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**MINUTES OF FIFTY-SIXTH MEETING OF THE CERTIFICATION COMMITTEE**  
**March 1 and 2, 2011**  
**Sheraton, Orlando Downtown, Orlando, FL**

		<b>Dates and Votes Present</b>	
		<u><b>3/1/11</b></u>	<u><b>3/2/11</b></u>
<b><u>Members by Virtue of Being a Public Interest Participant</u></b>			
Public Interest	Geoff Francis	1	1
Public Interest	Dennis Johnson	1	1
Public Interest	Bruce Kaskel	1	1
Public Interest	Elaine Rodman	1	1
<b><u>Member by Virtue of Being a Licensee With a Certified Product</u></b>			
AGC Flat Glass	Mark Cody	1	1
Arch Aluminum	Cliff Monroe	1	1
Arch Canada - Trulite	Ray Wakefield	1	1
Associated Materials	Steve Harp	1	1
Associated Materials	Christian Cirino	Present	Present
Cardinal IG	Bob Spindler	1	1
Cardinal IG	Jeff Haberer	Present	Present
Guardian Fabrication Corp	David Cooper	1	1
Intigral	Mark Hutchinson	1	1
Marvin Windows	James Krahn	1	1
ODL, Inc.	Chuck Pergler	1	1
Oldcastle BuildingEnvelope	Rick Wright	1	1
Pella Corporation	John Matuszewski	1	1
SAGE Electrochromics	Helen Sanders	1	1
Silverline Building Products	Craig Calderone	1	1
Viracon Inc.	Don Boutelle	1	1
<b><u>Member by Virtue of Being a Supplier Participant</u></b>			
Allmetal	Denny Raske	1	1
Bostik	Bill Arndell	1	1
Chem Source	John Thomas	1	1
Edgetech IG	Tracy Rodgers	1	1
Edgetech IG	Joe Erb	Present	Absent
FDR Design	Randi Ernst	1	1
Glasslam	Gerhard Reichert	1	1
HB Fuller	John Greenzweig	1	1
Saint Gobain	Ariane Apler	1	1
TruSeal Technologies	Tim Harris	1	1
<b>Votes Present</b>		<b>27</b>	<b>27</b>

## **Guest, Laboratories, Legal Council and Staff**

AMS, Inc. (IGCC Administrator)	John Kent	Present	Present
Andersen Corp	Steve Johnson	Present	Present
Andersen Corp	Kate Graham	Present	Present
Architectural Testing Inc.	Dan Braun	Present	Present
China National Safety Glass Test Ctr	Wu Huiting	Present	Present
Exova	David Bailey	Present	Present
Howe & Hutton (IGCC Legal Counsel)	Leland Badger	Present	Absent
IGMA	Margaret Webb	Present	Present
IGMA	Allison Beck	Present	Present
IGMA	Bill Lingnell	Present	Present
Intertek	Jim Ziobroski	Present	Present
SAGE Electrochromics	Helen Sanders	Present	Present

**Persons Present**

**42**

**40**

3.1.11.1 The meeting was called to order at 1:08 pm by the Chair Joe Erb. All present introduced themselves.

3.1.11.2 **(See Attachment #1)** A quorum was declared present. Requirements for a quorum, committee membership, voting rights and responsibilities were reviewed.

3.1.11.3 The minutes of the June 22 and 23, 2010 meeting in Denver, CO were reviewed. A motion was made by Kaskel/Rodgers to approve the minutes.

Vote: Unanimous Affirmative  
Motion Passed

3.1.11.4 **Sub Committee Structure**

**(See Attachment #2)** The standing committees within the certification process were reviewed. The attachment to these minutes show the results of volunteers or appointments made during this meeting. A motion was made by Rodman/Harp to approve the appointments to the appeals committee as attached.

Vote: Unanimous Affirmative  
Motion Passed

3.1.11.5 **Legal Counsel's Report – Lee Badger**

**(See Attachment #3)**

- A) Legal guidance as to IGCC Antitrust Compliance Program and written guidelines were discussed and provided to all in attendance.
- B) Legal guidance and comments were provided regarding IGCC operation in light of:
  - 1. Illinois Not for Profit Corporation Act, as amended (under which IGCC is incorporated).
  - 2. Internal Revenue Code sec. 501 (c) (3) under which IGCC maintains tax exempt status.

3. U.S. Trademark Law and U.S. Patent and Trademark Office matters concerning the IGCC mark.
4. Relevant U.S. Department of Justice Antitrust Division and Federal Trade Commission Matters.

