledo, OH 43604
419/242-7985
Email: tzaremba@ralaw.com

Royal Window and Door Profiles
Jean Marois
3035 LeCorbusier Blvd.
Laval, Quebec H7L 4C3
Canada
450/687-5115
Email: maroisj@ggc.com

Royal Window and Door Profiles
Michel Pépin
3035 LeCorbusier Blvd.
Laval, QC H7L 4C3
Canada
450/687-5115
Email: pepinm@ggc.com

Simonton Windows
Cristen Baca
5300 Briscoe Rd
Parkersburg, WV 26105
304-428-8261
Email: cristen_baca@simonton.com

Soladigm
Namrata Vora
195 S Milpitas Blvd
Milpitas, CA 95035
408-263-9200
Email: namrata.vora@soladigm.com

Solar Gard Specialty Films, LLC
Steven Schroer
4540 Viewridge Ave.
San Diego, CA 92123
727-437-1037
Email: steven.schroer@bekaert.com

Solatube International, Inc.
Dan State
2210 Oak Ridge Way
Vista, CA 92081-8341
760/477-9437
Email: dstate@solatube.com

Solutia, Inc.
Julia Schimmelpenninck
730 Worcester Street
Springfield, MA 1151
413/730-3413
Email: JCSCHI@solutia.com

Solutia, Inc.
Lisa Winckler
4210 The Great Road
Fieldale, VA 24089
276-627-3457
Email: lisa.winckler@cpfilms.com

Stork Twin City Testing
Matt Botz
662 Cromwell Avenue
St. Paul, MN 55114
651-659-7353
Email: Matt.botz@us.stork.com



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Stork Twin City Testing

Edward Peterson
662 Cromwell Ave.
St. Paul, MN 55114
651-659-7429
Email: edward.peterson@us.stork.com

Stork Twin City Testing

David Whelchel
662 Cromwell Avenue
St. Paul, MN 55114
651-645-3601
Email: dave.whelchel@us.stork.com

SunPine Consulting

Ross McCluney, PhD
3517 Elderview Dr.
Chattanooga, TN 37419
321/917-8292
Email: rm@sunpine.us

Sunrise Windows, LLC

Steven Haubert
200 Enterprise Drive
Temperance, OH 48182-9500
734.847.8778
Email: shaubert@sunrisewindows.com

Technoform

Bart Hensley
2701 Hilton Road
Gate City, VA 24251
432 202 5533
Email: bhensley@technoform.us

Therma-Tru

Steve Jaspersen
118 Industrial Drive
Edgerton, OH 43517
419/298-1740
Email: sjaspersen@ttechnologies.us

Truseal Technologies, Inc.

Werner Lichtenberger
260 Jackson Street West
Hamilton, Ontario L8P 1M5
Canada
9059799052
Email: wernerworks@bell.net

Truseal Technologies, Inc.

Doug Hauck
6680 Parkland Blvd
Solon, OH 44139
440-497-7064
Email: hauck@truseal.com

Twitchell Corporation

Gena Webb
4031 Ross Clark Circle, P.O. Box
8136
Dothan, AL 36304
334-673-4127
Email: genaw@twitchellcorp.com

Twitchell Corporation

Darryl White
4031 Ross Clark Circle, P.O. Box
8136
Dothan, AL 36304
334-673-4127
Email: dwhite@twitchellcorp.com

U.S. Department of Energy

Richard Karney
1000 Independence Avenue, SW,
EE2J, Room 1J027
Washington, DC 20585-0121
202/586-9127
Email: richard.karney@ee.doe.gov

U.S. Department of Energy

Marc LaFrance
1000 Independence Avenue, SW
Washington, DC 20585-0121
202-586-9142
Email: marc.lafrance@ee.doe.gov

VELUX-America Inc.

Roger LeBrun
PO Box 5001
Greenwood, SC 29648-5001
864/941-4828
Email: roger.lebrun@velux.com

WESTLab

Jeff Baker
4 Beck Blvd. Unit 4
Penetang, Ontario L9M 2H3
Canada
705-812-0710
Email: jeff@westlab.net

WESTLab

Ken Nittler
1721 Arroyo Drive
Auburn, CA 95603
530 885-9891
Email: ken@westlab.net

William Rygg, Consultant

Tony Rygg
4520 Berrendo Drive
Sacramento, CA 95864
916/812-5706
Email: trygg@energy.state.ca.us

WinBuild, Inc.

