



safety glazing certification council

P.O. BOX 730
SACKETS HARBOR, N.Y. 13685
PHONE 315-646-2234
FAX 315-646-2297

MINUTES OF SEVENTY-FOURTH MEETING OF THE CERTIFICATION COMMITTEE APRIL 14 and 15th, 2005 SHERATON SAND KEY RESORT CLEARWATER, FLORIDA

Members and Alternates Present

		Date and Votes Present	
		<u>4/14/05</u>	<u>4/15/05</u>
AFG Industries	Mark Cody	1	1
American Flat Glass Dist.	Mark Cody	1	1
Arch Aluminum & Glass	Cliff Monroe	1	1
Cardinal Glass	Bernie Herron	1	1
Consolidated Glass	Carl Carmen	1	1
Guardian Fabrication Inc.	Kevin Olah	1	1
Guardian Industries Corp.	Kevin Olah	1	1
Guardian Canada Corp	Daphine Pedreschi	1	1
Oldcastle Glass	Rick Wright	1	1
PDC Glass & Metal	Tim Moore	1	1
Temperbent Glass	Richard Paschel	1	1
Viracon	Lyle Krohnberg	1	1
JE Berkowitz LP	Jim Stinsman	1	1
UGC	Tim Moore	1	1

Members by Virtue of Being a Director

Public Interest	Bill Nugent	1	1
Public Interest	Elaine Rodman	1	1
Public Interest	Don Vild	1	1
Public Interest	Peter Weismantle	1	1
Public Interest	June Willcott	1	1
		<hr/>	<hr/>
		Votes	
		19	19

Guests

Legal Counsel

Schiff, Hardin LLP	William M. Hannay	Present	Present
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Administrative Staff

AMS, Inc.	John Kent	Present	Present
		<hr/>	<hr/>
		Persons Present	
		18	18

- 4.14.05.1 The meeting was called to order at 1:15 by Chairman Mark Cody and a quorum declared. All present introduced themselves.
- 4.14.05.2 The minutes of the October 5 and 6, 2004 meeting were reviewed. A motion was made by Paschel/Herron to approve the minutes as submitted.

Vote: Unanimous Affirmative
Motion Passed

4.14.05.3 **Board of Directors' Report - R. Paschel**

- A. The Board is looking for input from the Certification Committee regarding an approach for approval of "Non-US" Laboratories. A request for SGCC Lab approval has been received from an off shore test facility. The Board will be considering how to proceed.
- B. The Board membership was reviewed.
- C. The Board continues to discuss current proposed changes to the ICC building code for safety glazing.
- D. Question was raised regarding availability of Board minutes to non-Board members. It was stated that meeting minutes would be provided upon request and subject to legal review.

NOTE: Although it was not discussed during this meeting, the Board has directed that the following report be included in these minutes. At the April 15th, 2005 SGCC Board meeting, an SGCC Certification administrative fee increase of approximately 10% was voted on and approved. It was noted that this is the first administrative fee increase in over 10 years. This increase will not take effect until the First of 2006 (F06) billing cycle.

4.14.05.4 **Financial Report – E. Rodman**

(See Attachment #1)

4.14.05.5 **Legal Counsel's Report – W. Hannay**

- A. SGCC Anti-Trust Guidelines were distributed to the group and read out loud (See Attachment #2).
- B. SGCC, a corporation incorporated under the Illinois General Not For Profit Corporation Act, is in good legal standing in the State of Illinois with no pending or threatened litigation.
- C. Certificate of Insurance compliance continues to be pursued. (See Attachment #3)

4.14.05.6 **Administrator's Report – J. Kent**

(See Attachment #4)

4.14.05.7 **Quick Action Sub-Committee Report**

No Report

This committee is currently comprised of the following positional members:

SGCC President	-	Currently Richard Paschel
SGCC Certification Committee Chair	-	Currently Mark Cody
SGCC Administrative Manager	-	Currently John Kent
SGCC Public Interest Member	-	Currently June Willcott

4.14.05.8 **ICC Code Change Proposal**

(See Attachment #5)

The current proposed code change wording as presented in attachment #5 was reviewed and the group was asked for direction on how SGCC should proceed, as to support or opposition to the GICC proposals. Generally, the group felt that the code should remain as GICC has proposed with self-certification, "manufacturer's designation" as a viable option for code compliance. It was stated that the SGCC Board remains committed to 3rd party certification and testing of products and is considering various options to forward and encourage the concept. After discussion, the consensus was that those in attendance at the SGCC Certification Committee do not support a proposal to the building code for mandatory 3rd party certification but rather would support and encourage the Architectural Community to specify SGCC Certification.

4.14.05.9 **Testing Failure Review**

(See Attachment #6)

Upon review of the data presented, it was re-affirmed that the method of selection did not seem to have a negative effect on test failure rates. The effect of size tested will be monitored. It was agreed to continue to evaluate this data. The data will also be further considered later in this meeting during discussions on certification of laminated glass.

4.14.05.10 **Quality Assurance Program Requirements**

(See Attachment #7)

The following subcommittee was formed to work on this activity:

Bob Spindler
Cliff Monroe
Rick Wright
Lyle Krohnberg

Current SGCC requirements for a quality assurance system were reviewed. After discussion, the sub-committee was requested to expand upon the 4 current requirements, and to add a 5th requirement, e) documentation and retention of product testing records. The sub-committee shall present their recommendations at the next meeting.

Further, it was agreed to delete the following text from the Certified Products Directory (CPD) page 9, Quality Assurance Program : "SGCC does not define the type or details of a program, simply that one must be in place."

4.14.05.11 **Testing Laboratory Status**

(See Attachment #8)

The SGCC Testing Laboratory Status report was reviewed and current requirements for laboratory acceptance discussed. After discussion a motion was made by Paschel/Willcott to modify the laboratory audit, to require the lab to test glass during the Administrator's audit.

Vote: Unanimous Affirmative
Motion Passed

A motion was made by Monroe/Paschel to approve the current list of labs as submitted.

Vote: Unanimous Affirmative
Motion Passed

4.14.05.12 The meeting was recessed at 4:50 pm

4.15.05.1 The meeting was reconvened at 8:30 am

4.15.05.2 **Approval of Non-US Laboratories**

(See Attachment #9)

Comments provided in attachment #9 were reviewed. In general there was concern expressed regarding the cost (time and expense) to approve such labs, and issues regarding independence and conflict of interest. After discussion a motion was made by Carmen/Moore that at this time SGCC shall continue to affirm that all testing for SGCC certification shall be done by laboratories located in the US.

Vote: 18 Affirmative
1 opposed
Motion Passed

4.15.05.3 **Certification of Laminated Glass**

(See Attachment #10)

The history of this topic was reviewed and the results of the GANA survey discussed. Hearing no specific recommendation, the issue was tabled until the fall meeting.

4.15.05.4 **Implementation of ANSI Z.97.1 2004**

(See Attachment #11)

SGCC received word in early March, 2005 that the new version of the ANSI standard, 2004, would soon be publicly available. SGCC had earlier agreed that upon issuance of the new Z97, certification would be conducted to the new standard. The implementation schedule as presented in attachment #11 was reviewed and agreed to. The Administrator was directed to send a memo to all program participants explaining issues relate dto implementation of the new standard. Discussion continued regarding labeling requirements and the need for a permanent label and

date of manufacture. After discussion, a motion was made by Cody/Moore to add the following note to be added to the CPD, Labeling requirements: "These are the minimum requirements for SGCC certification, other jurisdictions, standards and codes may have additional requirements."

Vote: Unanimous Affirmative
Motion Passed

A motion was made by Vild/Cody that for SGCC certification of laminated glass, the weathering requirements of ANSI Z97.1-2004 need to be performed initially only and will be accepted by SGCC from the glass fabricator or a supplier (i.e. interlayer manufacturer).

Vote: Unanimous Affirmative
Motion Passed

A motion was made by Paschel/Monroe to amend SGCC guideline G.9 to allow a minimum selection size of 24 X 30-inches to conform to ANSI Z97.1-2004.

Vote: Unanimous Affirmative
Motion Passed

A motion was made by Carmen/Rodman that with the new edition of ANSI Z97.1, the Administrator shall be directed to make editorial changes to the CPD to reflect the new standard date.

Vote: Unanimous Affirmative
Motion Passed

4.15.05.5 ANSI/CPSC Test Equipment

At earlier meetings, the idea of SGCC compiling a list of sources for ANSI Z97.1 and CPSC 16 CFR 1201 test equipment was discussed. It was agreed that the SGCC approved test labs may be the best source for safety glazing fabricators to contact to purchase such equipment. The Administrator was directed to contact all SGCC approved test labs to determine their availability to build/provide such equipment.

4.15.05.6 Standardized Certificate or Affidavit

(See Attachment #12)

SGCC has been requested to consider creating a standardized certificate or affidavit for safety glazing that does not bear a permanent label per section 2406.2 of the IBC. After discussion, the following position was established:

"SGCC requires certified safety glazing to bear a permanent label. SGCC does not recommend or endorse the omission of a permanent mark of label. Although some jurisdictions allow the use of removable, non-permanent labels or certificates, these labels are too easily lost or misplaced. In consideration of the life-safety nature of safety glazing, permanent, life-time identification and labeling is viewed by SGCC as vital."

4.15.05.7 **Old Business**

None

4.15.05.8 **New Business**

None

4.15.05.9 **Next Meeting**

After discussion it was agreed to hold the next meeting in Chicago, IL on or about October 20 and 21, 2005.

4.15.05.10 The meeting was adjourned by the chair at 11:20 am.



safety glazing certification council

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ATTACHMENT #1

FUND BALANCE

Fund Balance July 1, 2004

\$157,209

Revenues:

Interest	5136
Business income (impactor bag)	760

+ 5,896
\$163,105

Expenses:

Bank Charges	323
Accounting Expense	3,000
Board of Directors Insurance	5,607
Legal	8,114
Marketing	6,783
Meeting Expense	3,463
Miscellaneous	5
Web Page Expense	3,450

- 30,745

Fund Balance March 30, 2005

\$132,360

INVESTMENTS

Investments	Date Opened	Interest Rate	Date of Maturity	Current Value
CD#1-First National Bank of Dryden	5/29/95	2.58%	5/28/06	\$72,570
CD#3-National City Bank	8/9/00	2.15%	12/17/05	\$97,725
CD#6-MBNA Investor Services	12/11/00	2.82%	12/11/05	\$52,145
CD#7-Redwood National Bank	11/7/01	2.27%	11/14/06	\$93,972
CD#8-Community Investment Services	11/21/01	2.25%	6/16/05	\$98,655

SGCC
Balance Sheet
As of March 30, 2005

Mar 30, 05

ASSETS

Current Assets

Checking/Savings

1000 · HSBC Checking	17,826.16
1050 · HSBC Savings Acct (1.5% Int.)	16,368.36
1055 · WSB Savings (2.03% Int)	29,698.92
1060 · Investments - CD#1 (2.58% Int.)	72,570.25
1083 · Investments - CD #8 (2.25%)	98,854.44
1084 · Investments - CD #7 (2.27%)	93,971.98
1086 · Investments - CD#3 (2.15% Int)	97,725.25
1089 · Investments - CD #6 (2.82% Int)	52,144.77