**3.1.11.6 IGCC Board of Governors Report – Ray Wakefield**

- A) The longer term make-up of the IGCC Board was review with an eye toward better succession planning of Board members and Officers.
- B) A new version of an IGCC participant agreement has been drafted and was reviewed by the Board. This document will be finalized and circulated to all (non IG fabricator) participants for signature in the coming months.
- C) NFRC's mandate for IG certification as a condition of NFRC certification is driving many issues and has increased testing activity.
- D) IGCC's financial condition was reviewed by the Board and it is felt that IGCC has appropriate reserves for the foreseeable future.
- E) It was noted that IGMA will be providing at the March 23-25 Las Vegas meeting, information intended to increase the likelihood of successful certification testing.

**3.1.11.7 Financial Report – Jim Krahn**

(See Attachment #4)

**3.1.11.8 Administrator's Report – John Kent**

(See Attachment #5)

**3.1.11.9 Certification Appeals Committee – John Kent**

There was no activity to report since the last Certification Committee meeting.

**3.1.11.10 IGMA Report – Margaret Webb**

- A) The Winter 2011 IGMA news letter was recently published and is available.
- B) The next IGMA meeting will be March 23-25, 2011 in Las Vegas in conjunction with GANA and NFRC meetings.
- C) IGMA has current activity addressing thermal stress, design considerations for multiple cavity IG units, gas permeability of edge seal systems, glazing guidelines, and guidelines for when to use capillary tubes.
- D) Guidance for establishing equivalency of various components is being reviewed for the IGMAC program. Effort will be put toward harmonization with the IGCC/IGMA E2190 program.
- E) There will be an on-line educational seminar addressing glass handling and safety.
- F) The summer meeting is tentatively schedules for August 31, September 1, 2011 at a location TBD.

**3.1.11.11 NFRC and DOE/EPA Update**

- A) The EPA, in concert with NFRC, is moving forward with a verification program where the intent is to open market purchase, or acquire, fenestration products to be inspected

and or tested to validate stated ratings. NFRC intends to implement a pilot program in 2011. It was noted that should a failure occur in this process, it could have ramifications for the IG unit supplier.

- B) Several issues relative to NFRC and blinds between the glass (BBG) will be addressed under agenda item 13.
- C) It was noted that DOE is soliciting requests for proposal for a DRAFT of an up-graded version of ASTM E2190. The intent seems to be to develop a more rigorous standard.

#### 3.1.11.12 **ASTM E2190 Update – Jeff Haberer**

- A) There continues to be concern over the ASTM fog test regarding the severity and accuracy of testing and if the test correlates to the real world. The IGCC fog test review sub-committee chaired by Dan Braun will continue to investigate this topic. Anyone in the group was encouraged to provide comments to the Administrative Office or Dan Braun.
- B) The 2010 version of ASTM E2188, E2189 and E2190 are publically available. A report of changes included in the 2010 version of the standard was provided (**See Attachment #6**). Some of the changes will effect how IGCC/IGMA implement the standards. After review a motion was made by Reichert/Ernst to raise the number of submitted test units from 12 to 13 for double pane and 14 to 15 for triple pane units and implement the 2010 version of the ASTM standards 7/1/11. A recommendation shall also be forwarded to NFRC asking NFRC to mandate adoption of the new version of the standard(s) with an effective date of 7/1/11.

Vote: Unanimous Affirmative  
Motion Passed

***Subsequent to this meeting a report was prepared addressing IGCC/IGMA's implementation plan for the 2010 version of the standards. This report has been included in Attachment #6 of these minutes.***

#### 3.1.11.13 **Retest Practices (Fog Test)**

(**See Attachment # 7**) It was recognized that the table in the attachment will need to be revised after 7/1/11 with the adoption of the 2010 version of the ASTM standards. After discussion of the fog test a motion was made by Harp/Pergler that “Two consecutive failures shall result in loss of authorization to label except that three consecutive fog failures shall result in loss of authorization to label”.

Vote:           14     Affirmative  
                  4     Opposed  
                  3     Abstain  
Motion Passes

#### 3.1.11.14 **Laboratory Approval, Manual and Agreement**

(**See Attachment #8**) Concern was expressed regarding performance of some laboratories. The Administrator explained that laboratories are audited for technical capability and competence, and the Administrative Report includes test times, but there is no measure of customer service. It was noted that any party, IGCC or an IGCC licensee, may express concern directly to the

laboratory or file a formal complaint with the lab under their ISO 17025 quality system. After further discussion, a motion was made by Harp/Wakefield to approve the list of laboratories as presented for another 2 year period.

Vote: Unanimous Affirmative  
Motion Passed

*Chairman Joe Erb departed the meeting at this point and Vice Chair Cliff Monroe assumed the chair of this meeting.*

#### 3.1.11.15 CPD Guidelines and Equivalency Sub-Committee

- A) Interim Certification – (See Attachment #9) In recognition of the growing need for flexibility and the urgency to obtain IG certification in order to enter the market place, particularly for NFRC, interest in an alternate path to certification was discussed at the last meeting. A draft document was developed and reviewed by the CPD Guidelines and Equivalency Committee. After further edits, which are included in the attachment, a motion was made by Calderone/Rodgers to approve as edited the IGCC/IGMA Certification Note CN IG1010 “Interim Certification”.

