

NFRC Calculation Entity Approval Program (CEAP) Workshop

December 4, 2014



SCOPE OF WORKSHOP

Workshop is held so ACE's are in compliance with the NFRC 708 4.3.2.2 A

- Changes to the NFRC documents
- Periodic Review
- Software Changes
- Additional Supportive CMA Information

CHANGES TO THE NFRC DOCUMENTS

- NFRC 705-2015 CMA PCP
 - No changes
- NFRC 708-2015 CEAP
 - No changes
- NFRC 704-2015 Fee Schedule
 - Limited changes

NFRC 704-2015 FEE SCHEDULE

- NFRC 705 Fees

- Frame Component Manufacturer –component fees changed

Frame Component Manufacturers	Member	Non-Member
≤ \$2 million (Small Business Program)	\$1,500	\$1,500
\$2.01 million - 20 million	\$3,500	\$4,500
>\$20.01 million	\$7,500	\$8,500
Annual Per Frame Component (billed semi-annually)	\$15	\$30

- Spacer Component Manufacturer – component fee changed

Spacer Component Manufacturer	Member	Non-Member
Annual Participation	\$3,500	\$4,500
Annual Per Spacer Component (billed semi-annually)	\$80	\$130

- Software Usage Fees – combined all software fees

CMA Software Tool (CMAST)	Member	Non-Member
Annual License per user	\$1,000	\$1,000
Note: Licensed ACE organizations are exempt from CMA Software Tool Fees		



ACEs NOT AT ACE ORGANIZATIONS

- Must pay CMAST fees
 - \$1000/year
- Must pay Annual Maintenance Fees
 - \$150/\$200 Member/Nonmember
- Failure complete either of above results in ACE status suspension

REMINDER: COMPONENT FEES

- frame components statuses billed:
 - Design, review, redesign, pending, approved, voluntary terminations
- All sizes of spacers are billed
 - not just model
- 6 month minimum charge for all components

CMAST USER FEE CLARIFICATION

- CMAST Fees not required for:
 - NFRC Accredited inspection agencies
 - NFRC Accredited simulation and test labs not associated with ACE Organizations
- Reason: CMAST necessary to perform NFRC CMA work

COMPONENT DEACTIVATION

- Two ways
 - User deletes design status component from client
 - User must notify staff to deactivate all other statuses
- Reminder: 6 month minimum component charge for any uploaded component

TIMING OF NFRC PARTICIPATION AND COMPONENT INVOICES

All Participation, Maintenance/ICEC, and
CMAST fees

- January

Component fees

- April 1
- September 1

PERIODIC REVIEW

- NFRC 708, Section 4.3.4:
 - Not less than once in two years following approval, but more often if deemed necessary by the APC, NFRC shall conduct a technical evaluation assessment (“Periodic Review”) of each ACE.
- 2014 ACE organizations reviews completed successfully
- Staff will schedule 2015 review as needed.
- Any questions regarding Periodic Review, contact Jen Padgett.

CMAST IMPROVEMENT PROJECT

- NFRC committed \$700,000 to make changes
- Project completion is targeted for completion early 2015
- Smart Sync being tested/evaluated by staff now

ISSUE REPORTING PROCEDURE

To report issues with CMA or CMAST, you must go to the website and fill out a “Request for Support” document. Once you’ve done this, you can send to cmasupport@nfrfc.org

CODE ENFORCEMENT

- Bid report vs. label certificate
 - Bid report **not allowed** for final code review
- 2013 Title 24 making specific reference to CMA program
- ASHRAE 90.1 user manual makes mention of CMA

CMA IS CODE COMPLIANT

- *Only NFRC ratings can satisfy IECC and ASHRAE 90.1 requirements*
 - *NFRC 100 and NFRC 200 references in all commercial energy codes mean CMA ratings comply*
- *NFRC 100/200 = CMAST ratings on LC*
 - *Not bid report!*

CMA ON LARGE RESIDENTIAL PROJECTS

- CMA cannot be used for residential
 - NFRC 705, section 1.2.2.1 restricts CMA to commercial work
- NFRC 700, section 6, allows residential labeling at site of final assembly
 - May help on large residential projects

2013 INTERCALCULATIONAL ENTITY COMPARISON (ICEC)

- 37 participants
- Report completed
 - APC approved
 - Distributed to ACEs
- Discuss recommendations and final results today

