

Non-Residential Certification Task Group Meeting
Meeting Notes
1/12/2005
Orlando, FL
DRAFT

Attendees:

Arlene Stewart, Mary Apalski, Bill Lingnell, Daniel Wacek, Gary Curtis, Charlie Curcija, Jason Theios, Jeff Baker, Jim Krahn, Jim Larsen, John Hogan, Larry Livermore, Marcia Falke, Margaret Webb, Mike Manteghi, Nikki Jackson, Patrick Muessig, Richard Wright, Roland Temple, Michael Thoman, Werner Lichtenberger, Ellen Chilcoat, Tracy Rogers, Tim Moore, Greg Carney, Michael Stocki, Denny Raske, Joe Hayden, Joel Smith, Cliff Monroe, Steven Selkowitz, Steven DeSutter, Tom Culp, Doug Harden, Steve Strawn, Richard Porosky, John Lewis

NFRC Staff: Bipin Shah, James Benney, Jessica Ferris

Agenda:

- Road map update
- Review to do list from November 22, 2004 meeting
- NFRC Board of Directors meeting update
- Review of PCP-Draft
- Technical Reports (Charlie Curcija, Jeff Baker)
- Timeline Review
- Future Meetings

Meeting:

- Meeting commenced at 9:00 AM and was chaired by Larry Livermore
- Introductions - All attendees introduced themselves
- Meeting minutes from the November 22, 2004 meeting approved

M/S Mike Mantehi
Pat Muessig

Items Discussed:

- I. Road Map Review:
 - Mike Manteghi reviewed the task group's implementation milestones – non-residential certification is an aggressive program that's moving forward.

- Gary Curtis reviewed current funding status: \$150,000 currently budgeted for this program by the Board but not yet approved for spending pending approval of a business plan. NFRC looking to solicit contributions from non-residential industry to support this program. Still working on the business model and plan.
- Larry Livermore gives overview of what this task group is currently undertaking for the benefit of the new comers at the meeting: the task group is developing a program for the thermal certification of non-residential/commercial fenestration systems. A component data-base is to be developed that will allow for the energy performance rating for these systems. A technical document has already been approved and the task group is focused on developing the certification program document for this program (the PCP) – these 2 program/documents have to work and mesh together at the end.

II. To Do List Review:

- a. Home work review:
 - i. **Scope (Bruce Croak):** Bruce Croak, work group leader, submitted draft and Pat Muessig, work group member, will be explaining this draft in Bruce’s absence.
 - 1. The scope was rewritten and the editorial comments incorporated.
 - 2. The only thing left to do is define “Framing System,” “Spacer System,” and “Center of Glazing System.”
 - 3. **Component approval (Mike Thoman):** No work done.
 - 4. **Licensing Requirements (Larry Livermore):** No work done.
 - 5. **Certification (Charlie Curcija):** Charlie will be arriving for this meeting around 10 and it is believed that his “homework” was completed.
 - 6. **Quality Assurance Program (Marcia Falke):** No work done, though Marcia Falke, work group leader, has some questions to ask the group on this.



III. Jeff Baker will be providing an overview/review of the following terms:

- Responsible Party
- Certified Simulator
- Licensed Calculation Entity

- 1) **Responsible Party** – Definition in draft glossary has already been set forth - This entity confirms that the individual systems (spacer, framing, and glazing) used to generate the whole product rating are those in the final assembly.

However there was further discussion on this definition during the meeting for additional clarification:

- a. Individual or entity that signs license agreement and thereby takes responsibility for what's labeled. Examples of who could be the responsible party:
 - i. glazing contractor
 - ii. architect
 - iii. manufacturer
 - iv. extruder

“Responsible Party” – individual who signs NFRC license agreement for the project and thereby ensures that the on-site system construction represents what was simulated and certified.

This led to extensive discussion and questions as to who wanted this system. Selkowitz commented that there were groups outside the fenestration industry that were pushing for higher performance buildings leading to new building code requirements and voluntary programs like LEED ratings for higher performance specifications. Increasingly more states are going to require this; in addition, building owners will require this. Maybe the task group should focus on developing the certification process right now and not necessarily focus on the definition of responsible party.