Total Checking/Savings 479,160.13

Accounts Receivable

1100 · Accounts Receivable 6,432.50

Total Accounts Receivable 6,432.50

Total Current Assets 485,592.63

TOTAL ASSETS 485,592.63

LIABILITIES & EQUITY

Liabilities

Current Liabilities

Accounts Payable

2000 · Accounts Payable 50.00

Total Accounts Payable 50.00

Other Current Liabilities

2011 · Deferred administrative inco... 62,520.50

2012 · Deferred Business Acct Inc... 31,740.00

2013 · Deferred testing income 258,921.82

Total Other Current Liabilities 353,182.32

Total Current Liabilities 353,232.32

Total Liabilities 353,232.32

Equity

3900 · Fund Balance 157,209.17

Net Income -24,848.86

Total Equity 132,360.31

TOTAL LIABILITIES & EQUITY 485,592.63

SGCC
Statement of Activity
July 1, 2004 through March 30, 2005

Jul 1, '04 - Mar 30, 05

Ordinary Income/Expense

Income

4000 · Administrative Income	224,747.50
4100 · Testing Income	294,211.00
4300 · Interest Income	5,178.43
4500 · Impactor Bag Income	760.00

Total Income	<u>524,896.93</u>
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Expense

6000 · Bank Charges	323.51
6100 · Admin exp	224,747.50
6300 · Testing expense	294,211.00
6600 · Accounting expense	3,000.00
6650 · Legal expense	8,114.50
6700 · BOD Insurance	5,607.00
6800 · Marketing Expense	6,783.00
6900 · Miscellaneous	5.00
6945 · Meeting expense	3,462.61
6950 · Web Page Expense	3,450.00

Total Expense	<u>549,704.12</u>
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Net Ordinary Income	-24,807.19
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Other Income/Expense

Other Income

7100 · Increase/dec in Market Value	-41.67
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Total Other Income	<u>-41.67</u>
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Net Other Income	<u>-41.67</u>
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Net Income	<u><u>-24,848.86</u></u>
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SGCC ANTITRUST COMPLIANCE GUIDELINES

A. It is the policy of SGCC to comply fully with the antitrust laws applicable to trade association activities.

B. In furtherance of this policy, all SGCC meetings are attended by SGCC legal counsel, and the SGCC's officers, directors, and Administrator periodically consult with SGCC legal counsel.

C. Each participant in SGCC activities has a responsibility to avoid any improper conduct from an antitrust standpoint. The following guidelines will assist in meeting this responsibility.

1. SGCC meetings are held solely to manage and operate SGCC and its certification program, in accordance with SGCC's corporate purposes, the SGCC Bylaws, and the Certified Products Directory.

2. No participant in SGCC activities, including the certification program and standards development efforts (such as ANSI Z97.1), should attempt to misuse his or her position within SGCC to gain an unfair competitive advantage on behalf of his or her company.

3. To avoid antitrust problems (either civil or criminal), the following legally-sensitive subjects should not be discussed by competitors at or during SGCC meetings:

- a. Future marketing plans of specific competitors;
- b. Any complaints or business plans relating to specific customers, suppliers, geographic markets or products;
- c. Agreements between competitors to allocate markets, customers or products;
- d. Agreements between competitors to refuse to deal with a supplier or a customer;
- e. Purchasing plans or bidding plans (except privately between two parties with a vertical commercial relationship such as supplier and customer); or
- f. Current or future price information and pricing plans, bidding plans, refund or rebate plans, discount plans, credit plans, specific product costs, profit margin information or terms of sale.

Any question regarding the legality of a discussion topic or business practice should be brought to the attention of SGCC legal counsel* or your company's individual legal counsel.

April 2005

* William M. Hannay, Schiff Hardin LLP, 7200 Sears Tower, Chicago, IL 60606; (312) 258-5617; (312) 258-5700 (fax); e-mail: whannay@schiffhardin.com.

Company	Cert. Exp.	Corresp	Update
ACI Distribution	07/01/05		06/28/04
AFG Industries, Inc.	01/01/05	01/04/05 03/25/05	01/24/04
AFGD, Div. of AFG Inds. Ltd.	01/01/05		01/24/04
All Team Glass & Mirror, Ltd.	08/24/05		09/21/04
AMSCO Windows	01/01/06		01/04/05
Anthony International	09/01/05		09/14/04
Arch Aluminum (American Glassmith/Sumiglass)	04/28/05		05/04/04
Berkowitz, J.E.	05/01/05		05/11/04
Bronco Industries, Inc.	02/06/05		04/08/04
Cameron Glass, Inc.	07/01/05		06/22/04
Cardinal IG, Greenfield, IA	10/01/05		10/15/04
Cat I Manufacturing, Inc.	11/08/05		11/15/04
Changshu Hard Glass	07/21/05		07/29/04
Changshu Zhongcheng Building Material Co., Ltd.	04/14/05		07/06/04
Cheil Glass Industrial Co., Inc.	12/10/05		12/21/04
China Glass USA, Inc.	04/15/05		06/07/04
Coastal Glass Distributors	10/01/05		10/05/04
Colonial Mirror & Glass Corp	05/31/05		07/20/04
Commercial Insulating Glass Co.	05/01/05		07/08/04
Consolidated Glass Corporation	11/15/07		12/14/04
Contour Industries, Inc.	01/01/06		12/14/04
Coraglass, Inc.	12/31/04	01/04/05 03/25/05	12/23/03
Craftsman Tempered Glass	08/01/05		01/12/05
Desert Glass Products, Inc.	10/25/05		02/09/05
Dong Sung Glass	12/27/04	01/04/05 03/25/05	02/09/04
Dongli Tempered Glass	09/30/05		01/06/05
Downey Glass Industries, LLC	11/08/04	01/04/05 03/25/05	09/22/04
Downey Glass (Oldcastle)	09/01/05		08/23/04
Eckelt Glas GmbH	01/01/05	04/14/04 06/29/04	04/13/04
Edge Seal Technologies	01/07/06		01/18/05
EFCO Corp.	10/01/05		10/18/04
Engineered Glass Products L.L.C.	06/01/05		06/07/04
Floral Glass & Mirror, Inc.	11/01/04	01/04/05 03/25/05	11/19/03
Florida Laminated and Tempered Glass d/b/a FLT Glass	06/28/04	09/15/04 01/04/05	08/01/03
FTG of NC LLC	12/21/05		12/14/04
Galaxy Glass Corp., Inc.	11/21/04	01/04/05 03/25/05	01/31/04
Gemtron Corp.	09/30/05		11/20/04
GGI Glass Distributors Corp.	01/10/05	03/25/05	04/25/04
Glass Distributors of America (Oldcastle)	09/01/05		08/23/04
Glass Dynamics, Inc.	12/10/05		01/10/05
Glass Innovations LLC	07/16/05		10/04/04
Glass South Africa f/k/a PFG Toughened Glass	04/01/05		07/25/04
Glass, Inc.	12/19/05		01/04/05
Goldray, Inc.	05/22/05		01/21/05
Guardian Industries/Fab	06/01/05		06/07/04
Haida Safety Glass, Ltd.	10/20/05		10/19/04

SGCC Certificates of Insurance
April 12, 2005

Company	Cert. Exp.	Corresp	Update
Hoffer's (Oldcastle)	09/01/05		08/23/04
Jiangyin Jingcheng High Quality Glass	07/10/05		02/09/05
Laminated Glass Corp. (Oldcastle)	09/01/05		08/23/04
Laurier Glass Ltd.	02/04/06		03/22/05
Mid Ohio Tempering	08/24/05		10/01/04
Milgard Tempering, Inc.	06/30/05		06/28/04
Mirror Crafters Custom Beveling, Inc.	05/30/05		04/12/05
Mirror Factory Inc.	04/01/05		04/13/04
Multiver	12/03/05		08/20/04
Nashville Tempered Glass Corp.	12/01/05		03/31/05
North American Glass Industries, Inc. (Oldcastle)	09/01/05		08/23/04
Oldcastle Glass Group*	09/01/05		08/23/04
Patio Enclosures, Inc.	07/05/05		07/12/04
PDC Glass & Metal Services	08/24/05		10/01/04
PGT Industries	01/01/06		12/29/04
PPG Industries, Inc.	Self-insured		12/04/96
Prelco, Inc.	05/07/05		10/08/04
PT Sinar Rasa Kencana	07/10/05		03/20/05
PT Surya Adhitia Fortuna Glass	07/10/05		09/22/04
PT Tunggal Majuasri Glass	02/11/06		02/24/05
Qinhuangdao Jixiang Glass Industry Technological Co., Ltd.	11/25/05		02/09/05
Quaker Window Products	04/01/05	01/27/05 03/25/05	01/27/05
Republic Windows & Doors, Inc.	02/01/06		02/08/05
Shanghai Yaohua Pilkington Glass Co.	12/11/03	01/15/04 06/29/04	01/18/03
Shaw Glass Co., Inc.	12/31/05		01/12/05
SIGCO, Inc.	08/30/05		01/13/05
Sovis North America	03/01/05		03/09/04
Specialty Building Products	04/01/05		01/18/05
Sterling Plumbing/Kohler Company	11/01/04	01/04/05 03/25/05	12/18/00
Swift Glass Co., Inc.	01/01/05	03/25/05	02/17/04
Syracuse Glass Co., Inc.	08/06/05		08/16/04
S.A. Bendheim Co., Inc.	01/11/06		04/04/05
Techni-Glass, Inc.	09/22/05		08/31/04
Tecnoglas	09/12/05		09/21/04
Temperbent Glass	03/01/05		07/20/04
Tempered Glass, Inc.	08/24/05		10/01/04
Tempglass Group, Inc. (Oldcastle)	09/01/05		08/23/04
TRACO (Three Rivers Aluminum)	04/01/05		04/14/04
Triple Seal Ltd.	02/28/06		04/07/05
United Plate Glass Co., Inc.	01/01/05	03/25/05 04/01/05	08/16/04
Unitex Glass Corp.	08/01/05		10/04/04
Vetreria Valentini S.R.L.	12/31/05		02/11/05
Vidrieria Argentina	04/01/05		02/01/05
Vidrio Saint Gobain de Mexico	07/01/05		10/26/04
Vidrios Lirquen	03/31/05		09/23/04
Viracon, Inc.	03/01/06		03/14/05
Virginia Glass Products Corp.	08/01/05		08/16/04
Vitemco - Glasswall LLC	02/01/06		02/28/04
Vitrierie April (Oldcastle)	09/01/05		08/23/04

SGCC Certificates of Insurance
April 12, 2005

Company	Cert. Exp.	Corresp	Update
Westshore Glass	06/01/05		08/17/04

ADMINISTRATIVE REPORT**Sheraton Sand Key Resort****April 13 and 14, 2005****January 1, 2005 Certified Products Directory (CPD)**

<i>Cut-off Date</i>	<i>Copies</i>	<i>Subscription List Mailing</i>
January 1, 2005	2300	2126

Certification Removed Since Publishing January 1, 2005 CPD**ANSI Program****Engineered Glass Products LLC, Chicago, IL**