2013 ICEC ACTUAL SIZE RESULTS

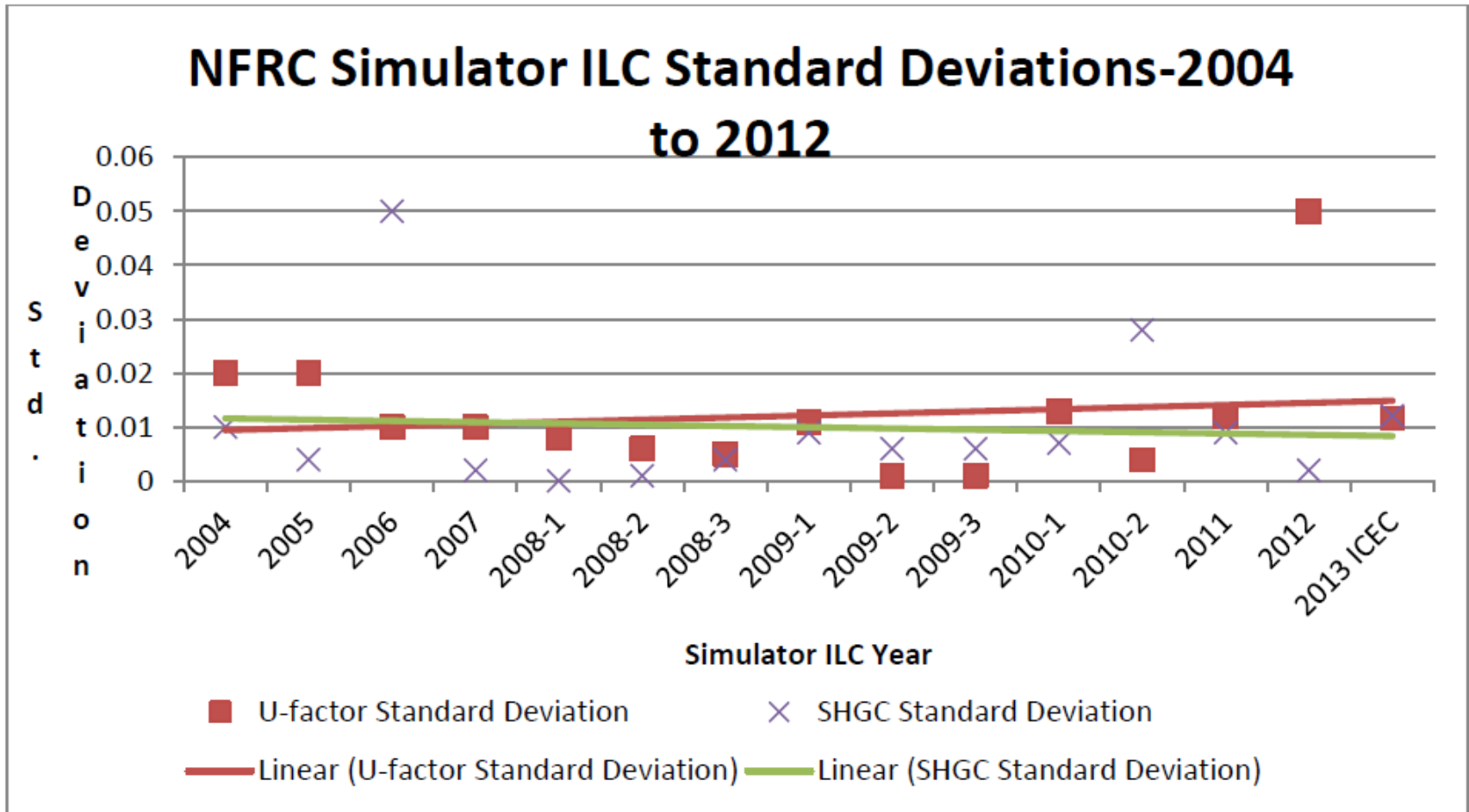
	Actual Size			NFRC Standard Size		
	U-factor	SHGC	VT	U-factor	SHGC	VT
Participant average	0.380	0.312	0.381	0.352	0.325	0.402
Standard deviation	0.039	0.021	0.033	0.011	0.012	0.009
solution	0.375	0.318	0.391	0.349	0.329	0.409

Good NFRC size results, poor actual size results

2013 ICEC-NFRC SIZES

- U-factors within 2 SDs, but several outliers
- SHGCs mostly within 2 SDs, but fewer outliers