Vote: 20 Affirmative  
4 Opposed  
0 Abstain

Motion Passes

- B) IGCC and IGMA/IGMAC Sealant Equivalency – (See Attachment #10) A committee within IGMA for the IGMAC certification program developed a new system of generic categorization of sealants based on sealant properties and application characteristics. After discussion a motion was made by Arndell/Spindler that the IGCC/IGMA certification program shall adopt use of the generic sealant categories contained in the attachment. *(Subsequent to the meeting a table was created comparing the old and new sealant codes and this table is also included in attachment #10).*

Vote: 23 Affirmative  
0 Opposed  
1 Abstain

Motion Passes

- C) List of Reviewed Sealants and Integrated Spacer Systems - (See Attachment #11) The lists, which have been developed over the last few meeting, were presented with pending products (products for which IGCC has not received test reports) also listed. After discussion and review a motion was made by Rogers/Cooper to accept the lists as presented with the removal of all pending products. Sealant categories shall be changed to reflect the decision in minute 3.1.11.15 (B) above.

Vote: Unanimous Affirmative  
Motion Passed

D) Desiccant Quantity – (**See Attachment #12**) There has been a growing recognition that current IGCC/IGMA guideline are somewhat outdated, do not fully address products with embedded desiccant and do not reflect today’s normal production, namely ½ vs. ¼-inch units. This has lead to an interest in a new approach for addressing desiccant in IG certification. Attachment #12 was DRAFTED as a possible approach to addressing these concerns. The issues were preliminarily discussed and then tabled for the day.

3.1.11.16 The meeting was adjourned at 5:22 pm for the day.

3.2.11.1 The meeting was reconvened by the Vice-chair, Cliff Monroe at 8:02 am.

3.2.11.2 Desiccant Quantity (Continued) – (**See Attachment #12**) The following comments were noted:

1. There was discussion whether the adsorption capacity should be based on the minimum supplier specification or the certificate of analysis number. There generally seemed support for use of the minimum supplier specification.
2. Concern raised over Edgetech’s S1 and S2 version products. It was recommended that the desiccant quantity and the Integrated Spacer System List (Minute 3.1.11.15 (B) above) shall include both S1 and S2.
3. Once products are identified, the ACPF may be used to evaluate increases or reduction in desiccant.
4. John Thomas and John Kent will work toward a DRAFT #2 based on discussion and forward to the CPD Guidelines and Equivalency Sub-Committee.

3.2.11.3 FS Classes – It has been earlier suggested that the generic class of integrated spacer systems “FS” for foam spacer should be further subdivided. It was noted that IGMA in connection with the IGMAC program has been addressing this issue and the group agreed to wait for further work at IGMA/IGMAC. Once that work reaches a conclusion the matter shall be forwarded to the IGCC CPD Guidelines and Equivalency committee for review and consideration.

3.2.11.4 (**See Attachment #13**) At this time Glasslam was allowed to distribute and discuss attachment #13. No specific action was requested or determined.

3.2.11.5 **General Discussion of Component Validation and IG Unit Equivalency**

(**See Attachment #14**) An open discussion was held utilizing the attachment to foster questions with the following comments noted:

1. There is too much work for the meeting time allotted.
2. The need for simplification was expressed.
3. More focus on equivalency or waiver process.
4. The mission of IGCC is to maintain the highest level of standards and it may be that some fabricators will look for a simplified approach.
5. The IGCC Board has an ongoing topic of IGCC visioning and intends to have more discussion on these issues.
6. Effort should be put toward leveling the playing field for the overall industry. NFRC is really the only umbrella organization.
7. More meeting time may not be the answer. It is more efficient to have more interim conference calls or webinars.

8. There was an interest in more meeting time and in conjunction with IGMA. The administrator was requested to conduct a survey.

*Subsequent to the meeting a survey was conducted resulting in a majority opinion that IGCC should maintain the 9 month meeting schedule, but do more with conference calls and webinars in the interim and when possible meet in conjunction with IGMA.*

#### 3.2.11.6 Gas Content Initial and After Weathering (GCIA)

(See Attachment # 15) A number of issues are under discussion regarding GCIA. These issues were reviewed with the following action/comments:

- A) Accuracy of SES – There has not been any new information from the manufacturer of the SES. ASTM is moving forward with a round robin study to gather more information on the accuracy of the instrument.
- B) Gas Content of Units with Muntins – A motion was made by Spindler/Harp to recommend to the ASTM committee to reduce the muntin configuration by 50% with an offset configuration to accommodate the cooling plate location and accurately represent the volume of bars present in a window.