SGCC #2588 1/8-inch TTG

CPSC Program

None

Composite Program**American Flat Glass Dist., Richmond, VA**

SGCC #2523 3/16-inch TPG

Changshu Da-Yang Special Glass, Changshu City, China

SGCC #2926 1/2-inch TTG

SGCC #2927 5/8-inch TTG

Glass-Tex Industries, Magnolia, TX

SGCC #2617 1/8-inch TTG

Patio Enclosures, Inc., Macedonia, OH

SGCC #2059 1/4-inch TTG

Triple Seal Ltd., Toronto, ON, Canada

SGCC #2483 3/16-inch TTG

Certified Products NOT in January 1, 2005 CPD**ANSI Program**

None

CPSC Program

None

Composite Program**Bendheim Company, Inc., Passaic, NJ**

SGCC #2818 1/4-inch TTG

SGCC #2819 3/8-inch TTG

SGCC #2820 1/2-inch TTG

SGCC #2971 5/32-inch TTG

SGCC #2972 5/32-inch TPG

SGCC #2973 3/8-inch TPG

Cardinal LG, Amery, WI

SGCC #2976 7/32-inch LTG

Coraglass, Inc., Tuscaloosa, AL
SGCC #2944 1/4-inch TPG
SGCC #2945 3/8-inch TPG

GGI Glass Distributors, Secaucus, NJ
SGCC #2928 5/32-inch TTG

Mirror Crafters Custom Beveling, Inc., Pompano Beach, FL
SGCC #2989 1/8-inch TTG
SGCC #2990 3/16-inch TTG
SGCC #2991 1/4-inch TTG
SGCC #2992 3/8-inch TTG
SGCC #2993 1/2-inch TTG
SGCC #2994 3/4-inch TTG
SGCC #2995 5/32-inch TPG
SGCC #2996 3/16-inch TPG

PT Tunggal Majuasri Glass, Jakarta, Indonesia
SGCC #2950 1/4-inch LTG

PT Sinar Rasa Kencana, Jakarta, Indonesia
SGCC #2929 3/8-inch TTG

Quaker Window Products, Inc., Freeburg, MO
SGCC #2968 1/8-inch TPG
SGCC #2969 5/32-inch TPG
SGCC #2970 1/4-inch TPG

Qinhuangdao Jixiang Glass Industry Techonoligical Co., Ltd., P.R. China
SGCC #2974 1/8-inch TTG

Vitemco S.A.-Glasswall, Inc., Cundianamarca, Colombia
SGCC #2977 1/4-inch TTG
SGCC #2978 3/8-inch TTG
SGCC #2979 1/2-inch TTG

Name Changes

Glass-Tex Industries, Magnolia, TX
n/k/a Arch Aluminum & Glass Co., Magnolia, TX

Administrative Activity

October 18, 2004	Mailing of Lab Memo (New License Agreement)
November 2004	Mailing of Certification Minutes for October 2004 Meeting
January 2005	Mailing of SGCC Certified Products Directory
January 30, 2005	SGCC Mailing of April 2005 Meeting Notice
April 1, 2005	SGCC Mailing of L05 invoices

Requests to become an SGCC® Approved Laboratory

See Certification Committee Meeting Agenda #12

SGCC Participation Comparison

	F04 (AS OF 4/9/04)	L04 (AS OF 9/23/04)	F05 (AS OF 3/29/05)
No. of Participating Plants	153	157	164
No. of Offshore Plants	21	23	31
No. of Licensees	92	95	100
Total Certified Products	840	850	867
ANSI Only	130	129	125
CPSC Only	62	58	58
COMPOSITE	648	663	684

SGCC Website Report

	January 2005	February 2005
Total Visitors	1,958	2,347
Sections Most Visited		1) Who's Certified 2) Initial Process 3) Approved Labs
Download of CPD		445

SGCC Website Report – February 2005

Visits: SGCC's website drew 2,347 visitors in February, a significant increase on the 1,958 visits in January. The "Who's Certified" page drew the most visits again, with just over 30% of all visitors viewing that page. Running a distant second in popularity was the "Initial Certification Process" and the "Approved Labs" page. The new search implemented by ASC was executed 252 times during the month of February, a significant increase over January. The July 2004 version of the Certified Products Directory PDF placed online by ASC was downloaded 445 times in the month of February.

Search Engine Report

The top referring search engines that sent visitors to your site were:

1. Google
2. Yahoo
3. MSN
4. AOL
5. CompuServe

Analysis

After two months' worth of data, it continues to appear that the site is accomplishing one important goal: putting out the list of certified products. With the "who's certified" section drawing the majority of visitors, as well as the download of products, SGCC is doing a good job of publicizing those who are certified. Also, it appears as if a small number of visitors are either a) checking into the back information on what it takes to become certified so that the process is validated in the visitor's opinion, or b) learning to find out what it takes to become certified for themselves. This is further evident by the increase in the number of visits to the Certification Process page, as well as the Certified Labs page. Additionally, the increase in visitors suggests that SGCC is starting to become publicized enough to draw larger crowds. We will keep an eye on this trend, but if you could provide feedback as to any marketing you may be doing right now in the trades (even if that marketing is a letter to the editor or perhaps an article or mention in a trade, not necessarily standard advertising), it would help in judging the effectiveness of the current efforts, as well as any potential future activities in which you may wish to engage.

More trends should become apparent as we move forward through the year and have more data to compare.



January 17th, 2005

Mr. Roger Skluzacek
President
Glazing Industry Code Committee
2945 SW Wanamaker Drive, Suite A
Topeka, KS 66614-5321

Re: GICC Proposed Building Code Change

Dear Mr. Skluzacek:

As you will recall, Carl Carmen, Past-President of the SGCC, wrote you on May 14, 2004, indicating that, in the opinion of the SGCC Board and Certification Committee, (1) aspects of the code, as currently written, are unclear; and (2) safety glazing manufacturers should be performing objective and competent testing.

At the SGCC's most recent meeting, our Board and Certification Committee reviewed the code changes proposed by the GICC. While the SGCC appreciates and applauds the GICC's efforts to clarify the current code language, we are not comfortable with your proposal since it does not establish clear requirements for objective and competent product testing. There are many advocates in favor of a code change requiring a more formalized product testing protocol, and as this is a very complex and volatile issue, we believe it warrants further discussion. We therefore feel that it would be in the best interest of everyone concerned if the GICC withdrew its proposal until such time as the testing issue could be appropriately included in the proposal.

In order to achieve the desired industry consensus on testing, perhaps the SGCC and the GICC could each form a small subcommittee to work on this issue and then arrange for the subcommittees to meet jointly as a combined task group to iron out the differences. We could thus achieve a code change, which includes objective and competent product testing that would be strongly supported across the entire glass industry.

I look forward to hearing from you at your earliest opportunity.

Very truly yours,
SAFETY GLASS CERTIFICATION COUNCIL

Richard A. Paschel
President

Copy: W.H. Hannay, Esq.

AMS Staff

From: Michael Fischer [MFischer@wdma.com]
Sent: Tuesday, April 12, 2005 10:30 AM
To: John Kent
Subject: SGCC

S209-04/05

2403.1

Proponent: William E. Koffel, PE, Koffel Associates, Inc.,
representing Glazing Industry Code Committee

Revise as follows:

2403.1 Identification. Each pane shall bear the manufacturer's label mark designating the type and thickness of the glass or glazing material. The identification shall not be omitted unless approved and an affidavit is furnished by the glazing contractor certifying that each light is glazed in accordance with approved construction documents that comply with the provisions of this chapter. Safety glazing shall be identified in accordance with Section 2406.2.

Each pane of tempered glass, except tempered spandrel glass, shall be permanently identified by the manufacturer. The identification label mark shall be acid etched, sand blasted, ceramic fired, embossed or shall be of a type that once applied cannot be removed without being destroyed. Tempered spandrel glass shall be provided with a removable paper marking by the manufacturer.

Reason: Chapter 17 distinguishes between the requirements for a label, mark, and manufacturer's designation. Although Chapter 24 has used the word label, neither the Legacy Codes nor common interpretation of the IBC has required the use of a "label" as defined in Chapter 17. The purpose of the change is to use the correct terminology consistent with the defined terms in Chapter 17. It should be noted that a companion change has been submitted to revise Section 2406.2.

S211-04/05

Committee Action: Approved as Modified

Modify the proposal as follows:

2403.1 Identification. Each pane shall bear the manufacturer's label designating the type and thickness of the glass or glazing material. The identification shall not be omitted unless approved and an affidavit is furnished by the glazing contractor certifying that each light is glazed in accordance with approved construction documents that comply with the provisions of this chapter. Safety glazing shall be identified in accordance with Section 2406.2.

Each pane of tempered glass, except tempered spandrel glass, shall be permanently identified by the manufacturer. The identification label shall be acid etched, sand blasted, ceramic fired, laser burned etched, an embossed mark or shall be of a type that once applied cannot be removed without being destroyed. Tempered spandrel glass shall be provided with a removable paper marking by the manufacturer.

Committee Reason: This code change makes the wording of section 2403.1 consistent with the rest of chapter 24. The modification is editorial in nature.

4/12/2005

S215-04/05

2406.2

Proponent: William E. Koffel, PE, Koffel Associates, Inc., representing Glazing Industry Code Committee

Revise as follows:

2406.2 (Supp.) Identification of safety glazing. Except as indicated in Section 2406.2.1, each pane of safety glazing installed in hazardous locations shall be identified by a label manufacturer's designation specifying the labeler who applied the designation, whether the manufacturer or installer, and the safety glazing standard with which it complies, as well as the information specified in Section 2403.1. The label designation shall be acid etched, sand blasted, ceramic fired, laser burned, or an embossed mark, or shall be of a type that once applied, cannot be removed without being destroyed. A label as defined in Section 1702.1 and meeting the requirements of this section shall be permitted in lieu of the manufacturer's designation.

Exceptions:

1. For other than tempered glass, labels manufacturer's designations are not required, provided the building official approves the use of a certificate, affidavit or other evidence confirming compliance with this code.
2. Tempered spandrel glass is permitted to be identified by the manufacturer with a removable paper label designation.

Reason: Chapter 17 distinguishes between the requirements for a label, mark, and manufacturer's designation. Although Chapter 24 has used the word label, neither the Legacy Codes nor common interpretation of the IBC has required the use of a "label" as defined in Chapter 17. In fact, over the past few code change cycles proposals to require independent third party testing of safety glazing have been disapproved. Based upon this action, the proposed revisions are editorial in nature to clarify the current and historic intent of these sections. The purpose of the change is to use the correct terminology consistent with the defined terms in Chapter 17. It should be noted that a companion change has been submitted to revise Section 2403.1.

The proposed deletion of the word "or" is an editorial correction to what was published in the Supplement.

John: Note that S210 dealing with thickness was also considered but disapproved by the committee.

Here is the "official" WDMA response to the issue:

WDMA is concerned about product safety. Any future code changes that would mandate more stringent code requirements, and thus add cost to the manufacturing process should be based upon sound technical justification. Proposals purporting to improve the safety of the built environment should demonstrate a problem or safety hazard with the current code requirements, and should demonstrate how the proposal would solve the problem.