NFRC Simulator ILC History



2013 ICEC VERSUS HISTORICAL SIMULATOR ILCs

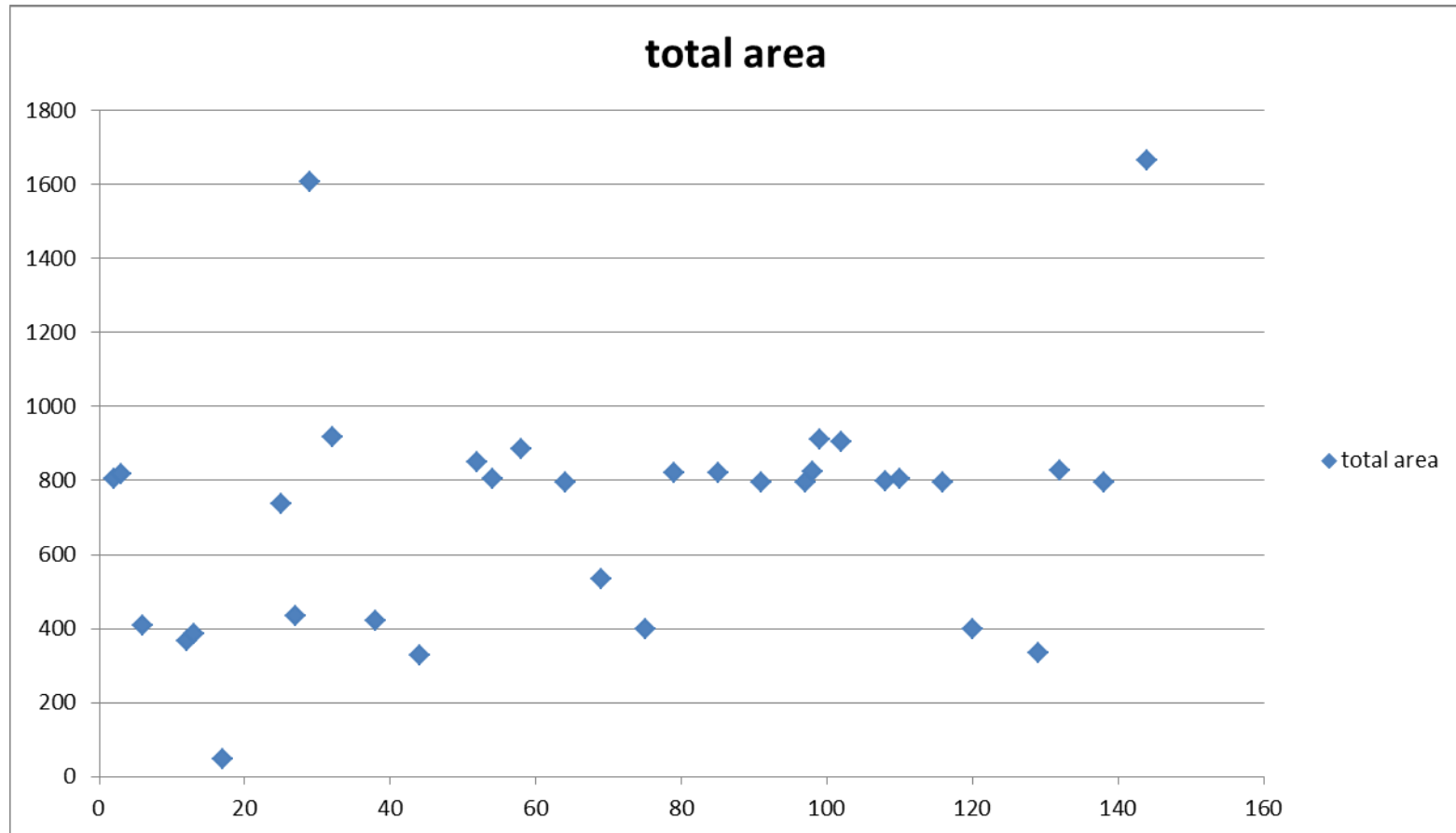
	2013 ICEC-Standard Size	2004 to 2012 Average
U-factor Standard Deviation	0.012	0.012
SHGC Standard Deviation	0.012	0.010

Good results

2013 ICEC-ACTUAL/SPECIFIED SIZE

- Required assumptions, real world
- Results indicate wide variance
 - Actual size values varied widely
 - 0.04 standard deviation on U-factor
 - 0.02 standard deviation on SHGC

ACTUAL AREA VARIANCE



SPECIFIED SIZE GUIDELINES

- Emulate specified window product(s) while minimizing modelled products
 - One to sixteen window were created per project
- Be consistent with product type
 - Some mixed fixed and curtainwall or window wall
 - Fixed is incorrect

2013 ICEC ACTUAL/SPECIFIED SIZE

- Calculate window area for project
 - Some did two sides

2013 ICEC RECOMMENDATIONS

- Ensure terminated components used appropriately
 - Several failed to use terminated head/sill

2013 ICEC RECOMMENDATIONS

- Generic spacer type must be used if an exact match is not found in CMAST

2013 ICEC Recommendations

- NFRC must consider actual size rules
- CMA Technical TG could pursue
 - Develop guideline document?

2014 ICEC

- Staff will issue this month
- 60 days to complete
- Participation required per NFRC 708
 - Maintain ACE status
 - If at an ACE Organization or not
- Annual Maintenance Fee covers ICEC
 - \$150 member/\$200 non-member
 - Invoice in January

Thanks for Your Time

Any Questions