- 2) **Certified Simulator** – individual who has gone through NFRC training to do simulation work in an NFRC accredited lab. The individual has gone through training and passed a test.

- There was clarification made between the certified simulator and the independence requirements of an accredited lab.
- current definition in the PCP should not be touched for now. Should be careful on how we use this definition. The way it is written, allows anyone out there to become a certified simulator.

- 3) **Licensed Calculation Entity** – Current definition is inadequate - The group looked at the roles definition in the current PCP draft and discussed the role of this entity further:

- b. at the beginning of a commercial job, there is a need or desire to readily obtain ratings numbers, and at the end of a commercial job there is a need to have this entity (who is generating the label certificate) be independent from the manufacturer/responsible party.
- c. It was proposed that this definition be expanded as follows:

- i. Accredited Calculation Agency – those who can do the calculation and issue CAR - independent
- ii. Certified Calculation Entity – those who can do the calculations-certified to do calculations
- d. This language will be drafted to parallel current language of accredited lab and certified simulator.
- e. Should procedures for becoming an accredited calculation agency or certified entity be incorporated into the LAP or another document? Will need to look at this. For now the consensus is to incorporate it into the LAP.

IV. Discussion on Component Manufacturer:

There was a brief discussion to clarify the definition of “Component Manufacturer/Supplier,” as it pertains to each framing system, spacer system, and COG system. These systems are yet to be defined.

Question from John Hogan: Can a glazing contractor get a component into the component database? Who has the authority to put something in the database? Just the manufacturer?

Comment: A custom job once completed, can be used in another job until it becomes standard. Custom is new until it’s used again.

Question from John Hogan: What about the spacer system category – can just the spacer manufacturer get a spacer system into the database? What about the glazing systems? There will be lots of different manufacturers. Whose doing the center-of-glass? Glass supplier/mfr.

Comment: you build IG units from the components in the database.

Further discussion concerned quality assurance measures to ensure configuration of IG for performance (e.g., argon fill). It is felt that other organizations such as IGMA and IGCC already have certification programs in place to address this and it is beyond the scope of this task group.

Comment: COG – is a calculated end-result of the three components. Then the question was raised again as to whether this values were to be stored in the database or put together “on the fly” from the three component “buckets.”

Task Group recommends (at Jeff Baker’s recommendation) that the Technical task group review the technical procedures for how the non-residential calculations are to be performed and all remaining technical issues. Mike Manteghi to lead and move forward with this.

- V. Charlie Curcija's presentation on technical issues for a range of glazing systems.
- Analyzed glazing assembly.
 - Effect of spacer assemblies are represented as a composite homogenous rectangle of equivalent thermal conductivity. Evaluation compared the different configurations with varying glazing bites. U-factor variation of approximately .02 over bite/ranges evaluated.
 - Also looked at variation in glass thickness with fixed airspace. U-factor variation of approximately .01 over glass thickness range evaluated.
 - Variation of spacer inside the glazing unit.
- VI. Jeff Baker's presentation on IGMA Spacer Study:
- a. Phase I compared varying spacer types with common sealants.
 - b. Phase II standardize spacer system types. The possibility exists following the study's completion to enable grouping of spacer systems by keff variations.

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- VII. Task Group discussed development of definitions for
- a. Spacer systems
 - b. Framing systems
 - c. COG systems
 - d. Task Group concluded that the use of the term "system" is inappropriate for the spacer and glass components. In those two instances, one is only looking at the actual spacer or glass.
 - e. Comment: the glass, spacer, and framing system are the three "buckets."
 - f. New Terms to be incorporated into PCP draft (NFRC staff will clean up document in incorporating these new terms throughout):
 - i. **Spacer (properties) data/values** – Keff block: components assembled to separate two glass lights
 - ii. **Glazing data/values** – monolithic glass/spectral data.
 - iii. **Framing system** – structural components of a fenestration assembly that retains the COG system and spacer system (when used) within a wall opening. (Tracy's definition – Bipin will type in). ASTM 631 was referred to during the discussions of this definition.
 - g. Discussion around the 3 options for developing and calculating data in the non-residential database. It was agreed that the direction is to develop system information as needed, on the fly, and fill in the database as the program develops.