WDMA is interested in continuing the dialogue regarding window and glazing safety with any interested parties.

Regards,
Mike

Michael Fischer
WDMA Director of Codes and Regulatory Compliance

4/12/2005

Comments made to John Kent recently by Architect

Upon further investigation, and a review of our project specifications for glazing products incorporated into the work of this project, the following reference was found in Part 1.6 H (Quality Assurance) of Specification Section 08800 in the project manual;

"Safety Glass: Category II materials complying with testing requirements in 16 CFR 1201 and ANSI Z97.1.

1. Subject to compliance with requirements, permanently mark safety glass with certification label of Safety Glazing Certification Council or other certification agency acceptable to authorities having jurisdiction."

Based upon this citation, a review of SGCC label requirements and SGCC guideline G.18, both contained in the 2004 edition of the SGCC Certified Products Directory, I believe that project specifications require individual marking of laminated safety glazing installed on the affected floors of the hospital. (See SGCC Guideline G.18)

On the issue of permanent marking. As a practical matter and from my perspective (i.e. Quality Assurance/Field Architect) as one responsible for verifying that construction is in compliance with applicable federal, state, local and project requirements, I believe that individual labeling/permanent marking of such assemblies is essential to ensuring compliance. Also, I would think that from a medical staff/patient care perspective, permanent marking would be re-assuring in that staff would realize that the glass posed little threat to the patient or the caregiver.

10.6.04.3 Testing Failure Review

Upon review of the data presented, it was re-affirmed that the method of selection did not seem to have a negative effect on test failure rates. It was agreed to continue to evaluate this data. The Administrator was directed to break out tempered vs. laminated failures, and boil vs. impact and to report participant and inspector failures as a percent of total selections and vs. percent of failures.

Discussion continued regarding center-punch testing vs. bag drop testing as it relates to particle size. There was general consensus in the group that a center-punch break will yield larger particles.

Number of Selections and Failures
(% Total Failure / % Total Products)

		2000	2001	2002	2003	2004
Selections	Total	1281	1373	1470	1536	1620
	Participant	925 (72)	755 (55)	627 (43)	365 (24)	682 (42)
	Inspector	356 (28)	618 (45)	843 (57)	1171 (76)	938 (58)
Product Failures % Total Failures	Total	21 (1.6)	33 (2.4)	26 (1.8)	31 (2)	36 (2.2)
	Participant Selected	7 (33/.5)	25 (76/1.8)	21 (81/1.4)	17 (55/1.1)	24 (67/1.5)
	Inspector Selected	14 (67/1.1)	8 (24/.6)	5 (19/.4)	14 (45/.9)	12 (33/.7)
	34x76	20 (95)	30 (91)	23 (88)	16 (52)	25 (69/1.5)
	Odd Size	1 (5)	3 (9)	3 (12)	14 (45)	6 (17/.4)
	16x30			0	1 (3)	5 (14/.3)
Tempered Failures						24 (67/1.5)
Laminated Impact Failures						4 (11/.2)
Laminated Boil Failures						8 (22/.5)

2000

	Failures	TTG	TPG	LTG
1/8" (3mm) Thick	6	5	1	
5/32" (4mm) Thick	1	1		
3/16" (5mm) Thick	6	3	3	
1/4" (6mm) Thick	4	3		1
3/8" (10mm) Thick	2	2		
1/2" (12mm) Thick	2	1		1

2001

	Failures	TTG	TPG	LTG
1/8" (3mm) Thick	8	6	1	1
5/32" (4mm) Thick	7	4	2	1
3/16" (5mm) Thick	6	2	4	
7/32" (5.6mm) Thick	2		1	1
1/4" (6mm) Thick	5	4		1
5/16" (8mm) Thick	1			1
3/8" (10mm) Thick	1	1		
1/2" (12mm) Thick	3	1		2

2002

	Failures	TTG	TPG	LTG
1/8" (3mm) Thick	5	5		
5/32" (4mm) Thick	5	2	1	2
3/16" (5mm) Thick	9	7	1	1
1/4" (6mm) Thick	4	3		1
3/8" (10mm) Thick	2	2		
1/2" (12mm) Thick	1	1		

2003

	Failures	TTG	TPG	LTG	LPG
1/8" (3mm) Thick	8	6	2		
5/32" (4mm) Thick	6	3	2	1	
3/16" (5mm) Thick	7	4	3		
1/4" (6mm) Thick	6	3		3	
3/8" (10mm) Thick	2	2			
7/16" (11mm) Thick	1				1
1/2" (12mm) Thick	2	1		1	

2004

	Failures	TTG	TPG	LTG
1/8" (3mm) Thick	8	7	1	
5/32" (4mm) Thick	3		3	
3/16" (5mm) Thick	9	3	6	
7/32" (5.6mm) Thick	1			1
1/4" (6mm) Thick	7	3		4
9/32" (7mm) Thick	1			1
5/16" (8mm) Thick	3			3
1/2" (12mm) Thick	4	1		3

As of 3/30/05 SGCC has 861 certified products

Tempered = 797 or 93%

Laminated = 64 or 7%

Laminated: $12 / 64 \times 2 = 9.4\%$ failure rate (approx.)

Tempered: $24 / 797 \times 2 = 1.5\%$ failure rate (approx.)

AMS

From: AMS [ams@nnymail.com]
Sent: Monday, February 14, 2005 8:04 PM
To: Bob Spindler; Cliff Monroe; Rick Wright; Lyle Krohnberg; Tim Moore; Pete Anderson
Cc: Mark Cody
Subject: SGCC Quality Manual group

The task of this group was to "develop minimum voluntary recommendations for quality systems and product testing for safety glazing products".

We had a brief meeting at GANA in Orlando on Sunday Feb 6th. Present were: Rick Wright, Cliff Monroe, Pete Anderson for Lyle, Tim Moore, and John Kent.

In summary, I believe there were 2 points that developed out of the discussion:

1. Question over the charter of the group, to develop voluntary recommendations strictly as advisory or voluntary recommendations as a way to meet a mandatory requirement?
2. Concern in the ability to set a single criteria for all processes and production environments (high volume/low volume/custom).

Since the meeting, I have received the following comments:

I wanted to follow up with you regarding the SGCC quality manual meeting after I had a chance to digest the conversation we had. As always it is very difficult to get a group of manufacturers to agree on anything, but we do see the value of having some guidelines/recommended practices set in place. I think by calling them voluntary will get more people to agree initially. I would recommend reviewing the input you received in your survey of what others are doing and try to see if there are any common trends. Use these trends to then develop a first draft of some guidelines.

With these comments in mind, I would recommend we develop a few **very basic** recommendations. I have attached results from current SGCC inspections as to what plants are currently doing. Perhaps if we review this material and develop criteria that will address, say 80% of plants, this might serve as a starting point for discussion at the full SGCC meeting in April. Possibly a table like below may work. I have filled in a few thoughts, again as a starting point. Your comments/thoughts/input are needed and welcomed! Thanks for your consideration.

	Low Volume	High Volume	Custom
QA Manual			
QA Procedures		A well developed written procedure for the fabrication of tempered/laminated product, as well as for the evaluation of the product	

4/5/2005

QA Test			
QA Test Frequency		Minimum per thickness and per shift	Once per day

John G. Kent

P: 315-646-2234

F: 315-646-2297

Quality Manual	QA	QA Test	QA Frequency	QA	QA Person Responsible
Yes, policies and	Yes	Floor break test	Every 30 minutes or every product change	Yes	Furnace Coordinator
Yes, ISO 9001	Yes, work	Table break test, Z97.1 impact bag	Table break hourly, impact day	Yes	Quality Mgr.
Yes, finished	Yes, Nov	Break pattern, roll distortion, pitting	Break every hour	Yes	Furnace Operator and Technician
Yes,	Yes	Roller wave & edge distortion, floor break test,	Floor break-hourly, impact-daily	Yes	Quality Mgr.
Yes,	Yes,	Z97.1 test & Floor break test	Floor break test every 2 hours; Z97.1 1/day	Yes	Quality Mgr. & Tempering Dept. Sup.
Yes, but couldn't	Yes	Break test	Hourly, per thickness	Yes	Three shifts of Furnace Operator
Yes	Yes	Break Test, Gasp Test	Every thickness change, every size change or every 30 min	Yes	Quality Mgr.
Yes	Yes	Break test, GASP	Per thickness or 1 hours	Yes	Furnace Operator
Yes	Yes	Break test, bow and warp	Hourly, per thickness	Yes	Furnace Operator
Yes	Yes	Break Test	4x day and thickness change	Yes	Director of US Operations
Yes	Yes	Break Test	2 hours	Yes	Furnace Operator
Yes	Yes	Break Pattern, Warp, Kink, Thickness	Every 1/2 hour	Yes	Quality Supervisor
Yes	Yes	Break Size	Per thickness	Yes	Tempering Supervisor
Yes	Yes	Test Break & Gram Scale	Start of each shift/cycle change/1/2 hour of run	Yes	Quality Manager
Yes	Yes	Boil, Pummel, Bag Drop	Monthly-boil & pummel Quarterly- bag drop	Yes	QC Mgr.
Yes	Yes	Punch/Impact Test	Each customer per case or per hour	Yes	QA Mgr.
Yes	Yes	Shot bag test; drop ball test	1x/3mth for shot bag test; 1x/2 weeks for drop ball test	Yes	
Yes	Yes	Break test, intensity test, impact test (use steel ball)	1 pc/2 hrs; 4 pcs/quarter, 6 pcs/quarter	Yes	QC Manager
Yes	Yes	Break test, intensity test, Flat check	1 pc/2hrs; 2pc/3-4 minutes; 1pc/shift	No	CQC Manager
Yes	Yes	Break Test	Every 15 minutes and thickness	Yes	QC Manager/QC Tec
Yes	Yes	Break pattern	At recipe change	Yes	QA Manager
Yes	Yes	Break Test	Per thickness/hourly	Yes	Furnace Operator
Yes	Yes	Break Test	Change in thickness and 1x/hour	Yes	Production Supervisor/Quality Mgr.
Yes	Yes	Ball drop, particle test, impact test		Yes	Quality Manager
Yes	Yes	Break Test	Every two hours and thickness change	Yes	Plant Mgr.
Yes	Yes	Punch	2-3 times per day	Yes	General Mgr.
Yes	Yes -	1-Pummel-laminates; 2- break pattern-transparent	1-every new roll, PVB or shift change; 2-1x per hour	Yes	Process Supervisors
Yes	Yes	Ball Drop, Punch, Gasp	Weekly (ball drop)/every half hour	Yes	Fabrication Mgr.
Yes	Yes	1. Pummel Test, 2. boil test, 3. vinyl test by supplier	1. Once/wk; 2. Once/wk; 3. Once/mth	Yes	Lami Supervisor
Yes	Yes	Hot stamp, gauge check, squareness check	Every 2 hours	Yes	QC Inspector, Shift Supervisor, Production Mana
Yes	Yes	Break test, ball drop test	30 min/thickness	Yes	Furnace Operator
Yes	Yes	Break pattern	Once/hr and every thickness change	Yes	Production Mgr.
Yes	Yes	Ball drop, prick punch, roll distortion	1 x 1wk, every 1/2 hr, every 1/2 hr	Yes	Dept. Mgr.
Yes	Yes	Break test	Thickness change	Yes	Plant Manager
Yes	Yes	Break test, ball drop	Break - hourly, ball drop - once per month	Yes	Furnace Operator
Yes	Yes	Center Punch, Break Pattern, Agila 25 9000	Every hr., every new part	Yes	Quality Mgr.
Yes	Yes	Shot bag test, drop ball test	1 time per month for shot bag test; every lot for drop ball	Yes	Manager
Yes	Yes	Break test/ball drop	Per thickness	Yes	Owners
Yes	Yes	Center punch break test, roll distortion, warp/bow	Hourly	Yes	Dept. Mgr.
Yes	Yes	Break Test	Every 30 minutes/size change	Yes	Tempering Sup.
Yes	Yes	Break test	Every hour, per thickness	Yes	2nd Shift Supervisor