Bipin Shah
11103 Redford Court
Fairfax, VA 22030
703-273-4981
Email: Winbuild.usa@gmail.com

Window and Door Manufacturer's Association

Stewart Nicholas
401 N. Michigan Ave., Ste 2200
Chicago, IL 60611
312/321-6802
Email: stewart@amscert.com

Window and Door Manufacturer's Association

John McFee
401 N. Michigan Ave., Ste 2200
Chicago, IL 60611
312 673 4828
Email: jmcfee@wdma.com

Contact Notes:

***Notes:**

- List includes all registrations received (with payment) by 03/10/2011
- Any non-renewing NFRC member (or unpaid new member) for 2011 will be required to pay non-member balance due before registration is confirmed.



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

Brian Amberg

Architectural Testing, Inc. - MN
849 Western Avenue North
St. Paul, MN 55117-5245
651/636-3835
Email: bamberg@archtest.com

Cristen Baca

Simonton Windows
5300 Briscoe Rd
Parkersburg, WV 26105
304-428-8261
Email: cristen_baca@simonton.com

Jeff Baker

WESTLab
4 Beck Blvd. Unit 4
Penetang, Ontario L9M 2H3
Canada
705-812-0710
Email: jeff@westlab.net

Catherine Best

Benson Industries
1650 N.W. Naito, Suite 250
Portland, OR 97209
503-226-7611 x121
Email: cbest@bensonglobal.com

Matt Botz

Stork Twin City Testing
662 Cromwell Avenue
St. Paul, MN 55114
651-659-7353
Email: Matt.botz@us.stork.com

Ken Brenden

American Architectural
Manufacturers Association (AAMA)
1827 Walden Office Square, Suite
550
Schaumburg, IL 60173
715-212-0962
Email: kbrenden@aamanet.org

Andrew Caldwell

Phifer Incorporated
P.O. Box 1700
Tuscaloosa, AL 35403
800/221-5497
Email: andrew.caldwell@phifer.com

John Carmody

Center for Sustainable Building
Research
University of Minnesota, 1425
University Avenue SE, Ste 115
Minneapolis, MN 55414
612/624-1351
Email: carmo001@umn.edu

Michael Cienian

Hunter Douglas, Inc.
1 Duette Way
Broomfield, CO 80020
303-876-3160
Email:
michael.cienian@hunterdouglas.com

Brian Crooks

Cardinal Glass Industries, Inc.
775 Prairie Center Drive
Eden Prairie, MN 55344
952/928-4613
Email: BCrooks@cardinalcorp.com

Tom Culp

Birch Point Consulting LLC
W6025 Rim Of The City Rd.
La Crosse, WI 54601
608-788-8415
Email: culp@birchpointconsulting.com

Charlie Curcija

Lawrence Berkeley National
Laboratory
1 Cyclotron Rd. Mail Stop 90-3110
Berkeley, CA 94720
510/495-2602
Email: DCCurcija@lbl.gov

David De Block

ODL Incorporated
215 E Roosevelt
Zeeland, MI 49464
616-772-9111
Email: dave.deblock@odl.com

Raymond Dill

ODL Incorporated
100 Mulder Drive
Zeeland, MI 49464
616-748-5461
Email: ray.dill@odl.com

David Duly

Pilkington North America, Inc.
811 Madison Avenue
Toledo, OH 43624
419/247-4328
Email: david.duly@us.pilkington.com

Ed Ellenberger

Associated Materials, Inc.
3773 State Road
Cuyahoga Falls, OH 44223
330-922-7844
Email: eellenberger@alside.com

Steve Farrar

Guardian Industries Corp.
Guardian Industries Corp., 2300
Harmon Road
Auburn Hills, MI 48326
248/340-2104
Email: sfarrar@guardian.com