VIII. Quality Assurance (Marcia Falke leads discussion)

COMPONENTS & FINAL WHOLE PRODUCT -

Component inspections would be left to those who do certifications for those components (third party recognition) and in lieu of third party recognition, NFRC would step in. – This would be the case for spacer and glass; however, framing systems would be what NFRC currently does.

In addition, the NFRC would put into place a peer review program of component groups reviewing drawings, etc. for thermal performance. However, framing system would not require peer review – it should be done by IA. Further discussion led the group to conclude that peer review would not be practical.

Task group then focused on the idea of requiring a paper trail review of whole non-residential final products/projects instead; the group agreed that the glazing contractor can supply all the paperwork adequate to define a project per specifications. The IA can then review this paperwork submitted by the responsible party as part of an inspection process. Inspections should only consist of this paperwork submittal. Inspections will be conducted by random audit.

The question then for the Task Group was what percentage of non-residential projects should be audited.

- **Paper-trail working group** should be set up to investigate needs and requirements for paper-trail requisites and work on a draft plan. The group will meet by conference call between now and the end of January:

Richard Porosky
Marcia Falke
Bipin Shah
Greg Carney
Joel Smith

To Do:

Look at actual projects per year
List for inspections – what is to be inspected/audited
IA officer projects



IX. Additional issues:

Labeling of non-residential window systems.....

Charlie Curcija working on labeling requirements – need to come up with proposal.
Labeling sub-committee reports to certification committee.

- Labeling section of non-residential PCP - Project certificate or product certificate; in addition, should also have language to address actual labels for individual projects. Labeling Sub-Committee to start discussion at the March membership meeting.

Gary Curtis presented an option for getting homework assignments moving forward.
Gary proposed to come up with small sub- task group for developing a task group ballot:

Mike Manteghi
Dennis Raske
Richard Porosky
Bruce Croak
Arlene Stewart
Marcia Falke
Ilene Atwell
Jim Larsen
Bipin Shah

–Gary agreed to move forward with developing a task group ballot for draft PCP for submittal to task group by January 27, 2005. Gary also agreed to review any additional technical issues. Task group will want membership feedback of draft PCP at March meeting. There will be a presentation to the sub-committee.

Original tech task group will reconvene and pursue resolution of outstanding issues (Charlie Curcija - group leader). Charlie states that he believes that there are no critical outstanding technical issues and he asked if somebody have any specific critical issue that is left outstanding. Charlie also clarified that the list of current technical issues that the task group is working on and regularly reporting does not appear to critically affect technical procedure (i.e., effects are on the order of 0.01, with the clear trends, which means that technically they will be easy to incorporate into the current procedure, if required). Jeff Baker indicated that condensation resistance is one of critical issues. Charlie noted that CR is not required indice in NFRC program and therefore is not a critical issue. Besides, manufacturers wishing to obtain CR for their Non-Res products, can do it using existing NFRC 500. They don't need to use Component Modeling Procedure (CMP). Charlie indicated that nevertheless research work is currently being undertaken to develop CMP for condensation resistcne as wll. It is just that this is not critical issue to resolve and the program does not need to be held because of that.
Comment from Steve Selkowitz: He is concerned that although the board is committed in principle to support this that it will not allocate funding and give final approval until

both the technical issues are resolved and the business case is convincingly made. While confident that this will be completed eventually the discussion of the last day does not convince him that all these issues can be resolved to meet the current schedule and plan without a lot of additional progress to resolve issues and uncertainties discussed today..

Charlie Curcija followed-up emphasizing that it is important that BOD understands that there are no critical outstanding technical issues remaining and he also stated that he believes that PCP task group is moving in a positive direction to develop new PCP language, so that he does not see problems in the completion of the new Non-Res procedure.

Next Meeting:

The next Non-Residential Task Group Meeting is tentatively scheduled for the week of April 25, 2005 in Chicago in conjunction with the CSI Show.

There being no further business, the meeting was adjourned at 4:46 PM Eastern.