Yes	Yes	Break Test	1 hour or on adjustments	Yes	Lead, Supervisor, or Plant Eng.
Yes	Yes	Break test	Per thickness or per shift change	Yes	Tempering Supervisor
Yes	Yes	Impact & boil test	6 months	Yes	Plant Manager
Yes	Yes	Break test, ball drop	Break test - hourly; ball drop - monthly	Yes	Furnace Operator
Yes	Yes	Break test	Hourly	Yes	Furnace Operator
Yes	Yes	Break test	Hourly	Yes	Quality Supervisor
Yes	Yes	Tempered Glass Break Test	3x per shift	Yes	Quality Mgr.
Yes	Yes	Break Test	1xhour/thickness	Yes	Quality Mgr.
Yes	Yes	Particle Weight, Break test	Two weeks	Yes	Computer Programmer w/Tempering Supervisor
Yes	Yes	Center Punch	~ 1 x hour; min 2 x shift	Yes	QC Supervisor, QC Tech, Operator
Yes	Yes	Frame Break & Floor Break	Use hourly GASP readings for heat str.	Yes	Plant Mgr.
Yes	Yes	Break test	2x shift	Yes and	Furnace Operator
Yes	Yes	Break Test	Hourly	Yes	Furnace Operator
Yes	Yes	Break test, warp	Hourly	Yes	Temp. Supervisor
Yes	Yes	Gasp, break test	Per thickness daily	Yes	Furnace Supervisor
Yes	Couldn't	Break Test	Hourly	Yes	Furnace Operator
Yes	Yes	Prick Test	Once per shift	Yes	Tempering Mgr.
Yes	Yes	Break, Bow, Rollwave, Kink, Gasp	Break test-every 2 hrs Rollwave, Bow, Kink/lite	Yes	Tempering Supervisor
Yes	Yes	Punch Test	Every 1/2 hour	Yes	Plant Engineer
Yes	Yes	Floor break test, roll distortion	3 per shift	Yes	Tempering Manager & Quality Control
Yes	Yes	Dimension check, break pattern test and roll	1 time per 30 minutes	Yes	Quality Control Operator
Yes	Yes	Break Test	1xdaily	Yes	Maintenance Engineer
Yes	Yes	Break Test	Every 20-30 minutes & for each thickness change	Yes	Plant Mgr.
Yes	Yes	Center Punch	Change thickness/shapes and/or 1x/hour	Yes	General Manager
Yes	Yes	Break test, GAR test, bow and rollerwave	1/2 hr.	Yes	Furnace Operator
Yes	Yes	Pummel Test	3 x weekly	Yes	Plant Manager
Yes	Yes	Break test, bow, roll distortion, logo check, fan room	Hourly	Yes	Quality Control Mgr.
Yes	Yes	Break test/bow/roll	Every hour	Yes	Superintendent
Yes	Yes	Break	2x per shift & record	Yes	QA Mgr.
Yes	Yes	Break test, 1x/day and every thickness change	Thickness change	Yes	Facility Manager
Yes	Yes	Break Test	Per thickness change	Yes	Plant Manager
Yes	Yes	Table Break Test	4-5 times/day depending on thickness or type	Yes	Senior Product Line Mgr.
Yes	Yes	Break test, roll distortion	3x per shift	Yes	Quality Manager
Yes	Yes	Break test	Thickness change, every hour	Yes	
Yes	Yes	Break Test	Hourly	Yes	Production Manager
Yes	Yes	Break test, GASP, adhesion & boil test	Per thickness	Yes	Quality Engineer
Yes	Yes	Center Punch Fracture, Article Count	Hourly	Yes	Factory Manager
Yes	Yes	Break Test	Switch to diff thickness	Yes	Furnace Operator
Yes	Yes	Fracture and flout	Hourly or per batch depending on size of batch	Yes	Plant Manager
Yes	Yes	Thickness, Flatness, TM, Center Punch	Every 4 hours, Start-up & Product Change	Yes	Plant Mgr.
Yes	Yes	Break test, warp test, etc.	Hourly	Yes	Furnace Operator
Yes	Yes	Impact test/break test/check for warp/kinks/size, etc.	Impact test-yearly/Check-hourly	Yes	Tempering Specialist

Yes	Yes	Break Test	Shift and thickness or process	Yes	Manufacturing Engineer
Yes	Yes	Break Test	Every 5 loads	Yes	Plant Mgr.
Yes	Yes	Break test, Gasp, Rollerwave	Per thickness	Yes	Furnace Operator
Yes	Yes	Distortion, Surface Quality, Break Pattern,	Appx 1 hr Intervals	Yes	Supervisor
Yes	Yes	Break	Hourly and for each thickness change	Yes	Tempering Supervisor
Yes	Yes	Particle Weight, Break test	3 x per hour	Yes	Furnace Operator
Yes	Yes	Break Test, ball impact test (4/yr)	2 hrs/thickness	Yes	Quality Coordinator
Yes	Yes	Break test every run, compression measurement	Every shift/per run	Yes	Quality Manager
Yes	Yes	Break Test	Hourly	Yes	Quality Manager
Yes	Yes	Fragment test/surface strength/impact/ ball and	1/2hr/1 per shift/1 per 2 months	Yes	Technical Director
Yes	Yes	Break test	Every 2 hours	Yes	Tempering Supervisor and Auditors
Yes	Yes-ISO	Compression, CPSC, Pummels	Daily	Yes	Quality Services Manager
Yes	Yes	Break Test	Every 15 minutes, document every 30 minutes	Yes	Tempering Supervisor
Yes	Yes	Surface & Edge Stress/Particle weight	Per Customer Job	Yes	QC Mgr.
Yes	Yes	Prick Punch	Daily	Yes	Operations Manager
Yes	Yes	Particle Count and Gasp	Twice Daily	Yes	Tempering Supervisor
Yes	Yes	Break test per thickness	Daily	Yes	Director of Quality
Yes	Yes	Fragment test, surface strength/Impact ball test	1 per shift/1 per 2 months	Yes	Mgr. Of Quality Dept.
Yes	Yes	Break Test	Size change or 3x/day	Yes	Plant Manager
Yes	Yes	Floor Break Test	8-10 times per day or more	Yes	Quality Assurance
Yes	Yes	Punch, Pummel, Adhesion, Boil Test for laminated	Daily, every 2 hours	Yes	Laminated Supervisor
Yes	Yes, ISO	Break pattern; physical dimensions, laser	Every 30 minutes	Yes	Quality Mgr.
Yes	Yes	Break Test/Gasp Test	Every thickness change/Random check	Yes	Quality Assurance Manager
Yes	Yes	Break test, warp and rollerwave	Hourly	Yes	Furnace Operator
Yes	Yes	Break test	Daily	Yes	Team Leader
Yes	Yes	Break test	Every 2 hours, every thickness change	Yes	Safety-QC Coordinator
Yes	Yes	Logo check, break pattern, distortion	Every hour	Yes	Flat Glass Supervisor
Yes	Yes	Center Punch Impact Test	Hourly	Yes	Oven Operator
Yes	Yes	Break Test	1/8" every 15 minutes, 1/4" every 30 minutes	Yes	Plant Mgr.
Under	Under	Logo check, break pattern, distortion	Every hour	Yes	Plant Manager
No, will develop	Yes	Breat test	Every 3 months	Yes	President
No, to be	Yes	Impact test; samples stored but not weighed	Once per week per thickness or type of glass	Yes,	Plant Manager
No	Yes	Break Test	Batch	Yes	Plant Manager
No	No	None	N/A	N/A	Supervisor
No	No	Roll gauge, GASP, break test	GASP-2x day, Roll-if necessary, break-1st run @ switch of	Yes	Operator
In process	Yes	GASP	3 x daily & at product switch	Yes	Quality Control Coordinator
In preliminary	Yes	Floor break test	One/hr & with any thickness change	Yes	Tempering Supervisor
Factory did not	Factory	Factory said they did not conduct product test	None	Factory	Mgr. Of Quality Dept.
	Yes	Center Punch	By control plan	Yes	QC/Safety Coordinator
	Yes	Impact, fragmentation, visual defect	For each production order	Yes	Quality Chief
	Yes	Broken test after tempering procedure	One piece/half hour	Yes	Senior QC
	Yes	Warp & break	Daily and per thickness	Yes	Supervisor

Yes	Center Punch	Each Shift	Yes	Shift Supervisor
Yes	Punch Test, Wt Size	Every hour & logged	Yes	Plant Manager
Yes	Dice Test	Daily per thickness (3-4x per shift)	Yes	Furnace Operator
Yes	Punch Break	Hourly and every thickness change over	Yes	Furnace Operators and/or Production Supervisor
System	Divisional/chemical/physical (break) in conformity to	Once an hour	Yes	Quality Controller/Quality Sys. Mgr.
Yes	Impact test, Pummel test, Humidity test	Weekly	Yes	Quality Control Mgr.
Yes	Impact test, Boil test, Pummel test, Humidity Test	Once a week	Yes	Assistant Mgr.
No	Size Measure	Each piece	No	Production Coordinator
Yes	Break test, bow, distortion, roll wave	Hourly	Yes	QC Mgr.
Yes	Break Test	Every hour	Yes	Tempering Oven Technician
Yes	Break Test	Twice per shift	Yes	Tempering Operator
Yes	Glass surface fractured	Start and random checks done during production	Yes	Sale Centre Manager
Yes	Punch	Once per hour	Yes	Operator/Quality Tech.
No	PSI check	Daily when running	Yes	Furnace Operator
Yes	Visual, Dimensions, Temp., Crash	Each lot	Yes	Product & Quality Supervisor
Yes	Break testing	Every thickness change & every hour when tempering	Yes	Production Mgr.
Yes (for	Break tes, GASP	Hourly	Yes	Furnace Operator
Yes	Break & Surface Compression	Break-3x/shift & Surface-every 1/2 hr	Yes	Plant Mgr.
Yes	Multiple test per wk instructions	Hourly	Yes	Q.C. Person
Yes	Break & Weight	1 per shift/per glass thickness	Yes	Production Supervisor
Yes	Break, Impact, Laser, and Roll Wave	Daily throughout shift, check logs both lines	Yes	AGM & Quality Engineer
Yes	Impact test, boil test (ANSI Z97.1/1984), Pummel	Monthly/daily	Yes	Industrial Engineer
Yes	Break test, warp test	Every mill change and every hour	Yes	Quality Assurance Production Supervisor
Yes	Warp & Break	Daily & per thickness	Yes	Supervisors - Need type
Yes	Fragmentation test, flatness test, waveness test	Every 2 batches = every 4 hours (avg)	Yes	QC Manager
Yes	Fragmentation Test	1 per batch and 1 per post	Yes	Quality Manager
Yes	Break Test	Every 2 hours/thickness	Yes	Plant Manager
Yes	Fragmentation test: judgment/evaluation of glass	Weekly	Yes	Quality Supervisor
Yes	Tempered transparent	Every 2 hours	Yes	QA Manager
Yes	Center Punch, Break Test	Per thickness change	Yes	Furnace Supervisors