Jessica Ferris

Association of Millwork Distributors
10047 Robert Trent Jones Parkway
New Port Richey, FL 34655
727-372-3665
Email: jferris@amdweb.com

Steve Frey

National Accreditation &
Management Institute (NAMI)
4794 George Washington Memorial
Highway
Hayes, NC 23072
(804) 684-5124
Email: Steve@namiinc.com

John Gant

Glen Raven, Inc.
1831 North Park Avenue
Glen Raven, NC 27217
336 227-6211
Email: jgant@glenraven.com

Shelia Gore

Group14 Engineering
1325 16th St
Denver, CO 80218
303/668-9495
Email: sgore@group14eng.com



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Pre-registration List (by Last Name) Continued....

Dan Green

Associated Materials, Inc.
3773 State Road
Cuyahoga Falls, OH 44223
330-922-2318
Email: dgreen@associatedmaterials.com

Leonard Greenberger

Potomac Communications Group,
Inc.
2025 M. St., N.W., Suite 350
Washington, DC 20036
202/466-7391
Email: LGreenberger@pcgpr.com

Kerry Haglund

Center for Sustainable Building
Research
University of Minnesota, 1425
University Avenue SE, Ste 115
Minneapolis, MN 55414
612/626-9478
Email: khaglund@umn.edu

Morgan Hanam

Enermodal Engineering of Canada
582 Lancaster St. W.
Kitchener, Ontario N2K 1M3
Canada
519/743-8777
Email: mhanam@enermodal.com

Douglas Harden

Atrium Companies Inc.
9001 Ambassador Row
Dallas, TX 75247
214/762-9888
Email: douglas.harden@atrium.com

Steve Harp

Associated Materials, Inc.
21629 Zodiac St NE
Wyoming, MN 55092
330/922-2119
Email: Sharp@Alside.com

Gary Hartman

Chelsea Building Products
565 Cedar Way
Oakmont, PA 15139
412/826-8077
Email: ghartman@cbpmail.com

Steven Haubert

Sunrise Windows, LLC
200 Enterprise Drive
Temperance, OH 48182-9500
734.847.8778
Email: shaubert@sunrisewindows.com

Doug Hauck

Truseal Technologies, Inc.
6680 Parkland Blvd
Solon, OH 44139
440-497-7064
Email: hauck@truseal.com

Joe Hayden

Pella Corporation
102 Main Street
Pella, IA 50219
641/621-6096
Email: JAHayden@Pella.com

Steve Hebeisen

Mecho Shade Corporation
42-03 35th Street
Long Island City, NY 11101
718/729-2020
Email: steveh@mechoshade.com

Bart Hensley

Technoform
2701 Hilton Road
Gate City, VA 24251
432 202 5533
Email: bhensley@technoform.us

Joseph Hetzel

DASMA (Door & Access Systems
Manufacturers Assoc. International)
1300 Sumner Avenue
Cleveland, OH 44115-2851
216/241-7333
Email: jhetzel@thomasamc.com

Joseph Holmes

EFCO Corporation
1000 County Rd
Monett, MO 65708
417-235-3193
Email: jholmes@efcocorp.com

Steve Jaspersen

Therma-Tru
118 Industrial Drive
Edgerton, OH 43517
419/298-1740
Email: sjaspersen@ttechnologies.us

Steve Johnson

Andersen Corporation
100 Fourth Avenue North, MN 126-
105
Bayport, MN 55003-1096
651-264-5139
Email: steve.johnson@andersencorp.com

Urmilla Jokhu-Sowell

Glass Association of North America
(GANA)
3629 Kite Landing Lane
Plano, TX 75074
972-897-2226
Email: usowell@glasswebsite.com

Joe Jonely

Amsco Windows
P.O. Box 25368
Salt Lake City, UT 84125
801/978-5034
Email: joe@amscowindows.com

Richard Karney

U.S. Department of Energy
1000 Independence Avenue, SW,
EE2J, Room 1J027
Washington, DC 20585-0121
202/586-9127
Email: richard.karney@ee.doe.gov

John Kent

IGCC
PO box 730, 100 West Main
Sackets Harbor, NY 13685
315-646-2234
Email: staff@amscert.com