Vote:           25     Affirmative  
                  0     Opposed  
                  2     Abstain

Motion Passed

- C) Production Unit Testing – The requirement to select and 3<sup>rd</sup> party test gas content of production units was eliminated from the IGCC/IGMA program at the June 2010 meeting. There was some discussion of adding requirements for in house gas content testing of production units. This will be addressed during a re-write of the IGMA TM-4000 document.
- D) Certification of Exotic Gases – After discussion a motion was made by Krahn/Spindler to 1) delete Guideline A.GC.1 and 2) develop DRAFT #2 certification guidelines in a fabrication and certification format addressing how are exotic gases tested identified and listed. The DRAFT shall be forwarded to the CPD Guidelines and Equivalency committee for review and interim approval.

Vote: Unanimous Affirmative  
Motion Passed

- E) MOCON Optech Update - An update on the product development effort of this instrument was provided at the meeting. The instrument still shows great promise for non-destructively measuring the gas content of an IG unit, though progress has been slower than anticipated.

#### 3.2.11.7 CN IG0310 Certification of Multiple Airspace Units

(See Attachment #16) A motion was made by Hutchinson/Thomas to accept CN IG0310 “Certification of Multiple Airspace Units” as annotated.

Vote: Unanimous Affirmative  
Motion Passed

### 3.2.11.8 **Certification of Curved or Bent Units**

(See Attachment #17) A motion was made by Wakefield/Ernst to accept Option #1 as presented, namely 1) A.GL.9 is not justifiable and should be deleted, and 2) Develop New guideline G.XX mirrored after “Spandrel”.

Vote: Unanimous Affirmative  
Motion Passed

### 3.2.11.9 **Blinds Between the Glass (BBG) IG Units**

(See Attachment #18) John Kent was requested to review the BBG issue at the upcoming NFRC meeting. After further discussion a motion was made by Pergler/Rodgers that IGCC shall request NFRC establish an oversight committee for discrepancies between the various IG certification programs specifically to include representatives of all “NFRC Listed” IG certifiers.

Vote:           3     Affirmative  
              18     Opposed  
              4     Abstain  
Motion Failed

A motion was made by Wakefield/D. Johnson to accept the proposed revisions to CN IG1009 “Certification of Air Space Material (ASM)” – Blinds.

Vote:           24     Affirmative  
              0     Opposed  
              1     Abstain  
Motion Passed

### 3.2.11.10 **G.30 Applied Coatings**

(See Attachment #19) A motion was made by Wakefield/Wright to accept guideline G.30 as revised.

Vote: Unanimous Affirmative  
Motion Passed

G.30 Applied Surface Coatings to an IG Spacer and Spacer Components

An insulating glass unit utilizing an applied surface coating to an IG spacer and spacer components shall be initially certified under the normal certification testing process. The application of the coating will be documented in the product audit report. A surface coating may be added to or removed from an already certified product utilizing the same certification number by applying guideline G.5. Applied surface coatings would include, but not be limited to paints, coatings and adhesion promoters. Spacer and spacer components with an embedded or etched into the surface color are not subject to this guideline and may be certified with the same IGCC®/IGMA® number. (Adopted 5/14/08, Modified 3/2/11)



#### 3.2.11.11 **Vacuum Glazing (VIG)**

**(See Attachment #20)** It was agreed to add a note to CN IG0211 Certification and Testing of Vacuum Insulating Glass (VIG) as follows:

- If the VIG is one component of an IG assembly, the assembly would need to be tested.

It was noted that China Standard JC/T 1079 – 2008 makes reference to VIG. Mr Wu Huiting agreed to review the China standard and provide John Kent with any applicable information.

#### 3.2.11.12 **IGCC/IGMA Certification Program Requirements Summary**

**(See Attachment #21)** The group was made aware of the availability of the attached document as a useful tool to abbreviate and simplify information specifically geared toward plant fabrications.

#### 3.2.11.13 **Review of Approved Certification Notes**

**(See Attachment #22)** As the complexity of IG certification has increased, the use of the “Certification Notes” concept has become more common. The attached index provides a list of available CN’s or Certification Notes.

#### 3.2.11.14 **Old Business**

Dan Braun, Chair of the fog test committee requested discussion and added clarification of the goal of his committee.

#### 3.2.11.15 **New Business**

None

#### 3.2.11.16 **Next Meeting**

During the meeting, it was determined that the next meeting would be held in the Phoenix AZ area in mid January 2012. Subsequent to the meeting and based on results of the survey reference in minute 3.2.11.5.8, The next meeting will still be held in the Phoenix AZ area but with the following schedule.

January 30 and 31, 2012 – IGCC  
February 1 and 2, 2012 - IGMA

#### 3.2.11.17 **The meeting was adjourned at 11:50 am.**