SGCC Testing Laboratory Status

5. *Laboratory agrees that initial approval by the SGCC Certification Committee is contingent upon an initial survey of Laboratory's test facilities by the SGCC. Laboratory agrees to pay the cost of the initial survey and inspection of the testing facilities. Ongoing laboratory approval is subject to approval by the SGCC Certification Committee and shall be for a period of two (2) years. During this period the laboratories facilities shall be re-surveyed and all issues arising from this survey resolved. A fee of \$1000 annually for each facility shall be charged for SGCC Laboratory approval and surveys. This fee shall be waived under the following conditions:*

1. *During the first 2 calendar years of initial SGCC Lab approval.*
2. *When 5 or more SGCC participating plants have selected the facility as their designated testing laboratory for that year.*

7. *Approval as an SGCC Approved Testing Laboratory may be removed for failure to adhere to any of the above provisions or failure to pay any outstanding fees older than 60 days.*

Company	Location	Date of Initial Approval	Date of Inspection	Approved by SGCC	Signed License Agreement	Current year lab fee PAID
Architectural Testing Inc.	St. Paul, MN	10/6/92	8/27/02		9/9/04	
Architectural Testing Inc.	York, PA	6/30/85	Tent 5/5/05		10/26/04	
Architectural Testing Inc.	Fresno, CA	11/18/97	Tent 4/20/05		9/9/04	
Architectural Testing Inc.	Southlake, TX	7/1/04	6/15/04		6/25/04	
Bowser-Morner, Inc.	Dayton, OH	4/28/04	4/21/04		1/19/90	
Construction Consulting Laboratory West	Ontario California	11/19/97	Tent 4/19/05		9/7/04	
ETC Laboratories	Rochester, NY	3/8/94	6/22/04		7/30/04	
Fenestration Testing Laboratories	Hialeah, FL	10/2/97	4/13/05		10/22/04	
Intertek	Duluth, GA	10/10/97	4/10/03		3/9/90	
Intertek	Cortland, NY	10/2/97	6/22/04		6/23/04	
Intertek	Middleton, WI	10/14/97	4/6/01		9/21/04	\$1000
Performance Testing, Inc.	Monroe, WA	10/14/97	8/11/04		1/2/90	
Rone Engineers, Ltd.	Dallas, TX	3/31/00	6/15/04		7/14/04	\$1000
Stork-Patzig Testing Laboratories	Des Moines, IA	6/11/99	Tent 5/13/05		4/4/05	
Stork-Southwestern Laboratories	Houston, TX	3/17/99	6/16/04		7/15/04	

October 18, 2004

«MrMs» «First» «Last»
«Company»
«Address_1»
«Address_2»
«City», «StateProv» «Zip»

Dear «MrMs» «Last»:

We would like to stress two matters:

1. By direction of the SGCC Board, additional test fees for "odd size" testing will not be accepted after testing for the First of 2005 (F05) certification period. You will either need to develop efficiencies for switching test sizes, or take into consideration the additional charge in your normal fees. This SGCC policy should not affect your charges for L04 and F05 testing. We will accept changes to your normal fees for L05 any time prior to March 15, 2005.
2. The SGCC Laboratory Agreement was revised on April 20, 2004. Specifically the following language was added.
 5. *Laboratory agrees that initial approval by the SGCC Certification Committee is contingent upon an initial survey of Laboratory's test facilities by the SGCC. Laboratory agrees to pay the cost of the initial survey and inspection of the testing facilities. Ongoing laboratory approval is subject to approval by the SGCC Certification Committee and shall be for a period of two (2) years. During this period the laboratories facilities shall be re-surveyed and all issues arising from this survey resolved. A fee of \$1000 annually for each facility shall be charged for SGCC Laboratory approval and surveys. This fee shall be waived under the following conditions:*
 1. *During the first 2 calendar years of initial SGCC Lab approval.*
 2. *When 5 or more SGCC participating plants have selected the facility as their designated testing laboratory for that year.*
 7. *Approval as an SGCC Approved Testing Laboratory may be removed for failure to adhere to any of the above provisions or failure to pay any outstanding fees older than 60 days.*

If you have not properly signed the latest revision of the SGCC Laboratory Agreement, two copies are enclosed for your execution. If you are eligible for the \$1000 fee, you will receive an invoice on or before November 1, 2004, which must be paid to maintain approval and listing in the January 2005 Certified Products Directory (CPD).

If you have any questions on either of these matters or if we may assist in any way, please do not hesitate to contact us any time. As always, thank you for your support of the SGCC certification process.

Best Regards,

John G. Kent
SGCC Administrative Manager

CC: M. Cody, Chair, SGCC Certification Committee
C. Carmen, Past President, SGCC
R. Paschel, President, SGCC

Approval of Non-US Laboratories

Dear John:

It was my pleasure to talk to you over the phone.

I am writing to you in behalf of China National Lab for Safety Glazing (CNLSG) to apply for being one of SGCC/IGCC authorized oversea testing lab. I am CNLSG's oversea agent in North America.

CNLSG is located in Beijing, China. It belongs to China Academy of Building Materials, and is the highest rated lab in China. It is the only lab which is authorized by Chinese government to test safety glass for CCC certificate (China Compulsory Certificate) worldwide. They are also the leading drafter for Chinese Standard for Safety Glasses GB9626.

Mr. JJ Yang, the director of CNLSG, also serve as staff committee member for ISO Safety Glazing session.

Mr. Yang asked me to represent CNLSG to contact you and seek the possibility of being authorized as SGCC/IGCC authorized lab.

I believe the co-operation of SGCC/IGCC and CNLSG will be of mutual interest to both parties. We are receiving more and more Chinese companies who are seeking to exporting to US and need SGCC/IGCC certificate, but more than often backed off when they learnt that they would have to send sample to US for testing. For example, we just had a customer who sent sample to wrong address (they sent the sample to ATI's bank instead to ATI) due to their poor English now they have to do it over.

I also believe that SNLSG is qualified to do the testing jobs to you. The lab has more than 20 years of experience in testing safety glasses. And believe or not, they have at least 3 PhDs and more than 20 professionals with master or bachelor degrees. Many of them speak fluent English.

Your kind consideration will be highly appreciated. We will also invite you to visit CNLSG at your earliest convenience to inspect our facilities and personnel. We will be happy to pay for the accommodations of your visiting group during your staying in Beijing.

I look forward to hearing from you soon.

Regards,

Charlie Cao
SinoUSA International Corp.
Agent of SNLSG

From: Krohnberg Lyle [lkrohnberg@viracon.com]

Sent: Monday, January 24, 2005 9:01 AM

To: AMS; Kevin Olah; Tim Moore; Bill Nugent; Carl Carmen; Donald Vild; Elaine S. Rodman; June Willcott; Mark Cody; Peter Weismantle; Richard Paschel

Subject: RE: SGCC China Lab

Hello All,

I have no objections to an SGCC/IGCC approved lab in China. I worked with JJ while he was at our facility for our initial CCC testing. He was knowledgeable, accommodating and speaks very good english. If they agree to pay for flights and accommodations for all laboratory audits, so much the better. They require the same of us when they visit our facilities.

From: Mark.Cody@afg.com

Sent: Monday, January 24, 2005 9:05 AM

To: AMS

Cc: Carl Carmen; Donald Vild; June Willcott; Kevin Olah; Lyle Krohnberg; Mark Cody; Peter Weismantle; Richard Paschel; Elaine S. Rodman; Tim Moore; Bill Nugent

Subject: Re: SGCC China Lab

We did have a short discussion about this and John pointed out that there are reputable companies in China that can audit the labs and provide certification of the labs. But....the discussion came down to the fact that most businesses in China are tied to the government in some way.

Some the most important issues are do we feel that the lab would report failures of Chinese companies accurately? Do we feel that certification organizations would actually fail a lab and remove certification? The answer was probably not due to the current form of government and most of the people in the discussion did not feel comfortable certifying a lab in this country.

I am opposed to certifying a lab in China at this time, but am willing to listen to any arguments for certifying a Chinese lab at the next meeting.

As a comparison, BSI in Europe requires sending samples for their Kitemark Certification (similar to SGCC certification, but more rigorous requirements for a quality system) to Europe for testing. This has turned a lot of U.S. companies off, but if you want to sell into the EU you do it.

Best regards,
Mark Cody

Dear Mr. Cao and Yang,

Thank you for your interest in becoming an SGCC Approved testing laboratory. Your request was circulated to the Board of SGCC for review and while Mr. Yang's experience and credentials are exemplary, there remains some concern for the precedent this may set for SGCC and for your facilities independence. The general consensus of the SGCC Board was that they would like to discuss this matter further before providing you with a formal response. Our next meeting is April 14th and 15th, in Tampa Florida at which time this matter will be discussed at length. We would expect to be able to provide you with a formal reply to your request shortly after this meeting.

In the mean time, any additional information about your facility that you may be able to provide may be helpful to our Board. As a final note, we have received your signed copy of the SGCC Testing Laboratory Agreement that we will hold for now before counter-signing.

Again, thank you for your continued interest as SGCC evaluates this opportunity.

Best regards,

John G. Kent
SGCC Administrative Manager

TELEFAX MEMO

3rd February 2005

TO: John Kent - AMS/Henderson Harbor
FROM: Richard A. Paschel - Flushing/New York
SUBJECT: REQUEST FOR CERTIFICATION OF A CHINA TEST LAB

Dear John ...

To date, I have seen only two(2) responses to your question on this request -- one(1) from Lyle and one(1) from Mark.

Though Lyle's comments indicate that he is familiar with the person in question initiating this request and can stipulate from personal knowledge that the individual is honest and honorable, I lean strongly toward Mark's comments that [1] the political structure involved in the PRC raises serious questions about the ultimate integrity of the system in place that would be locally overseeing what is going on; and, [2] there is an international precedent for *not* certifying 'offshore' labs since the "Kitemark" testing for Europe can only be performed by a certified European test lab.

It is thus my feeling, and my recollection from the very brief conversation at the last Board Meeting about this possibility, that certifying any 'offshore' lab, especially one in the PRC, is simply something that the majority of the Board is not interested in undertaking and approving at this time.