Christian Kohler

Lawrence Berkeley National
Laboratory
1132 Derby St
Berkeley, CA 94702
510/486-5040
Email: jckohler@lbl.gov

James Krahn

Marvin Windows & Doors
Highway 11 West
Warroad, MN 56763
218-386-1430
Email: jimkrahn@marvin.com

Michael Krontz

Oldcastle Glass, Inc.
803 Airoport Road
Terrell, TX 75160
972-551-6363
Email: mkrontz@oldcastleglass.com

Krish Kudva

Kinro, Inc.
9683 Carrari Court
Alta Loma, CA 91737
909-980-2309
Email: kvkudva@aol.com



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Pre-registration List (by Last Name) Continued....

Marc LaFrance

U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-0121
202-586-9142
Email: marc.lafrance@ee.doe.gov

Greg Lambas

Cascade Windows
10507 E. Montgomery
Spokane, WA 99206
(509) 789-3030
Email: glambas@cascaedwindows.com

Jim Larsen

Cardinal Glass Industries, Inc.
775 Prairie Center Drive, Suite 200
Eden Prairie, MN 55344
952/229-2609
Email: jlarsen@cardinalcorp.com

Roger LeBrun

VELUX-America Inc.
PO Box 5001
Greenwood, SC 29648-5001
864/941-4828
Email: roger.lebrun@velux.com

Deb Levy

Key Communications, Inc.
P.O. Box 569
Garrisonville, VA 22463
540/720-5584 x.113
Email: DUPLICATE@DebLevy.com

Werner Lichtenberger

Truseal Technologies, Inc.
260 Jackson Street West
Hamilton, Ontario L8P 1M5
Canada
9059799052
Email: wernerworks@bell.net

Bill Lingnell

Insulating Glass Manufacturers
Alliance (IGMA)
1270 Shores Court
Rockwall, TX 75087
972/771-1600
Email: lingnell@swbell.net

Terry Mapes

Pacific Northwest National
Laboratory
P.O. Box 999
Richland, WA 99352-0999
509-371-6745
Email: terry.mapes@pnl.gov

Jean Marois

Royal Window and Door Profiles
3035 LeCorbusier Blvd.
Laval, Quebec H7L 4C3
Canada
450/687-5115
Email: maroisj@ggc.com

Ross McCluney, Ph.D.

SunPine Consulting
3517 Elderview Dr.
Chattanooga, TN 37419
321/917-8292
Email: rm@sunpine.us

Marles McDonald

National Certified Testing
Laboratories - NW
3310 Hill Avenue
Everett, WA 98201
425/259-6799
Email: mmcdonald@nctlinc.com

Kelly McDonald

National Accreditation &
Management Institute (NAMI)
4794 George Washington Memorial
Hwy.
Hayes, VA 23072
804.684.5124
Email: kelly@namiinc.com

John McFee

Window and Door Manufacturer's
Association
401 N. Michigan Ave., Ste 2200
Chicago, IL 60611
312 673 4828
Email: jmcfee@wdma.com

Scott Meza

Greenberg Traurig, LLC
1750 Tysons Boulevard, Suite 1200
McLean, VA 22102
703 903-7587
Email: MezaS@GTLaw.com

Robin Mitchell

Lawrence Berkeley National
Laboratory
One Cyclotron Road, MS 90-3111
Berkeley, CA 94720
510/486-4141
Email: RDMitchell@lbl.gov

Thomas Morrissey

Hunter Douglas, Inc.
144 Ridgewood Drive
Woodstock, IL 60098
815/236-1361
Email: tom.morrissey@hunterdouglas.com

Mike Nau

PGT Industries
1070 Technology Drive
Nokomis, FL 34275
941/486-0100
Email: mnau@pgtindustries.com

Teresa Williamson

Newell Window Fashions Inc.
Three Glenlake Parkway
Atlanta, GA 30128
678-404-3360
Email: teresa.williamson@newellco.com

Stewart Nicholas

Window and Door Manufacturer's
Association
401 N. Michigan Ave., Ste 2200
Chicago, IL 60611
312/321-6802
Email: stewart@amscert.com