However, since the communications from this lab has apparently now been "upgraded" from an informal inquiry to a formal request, the question needs to be placed on the Agenda for the upcoming Spring meeting, so the Board can [a] review/discuss the different aspects of this matter; [b] decide on its position, one way or the other; and then [c] provide a formal response back to the applicant.

Best regards,


Richard



Laminating Division – Fabricating Member Certification Survey

During the 2004 GANA Fall Conference, the Laminating Division Technical Committee discussed testing and certification of laminated glass product through the Safety Glazing Certification Council (SGCC). Following discussion, the committee agreed to survey the Laminating Division fabricating members regarding the issues involved. SGCC Guidelines for Laminated Glass as of July 1, 2004, are attached for your reference.

Please take a moment to respond to the following questions:

Do you have any recommended revisions to the Safety Glazing Certification Council (SGCC) program for testing and certification of laminated glass?

If you do not already certify all your laminated glass constructions and if these changes were made to the program, would you certify:

- (a) all of them ____ Yes ____ No
(b) more of them ____ Yes ____ No

Additional comments:

Please fax or e-mail your **response to GANA headquarters (fax: 785.271.0166, email: gana@glasswebsite.com) by Friday, January 28, 2005.** All specific company information will be held in strict confidence.

SGCC Guidelines for Laminated Glass as of July 1, 2004

LAMINATED GLASS

L.1

Certification of regular laminated glass will also cover tinted, heat absorbing, and coated glasses, and clear or tinted interlayer, both flat and bent of the same nominal thickness. When testing to the impact test criteria in 16 CFR 1201.4(a)(1), four specimens shall be tested or as noted in guideline G.27. (Revised 10/22/93)

L.2

In cases where certified laminated glass is normally not available for sampling the licensee may make an overrun (of four lights of prototype size that are to be marked with the date of production) when the item is in normal production and these will be accepted by the Administrator if other samples are not available. Otherwise, when production samples are not available the Administrator shall notify the licensee to submit prototype size samples to the Administrator within six weeks.

L.3

Certification of 7/32 inch laminated glass also covers SS/DS and vice versa.

L.4

When a laminated glass is certified, other laminated glasses having the same thickness or thicknesses of glass and a greater thickness of plastic interlayer will be considered to be of equal nominal thickness and will be included in the certification.

L.5

Laminated safety glass need not be identified by type of base glass.

L.6

Thickness of the plastic interlayer shall be measured by the SGCC® standard method.

L.7

For certification purposes the following thickness tolerances shall be used. Thickness tolerance shall apply only to the overall thickness. The plus tolerance shall be the sum of all the individual plus tolerances of each layer of the laminate. The minus tolerance shall be the sum of all of the individual minus tolerances of each layer of the laminate.

The tolerance of the plastic sheet interlayer shall be based on the nominal thickness of the interlayer with a plus tolerance of 0.002 and a minus tolerance of 0.004 inches.

The tolerance of resin cast interlayers shall be based on the nominal thickness of the interlayer with a plus tolerance of 0.015 and a minus tolerance of 0.005 inches. (Revised 3/16/90)

L.8

When a laminated annealed glass is certified, other laminated glasses having the same thickness or thicknesses of heat strengthened or tempered glass and the same or greater thickness of plastic interlayer of the same chemical composition will be considered to be included in the certification.

L.9

When laminated glass is not available for routine sampling, the licensee submitted specimens must contain the identical thickness plastic interlayer that was contained in the prototype specimens.

Text from John Kent – SGCC comments during September 19, 2004, Laminating Division – Technical Committee Meeting

Certification of Laminated Glass In General

Current guidelines for the Certification of laminated glass may not be reflective of the actual product available in the marketplace. Additionally, participation in 3rd party certification by laminators is relatively low. The question was asked, might there be a better way?

SGCC Meeting Discussion

“Current SGCC thinking is to certify on a per overall nominal thickness per generic interlayer. The concept of grouping tests of individual “products” to qualify or certify a broader “product line” was discussed. It was noted, however, that CPSC 16 CFR 1201 specifically states that each nominal thickness must be tested. It was the feeling of the group that the GANA Laminating Division was the most knowledgeable group to address these concerns.”

From CPSC 16 CFR 1201.4(a)(3)

“Separate testing is required for different glazing materials or for differences within a type of glazing material that could noticeably affect performance in the impact or environmental durability tests. Such differences could include (but are not limited to): Nominal thickness or thicknesses, method of manufacture (in appropriate cases), types and amounts of additives, and composition of base materials and adhesives.”

Possible Considerations

- Certification of Range of thickness (Product 1 = 4-6mm, Product 2 = 7-12mm)
- Initially test all laminated make-ups. On a re-certification basis, test “a percent of all products certified” (example: if a company is certified, and initially tests 4,6,8,10 and 12mm, then @ first recertification test “say” 4 and 12mm, @ second recertification test 6 and 10mm.
- Is the consideration for laminated glass certification equitable to Temperers?



Laminating Division – Fabricating Member Certification Survey

RESULTS

Do you have any recommended revisions to the Safety Glazing Certification Council (SGCC) program for testing and certification of laminated glass?

1. In general, the interlayer does the work (impact resistance) in laminated glass products. Therefore, the certification of laminated glass products will be based on the impact resistance of the interlayer. The interlayer manufacturer will provide the physical properties of their safety glazing interlayers. The laminator will test the thinnest and thickest total glass thickness make-ups (whether symmetrical or unsymmetrical glass thicknesses are used), with the weakest, thinnest interlayer from a given interlayer manufacturer for which approval is sought. This would cover all total glass thicknesses between the two thicknesses tested, and all interlayer products by the same manufacturer that are thicker or stronger. Also, testing with the weakest glass type (i.e., annealed) covers all stronger glass types (i.e., heat-strengthened and tempered).
2. Perhaps delete "plastic" and just say interlayer so that it includes the various pvb's and resins, etc. L.8 – If possible, "add chemically strengthened glass of the same or greater thickness."
3. We believe there is no value in testing all make-ups. If a thinner laminated glass makeup passes then a thicker one will pass and should be certified under that certification. The guideline could read: "When a laminated annealed glass is certified, other laminated glasses having the same thickness or greater thickness of heat strengthened or tempered glass and the same or greater thickness of plastic interlayer of the same chemical composition will be considered to be included in the certification."
Justification: We pass certification with 3/16" annealed, laminated glass [single strength (2.5 mm)/0.030" pvb/single strength (2.5 mm)] to CPSC 16 CFR 1201, with no opening or tear in the laminated glass.
4. I would strongly support a certification of range or thickness, rather than continuous testing of all thicknesses certified. I believe this would increase the volume of glass laminates being certified by SGCC standards. Due to a change in physical structure, I do not believe that temperers can be certified with a range. I would not support a change similar to laminating for temperers.
5. We have no revisions to propose at this time. We already certify our product line.
6. What does a mfg do for unbalanced lay-ups? Ex. 5.0/.030/3.0. Can we certify this and if so what SGCC # is used?

7. Why do inspectors allow samples from the floor to be used for testing that are not 34 x 76 for Cat II. Apparently this size can be as small as 16 x 30. This seems inconsistent.
8. What is the rating for adding a PET film to between pvb interlayers?
9. Some sort of adhesion test should be added to certification. (see #7 below)
10. Can a material like SGP be substituted for pvb?
11. Laminated glass is much more complicated than previously and a changes need to be made to address these product improvements.

If you do not already certify all your laminated glass constructions and if these changes were made to the program, would you certify:

- (a) all of them ____ Yes 3 No
- (b) more of them 4 Yes 1 No

Additional comments:

1. I have long believed that if our thinnest composite passes all testing, it is redundant to test most of the thicker composites using a similar composition.
2. Laminated glass testing to ANSI is considered to be flawed by some on our staff. A lite that breaks safely at 12" drop may not break safely at 48". This could be an issue as there is no requirement for adhesion. Lower adhesion products have an advantage in the bag drop test. Higher adhesion products tend to tear more readily.

ATTACHMENT #11

From: Schimmelpenningh, Julia C [jcschi@solutia.com]

Sent: Friday, March 04, 2005 11:49 AM

To: Al Hunsicker; al.brown@lucite.com; AMS(John Kent); Ben Beeler; Bill Knutsen; Bill Nugent; Brian Gartner; Brian Waldron; Brown; Bud Hewitt; Carl Carmen; Chris Barry; Ed.J.Conrath@nwo02.usace.army.mil; darrell@sitestar.net; David Chan; Deb Levy; Dennis Furlano; Dennis McCreary; Don Vild; George Graf; cgcarney@aol.com; Scott.Norville@WIND.TTU.EDU; Harry Miles; Henry Gorry; JerryR@fireglass.com; Ken Smith; Ken Wilcox; kmann@scopelitis.com; Lyle Krohnberg; Mike Metz; Nance, Robert; RayVFoss@aol.com; rslomko@atlaswsg.com; Richard Paschel; Rick Perry; Roland Temple; Schimmelpenningh, Julia C; Tom Mewbourne; al.brown@lucite.com; cgcarney@aol.com; JWTURNB@aol.com; kmann@scopelitis.com; Mark_Cody@afg.com; RWright@OldcastleGlass.com; Valerie L Block

Subject: ANSI Z 97.1 Standard

ANSI Z97.1 Committee -

I hope you are all doing well. I have just received word from ANSI that they shipped the Z97.1-2004 Standard off to Global Engineering today and it will be available for purchase shortly. The link below is the location to get the electronic version of the standard through the ANSI e-store.

Here is the link to the store. http://webstore.ansi.org/ansidocstore/dept.asp?dept_id=3124

This is just a quick communication, we will likely put something more formal together for distribution but many of you have asked about the standard and I wanted to get you the information as quickly as it was received.

Enjoy your day!

Julie

Julia C. Schimmelpenningh

Architectural Technical Applications Manager

Solutia Inc.- Performance Films

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SGCC's Implementation of ANSI Z97.1 – 2004

4.19.04.10 Implementation of ANSI Z.97.1 2004? - J. Kent

Various aspects of implementing a new version of ANSI Z.97.1 were reviewed (See Attachment #5). It was noted that numerous SGCC guidelines refer to prior certification periods, G.2, G.6, G.25. After discussion, a motion was made by Monroe/Paschel that one year after approval of a new version of ANSI Z97 (presumably a 2004 edition) SGCC shall test to the new version only, unless specifically requested otherwise by the Licensee.

Vote: Unanimous Affirmative
Motion Passed

Requirements to include "date of manufacture" on a permanent logo were discussed. It was recommended that the topic should be researched and fully presented at the next meeting. Mark Cody volunteered to provide a presentation.

Issues for Consideration

1. Implementation Schedule -

1. Upon initial release of Standard, SGCC should formally "Accept".
2. Will testing to "84" be considered equivalent to "04"
3. If not, then a schedule should be set for testing and labeling
 - a. Testing to 2004 only effective F05
 - b. Label to 1984 or 2004 (after test is passed) for 2005
 - c. Labeling only to 2004 once L05 is passed

2. Changes to SGCC Label -

➤ Z97-04 requires the following label information:

1. Supplier's name or mark
2. "ANSI Z97.1-2004"
3. Test Size (U or L), and Drop Height Class (A,B, C)
4. Place of fabrication (If more than one plant)

Typical SGCC Label

Z97.1-84

ABC Glass
16 CFR 1201-II
ANSI Z97.1-1984
1/4U SGCC-9999

Z97.1-04

ABC Glass – Plant A
16 CFR 1201 – II
ANSI Z97.1 – 2004 A
1/4U SGCC-9999

- Note:
- 1) It should be noted that the building code also appears to require the "Type" of glazing to be listed, i.e. "Tempered".
 - 2) The SGCC number could be used to identify both the "Supplier" and "Place of Fabrication."