Ken Nittler

WESTLab
1721 Arroyo Drive
Auburn, CA 95603
530 885-9891
Email: ken@westlab.net

Chris Nolt

ProVia Door, Inc.
2150 State Rt. 39
Sugarcreek, OH 44681
330-852-4711
Email: christopher.nolt@proviadoor.com

Graham Parker

Pacific Northwest National
Laboratory
902 Battelle Blvd.
Richland, WA 99352
509/375-3805
Email: graham.parker@pnl.gov

Philippe Paugois

3G Mermet
5970 N. Main St.
Cowpens, SC 29330
864-463-5419
Email: philippe.paugois@mermetusa.com



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Pre-registration List (by Last Name) Continued...

Nelson Peña

California Energy Commission
1516 Ninth St. MS 25
Sacramento, CA 95814-5512
916-654-4217
Email: npena@energy.state.ca.us

Michel Pépin

Royal Window and Door Profiles
3035 LeCorbusier Blvd.
Laval, QC H7L 4C3
Canada
450/687-5115
Email: pepinm@ggc.com

Nils Petermann

Alliance to Save Energy
1850 M Street, N.W., Suite 600
Washington, DC 20036
202/530-2254
Email: npetermann@ase.org

Edward Peterson

Stork Twin City Testing
662 Cromwell Ave.
St. Paul, MN 55114
651-659-7429
Email: edward.peterson@us.stork.com

Gilbert Riopel

Air-Ins, Inc.
1320 Lionel-Boulet Boulevard
Varennes, Quebec J3X 1P7
Canada
450/652-0838
Email: g.riopel@air-ins.com

Tracy Rogers

Edgetech I.G. Inc.
800 Cochran Avenue
Cambridge, OH 43725
800/233-4383
Email: trogers@edgetechig.com

Tony Rygg

William Rygg, Consultant
4520 Berrendo Drive
Sacramento, CA 95864
916/812-5706
Email: trygg@energy.state.ca.us

Jose Sanchez

Fenestration Testing Laboratory
8148 NW 74 Avenue
Medley, FL 33166
305/885-3328
Email: Jose@fenlab.com

Armeya Saroufiem

Quast Consulting and Testing, Inc
1055 Indianhead dr
Mosinee, WI 54455
715-693-8378
Email: asaroufiem@qcandt.com

Julia Schimmelpenningh

Solutia, Inc.
730 Worcester Street
Springfield, MA 1151
413/730-3413
Email: JCSCHI@solutia.com

Steven Schroer

Solar Gard Specialty Films, LLC
4540 Viewridge Ave.
San Diego, CA 92123
727-437-1037
Email: steven.schroer@bekaert.com

Joseph Schultheis

Oldcastle BuildingEnvelope
803 Airport Road
Terrell, TX 75160
972-551-6460
Email: jschultheis@oldcastlebe.com

Bipin Shah

WinBuild, Inc.
11103 Redford Court
Fairfax, VA 22030
703-273-4981
Email: Winbuild.usa@gmail.com

Theda Silver-Pell

Pacific Gas & Electric Company
(PG&E)
245 MARKET ST, MAIL CODE N3A
San Francisco, CA 94105
415/973-2158
Email: TRSQ@PGE.COM

Tim Singel

Guardian Industries Corp.
14511 Romine Road
Carleton, MI 48117
734/654-4726
Email: tsingel@guardian.com

Don Smallwood

Professional Awning Manufacturers
Assoc.
7241 Ethel Avenue
North Hollywood, CA 91605
818/928-6989
Email: don@abcsuncontrol.com

Darrell Smith

International Window Film
Association
P.O. Box 3871
Martinsville, VA 24115
276/666-4932
Email: darrell@dsmsservices.com

Brad Snoddy

Associated Laboratories, Inc.
P.O. Box 152837, 1323 Wall Street
Dallas, TX 75315
214/565-0593
Email: brada@assoc-labs.com

Dan State

Solatube International, Inc.
2210 Oak Ridge Way
Vista, CA 92081-8341
760/477-9437
Email: dstate@solatube.com