3. Effects to Test Lab's/Test Equipment -

1. Weathering test for laminated, and multiple options for weathering test
2. Test to Impact Class section 5.1.2.1
3. Shims for testing
4. Section 5.1.1 (5) Traction/release system to have means to "Rotate" the impactor
5. Some variation in Procedure, section 5.1.3
6. Some variation in interpretation of results, section 5.1.4
7. More clear direction for testing "bent" products.

4. Questions for SGCC -

1. Implementation date (test and label) – Per minute 4.19.04.10 – One year after approval date.
2. What will be the requirements for Laminated glass weathering? Who may provide the data and how frequently shall it be required?
3. All testing on 34 X 76-inch samples, initially?

From New Z97 – "Weathering tests on laminated and organic coated glasses shall be performed on the thinnest construction of all components in clear glass with clear plastics by either the laminate fabricator or the manufacturer of the interlayer or plastic glazing sheet material."

4.1 Condition of Specimens.

Tests shall be applied to specimens as shipped by the manufacturer and shall be representative of commercial production, except that any protective masking material shall be removed prior to test.

4.2 Thickness of Specimens.

The thickness of the specimens to be tested shall be measured and recorded along with the nominal thickness in accordance with accepted industry practice (for glass as set forth in ASTM C 1036-91(Re-approved 1997)). No manufacturer shall mark or advertise as passing the tests, described in this standard, any product of different nominal thickness than that of the specimens passing the tests.

4.3 Size Classification of Specimens.

A description of impact specimens to be tested as required for size classification as set forth below:

Unlimited Size (U)	34 inches by 76 inches, ± 0.125 (1/8) inch (863 mm by 1930 mm, ± 3 mm)
Limited Size (L)	Appropriate to Manufacturer, Largest size commercially produced by the manufacturer less than 34 inches by 76 inches, $\pm 1/8$ inch (863 mm by 1930 mm, ± 3 mm). Minimum specimen size: 24 inches by 30 inches, $\pm 1/8$ inch (610 mm by 762 mm, ± 3 mm).

No manufacturer submitting specimens that are in the Limited Size Classification shall mark or advertise as passing the tests, described in this standard, any product with either dimension greater than those of the specimens passing the tests.

4.4 Specimens for Impact Tests.

For impact test (see section 5.1) of any safety glazing material, four specimens, each of the thickness and size described in sections 4.2 and 4.3 respectively, shall be required. If the test specimens are of an asymmetric material, two shall be impacted from each side.

For impact test after aging (see section 5.4) of safety glazing materials used in indoor applications, four specimens, each of the thickness and size described in sections 4.2 and 4.3 respectively, shall be required. If the test specimens are of an asymmetric material two shall be impacted from each side.

For mirror glazing products using either reinforced or non-reinforced organic adhesive backing material, four specimens each with the backing material applied, of the thickness and size described in sections 4.2 and 4.3 respectively, shall be required. The specimens shall be impacted only on the non-reinforced side and with no other material applied.

Standardized "Certificate or Affidavit"

I was teaching a class on safety glazing in Rhode Island a couple of weeks ago, and a question came up that perhaps you can help me with. The question has to do with the provision in the IBC and IRC that permits the label on safety glazing to be omitted "provided the building official approves the use of a certificate, affidavit or other evidence confirming compliance..." The glazing contractors attending the class complained that the code officials in Rhode Island would never allow them to use this exception. Representatives from the state building department who were in the class asked if there was a standardized form for this information that was being used in other states, and indicated they might be willing to accept such a form.

This issue comes up from time to time. Some framing systems cover, or partially cover the "bug" thus making it difficult for the inspector to verify. This is especially true for some heavier skylight and window profiles. Many homeowners are resistant to have any marks on the glass, even if it is not in the vision area. Thus the mark (bug) is crowded towards the outside perimeter corner of the unit. We have been subject to this call by inspectors in the past. Our procedure is to supply the building official with a notarized letter indicating that the job in question was provided with safety glazing in accordance with current code requirement.

Thus the letter is site specific naming the parties including the contractor, homeowner address or address of the spec. home in question. Included in the letter is the glass unit(s) size and makeup, as an example 25.5 X 49.5, 1/8 tempered glass over 1/4 laminated glass .030 PVB inner layer. The building officials have accepted our letter of verification in lieu of the distinguishing mark being visual. Stating such places the liability on the manufacturer in much the same manner as applying the bug.

Recommend that the glazing contractors formulate a standard form letter/certificate, acceptable to the Building Officials in their area, for the "Verification of Safety Glazing".

I am not aware of a standard form although it may be something to consider--perhaps at AAMA.

Acknowledgement Of SGCC Approved Testing Laboratory

This is to acknowledge that as of this date

Intertek Testing Services, NA
Cortland, New York

Has met all guidelines & requirements for acceptance as an approved testing laboratory. Approval is based upon a prior initial audit and most recently a re-audit on June 22, 2004.

This approval is for testing services in compliance with the following standard(s) and/or specifications:

ANSI Z97.1 – For Safety Glazing Materials Used in Buildings Safety
Performance Specification and Method of Test

CPSC 16 CFR 1201 – Safety Standard for Architectural Glazing Materials

Approval as an SGCC Testing Laboratory is subject to regular re-auditing and continued compliance with program requirements and procedures. This SGCC program certificate is current and in full effect as of the 1st day of July, 2004.

Please check current SGCC Certified Products Directory.

John G. Kent - Administrative Manager

CHAPTER 24

GLASS AND GLAZING

SECTION 2403

GENERAL REQUIREMENTS FOR GLASS

2403.1 Identification. Each pane shall bear the manufacturer's label designating the type and thickness of the glass or glazing material. The identification shall not be omitted unless approved and an affidavit is furnished by the glazing contractor certifying that each light is glazed in accordance with approved construction documents that comply with the provisions of this chapter. Safety glazing shall be identified in accordance with Section 2406.2.

Each pane of tempered glass, except tempered spandrel glass, shall be permanently identified by the manufacturer. The identification label shall be acid etched, sand blasted, ceramic fired, embossed or shall be of a type that once applied cannot be removed without being destroyed.

Tempered spandrel glass shall be provided with a removable paper marking by the manufacturer.

SECTION 2406

SAFETY GLAZING

2406.1 Human impact loads. Individual glazed areas, including glass mirrors, in hazardous locations as defined in Section 2406.3 shall comply with Sections 2406.1.1 through 2406.1.5.

2406.1.1 CPSC 16 CFR 1201. Except as provided in Sections 2406.1.2 through 2406.1.5, all glazing shall pass the test requirements of CPSC 16 CFR 1201, listed in Chapter 35. Glazing shall comply with the CPSC 16 CFR, Part 1201 criteria, for Category I or II as indicated in Table 2406.1.

2406.1.2 Wired glass. In other than Group E, wired glass installed in fire doors, fire windows and view panels in fire-resistant walls shall be permitted to comply with ANSI Z97.1.

2406.1.3 Plastic glazing. Plastic glazing shall meet the weathering requirements of ANSI Z97.1.

2406.1.4 Glass block. Glass-block walls shall comply with Section 2101.2.5.

2406.1.5 Louvered windows and jalousies. Louvered windows and jalousies shall comply with Section 2403.5.

2406.2 Identification of safety glazing. Except as indicated in Section 2406.2.1, each pane of safety glazing installed in hazardous locations shall be identified by a label specifying the labeler, whether the manufacturer or installer, and the safety glazing standard with which it complies, as well as the information specified in Section 2403.1. The label shall be acid etched, sand blasted, ceramic fired or an embossed mark, or shall be of a type that once applied cannot be removed without being destroyed.

Exceptions:

1. For other than tempered glass, labels are not required, provided the building official approves the use of a certificate, affidavit or other evidence confirming compliance with this code.
2. Tempered spandrel glass is permitted to be identified by the manufacturer with a removable paper label.

2406.2.1 Multilight assemblies. Multilight glazed assemblies having individual lights not exceeding 1 square foot (0.09 square meter) in exposed area shall have at least one

light in the assembly marked as indicated in Section 2406.2. Other lights in the assembly shall be marked "CPSC 16 CFR 1201" or "ANSI Z97.1," as appropriate.

UNITED STATES CODE SERVICE

TITLE 15. COMMERCE AND TRADE
CHAPTER 47. CONSUMER PRODUCT SAFETY

15 USCS § 2063 (2003)

§ 2063. Product certification and labeling

(a) Certification accompanying product; products with more than one manufacturer.

(1) Every manufacturer of a product which is subject to a consumer product safety standard under this Act and which is distributed in commerce (and the private labeler of such product if it bears a private label) shall issue a certificate which shall certify that such product conforms to all applicable consumer product safety standards, and shall specify any standard which is applicable. Such certificate shall accompany the product or shall otherwise be furnished to any distributor or retailer to whom the product is delivered. Any certificate under this subsection shall be based on a test of each product or upon a reasonable testing program; shall state the name of the manufacturer or private labeler issuing the certificate; and shall include the date and place of manufacture.

(2) In the case of a consumer product for which there is more than one manufacturer or more than one private labeler, the Commission may by rule designate one or more of such manufacturers or one or more of such private labelers (as the case may be) as the persons who shall issue the certificate required by paragraph (1) of this subsection, and may exempt all other manufacturers of such product or all other private labelers of the product (as the case may be) from the requirement under paragraph (1) to issue a certificate with respect to such product.

(b) Rules to establish reasonable testing programs. The Commission may by rule prescribe reasonable testing programs for consumer products which are subject to consumer product safety standards under this Act and for which a certificate is required under subsection (a). Any test or testing program on the basis of which a certificate is issued under subsection (a) may, at the option of the person required to certify the product, be conducted by an independent third party qualified to perform such tests or testing programs.

(c) Form and contents of labels. The Commission may by rule require the use and prescribe the form and content of labels which contain the following information (or that portion of its specified in the rule)--

(1) The date and place of manufacture of any consumer product.

(2) A suitable identification of the manufacturer of the consumer product, unless the product bears a private label in which case it shall identify the private labeler and shall also contain code mark which will permit the seller of such product to identify the manufacturer thereof to the purchaser upon his request.

(3) In the case of a consumer product subject to a consumer product safety rule, a certification that the product meets all applicable consumer product safety standards and a specification of the standards which are applicable.

Such labels, where practicable, may be required by the Commission to be permanently marked on or affixed to any such consumer product. The Commission may, in appropriate cases, permit information required under paragraphs (1) and (2) of this subsection to be coded.

HISTORY: (Oct. 27, 1972, P.L. 92-573, § 14, 86 Stat. 1220.)