Clay Stevenson

Entech Solar
13301 Park Vista blvd., Suite 100
Fort Worth, TX 76177
817/224-3506
Email: cstevenson@entechsolar.com

Todd Stratmoen

Larson Manufacturing Company
2333 Eastbrook Drive
Brookings, SD 57006
605/692-6115
Email: tstratmoen@larsondoors.com

Steve Strawn

Jeld-Wen, Inc.
200 SW Market St, Suite 550
Portland, OR 97201
503-478-4471
Email: stevestr@jeld-wen.com

Jose Terrazas

J&A Windows Inc.
8462 S. Central Avenue
Los Angeles, CA 90001
323-589-6972
Email: ja-windows-inccorp@att.net

Michael Thoman

Architectural Testing, Inc. - PA
130 Derry Court
York, PA 17406
717/764-7700
Email: mthoman@archtest.com



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Lucas Turner

Hurricane Test Laboratory, LLC
162 Rocky Creek Lane
Hillboro, TN 37342
931/315-0103
Email: lucas@htltest.com

Steve Urich, PE

Keystone Certifications, Inc.
564 Old York Road, Suite 5
Etters, PA 17319
717-932-8500
Email: surich@keystonecerts.com

John Vaughan

Associated Laboratories, Inc.
P.O. Box 152837, 1323 Wall Street
Dallas, TX 75315
214/565-0593
Email: johnv@assoc-labs.com

Kevin Vilhauer

Milgard Manufacturing, Inc.
1010 54th Avenue East
Tacoma, WA 98424
253-926-4676
Email: kevinvilhauer@milgard.com

Gregg Vincent

Natural Light Energy Systems
10821 North 23rd Ave. Suite 1
Phoenix, AZ 85029
800-363-9865
Email: GVincent@NLTUBULAR.COM

Rik Vonderhaar

Champion Window and Patio Room
Company
12121 Champion Way
Cincinnati, OH 45241-6419
513/346-4600
Email:
rvonderhaar@championfactorydirect.com

Contact Notes:

Namrata Vora

Soladigm
195 S Milpitas Blvd
Milpitas, CA 95035
408-263-9200
Email: namrata.vora@soladigm.com

Paris Waddill

Nysan Shading Systems, LP
3004 SW Graham Street
Seattle, WA 98126
213-663-8806
Email: pwaddill@nysan.com

Gena Webb

Twitchell Corporation
4031 Ross Clark Circle, P.O. Box
8136
Dothan, AL 36304
334-673-4127
Email: genaw@twitchellcorp.com

Margaret Webb

Insulating Glass Manufacturers
Alliance (IGMA)
1500 Bank Street, Suite 300
Ottawa, Ontario K1H 1B8
Canada
613 233-1510 x227
Email: mwebb@igmaonline.org

David Whelchel

Stork Twin City Testing
662 Cromwell Avenue
St. Paul, MN 55114
651-645-3601
Email: dave.whelchel@us.stork.com

Darryl White

Twitchell Corporation
4031 Ross Clark Circle, P.O. Box
8136
Dothan, AL 36304
334-673-4127
Email: dwhite@twitchellcorp.com

Lisa Winckler

Solutia, Inc.
4210 The Great Road
Fieldale, VA 24089
276-627-3457
Email: lisa.winckler@cpfilms.com

Thomas Wix

National Accreditation &
Management Institute (NAMI)
4794 George Washington Memorial
Highway
Hayes, VA 23072
804-684-5124
Email: tom@namiinc.com

Emily Zachery

D&R International
1300 Spring Street, Suite 500
Silver Spring, MD 20910
301 588-9387
Email: ezachery@drintl.com

Thomas Zaremba

Roetzel & Andress
1 Seagate, Suite 1700
Toledo, OH 43604
419/242-7985
Email: tzaremba@ralaw.com

*Notes:

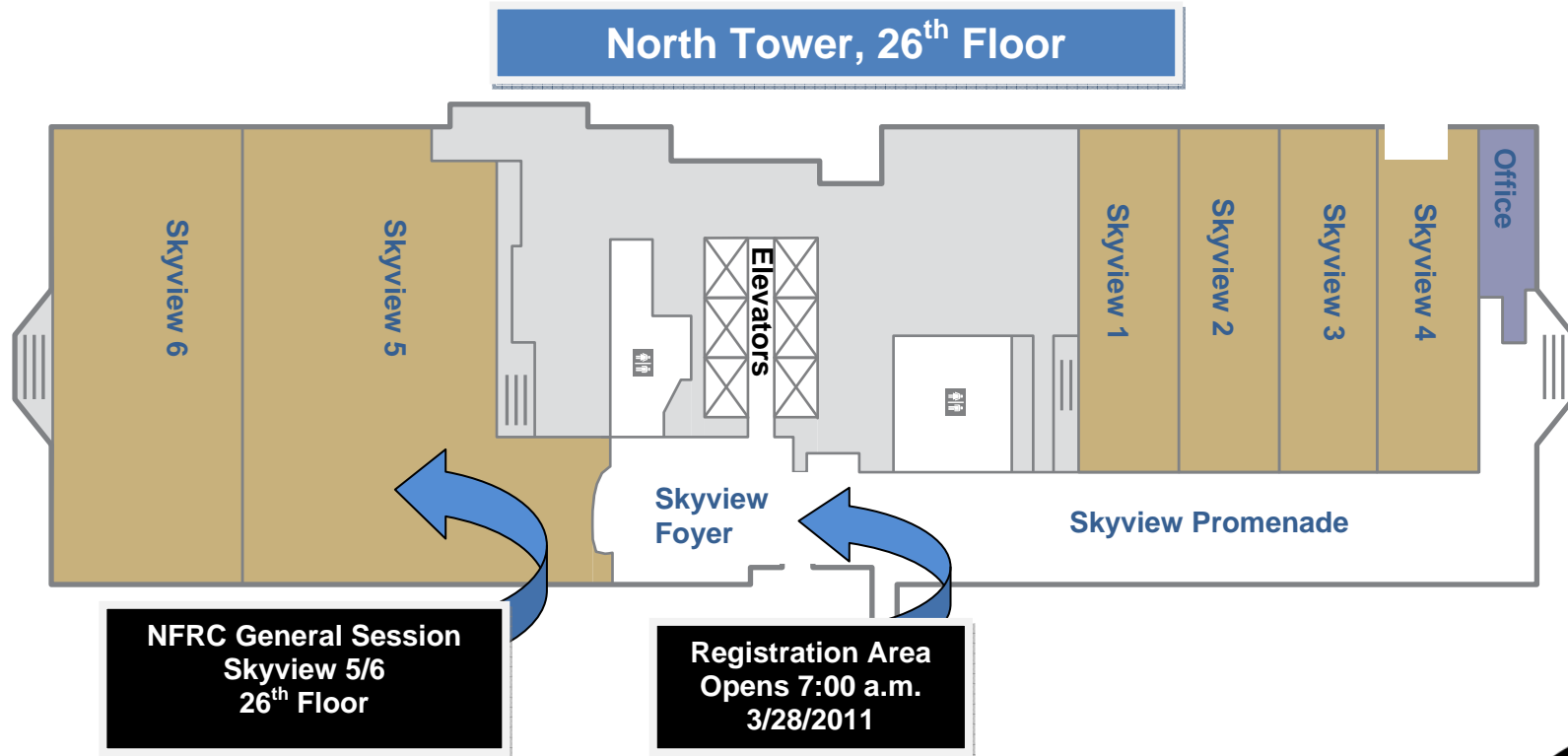
- List includes all registrations received (with payment) by 03/10/2011
- Any non-renewing NFRC member (or unpaid new member) for 2011 will be required to pay non-member balance due before registration is confirmed.

Welcome NFRC

NFRC 2011 Spring Committee Week Meeting

~ March 28-30, 2011 ~

MAP



Continental Breakfast will be served in Skyview 5/6

Monday through Wednesday mornings complimentary for all NFRC Meeting Registrants.

Bally's, Las Vegas

[NFRC Spring 2011 Meeting Information](#)

3645 Las Vegas Blvd South

Las Vegas, Nevada 89109

877-603-4390* Reservations (online above) or 1-800-CEASARS



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