



Questions & Answers from July 15th CMA Webinar

Please explain what products can be "grandfathered" since there have been no CMA approved products to date.

A: Grandfathering procedures are listed in the following document: [hyperlink](#)

Are labs going to have to get approved to use the CMAST tool?

A: Yes

How and when are ACEs going to be approved? Classes? Tests?

A: Individuals will need to complete a training workshop and pass a take-home examination. The organization that employs or contracts with the ACE will be required to enter into a license agreement with NFRC. Specific requirements for the ACE program are contained in the NFRC 708 ([hyperlink](#))

No recertification requirements? What happens when WINDOW/THERM modeling changes are made that result in different results?

A: No way to predict the future, but NFRC's position has always been to continually improve the accuracy of the ratings, and we anticipate differences in these ratings. NFRC will address such situations as they arise.

One thing we have learned over the years is that all sorts of things change - material properties, calculation requirements, glazing properties, etc, making recertification necessary to make sure the ratings for any given product are close to current calculations. Given this problem, shouldn't there be a recertification or similar process under CMA?

A: At this time, the NFRC membership has not established recertification requirements; but that is not to say that this issue may be not considered or addressed in the future.

Are labs going to have to get approved to upload data to CMAST tool?

A: yes, the ASLs will need to be approved

For rated custom systems for large buildings, will that systems information be available to everyone or just the company that designed the system?

A: If the systems are reflected on an NFRC CMA Label Certificate information regarding that system will be made available in the CMA Products Directory.

Will all new custom wall systems have to be tested? All of our walls are custom and change for every project we do.

A: NFRC has been pursuing grouping rules that will reduce the amount of testing required for custom wall systems and other systems that share common geometry. If no simulation exists and the changes to previously-submitted systems is significant to the point where the product now is not covered by the grouping rules, then yes, simulations and validation testing will be required for this new system.

Is the program only available in metric?

A: No, CMAST allows the user to switch between SI and IP units; between metric and imperial.

Until a custom unitized curtainwall supplier is awarded the project, the final design of the framing is not completed. We cannot start submitting frames types now. We have to wait until we get a job and profile approval from the architect which could take two months after being awarded the project. We typically have to have framing members in our shop within 6 months of award of the project and units on site within 9-10 months. If we have to go through testing for every project, not only delays seem likely but every job cost will increase due to NFRC and ACE fees. Has this been considered in instituting NFRC rules?

A: Yes, these factors have been considered. When it comes to cost of compliance, the NFRC Board of Directors has made cost control a priority from the very beginning. The concept behind CMA is that frame members can be simulated and maintained indefinitely in an electronic library in CMAST for use in as many systems or projects as needed. Physical testing is required for validation, but once that is done, the frame member simulations validated by that test (which can be in the hundreds), can be populated into the CMAST library. Once approved, these components can be used for multiple systems in multiple projects. We encourage frame manufacturers to begin populating this library with their framing members now to further expedite the generation of a Label Certificate through the CMA process.

Is the 1/1/10 date only for California?

A: Yes, this is the targeted date that the state of California will implement its Title 24 revisions.

When does the rest of the US have to comply?

A: No states are required to comply to CMA. Rather, each state develops and enforces its own code requirements based on either ASHRAE 90.1 or the IECC. CMAST-generated values or ratings reflected on the CMA Label Certificate are intended as a means to code compliance and for the comparison of various fenestration systems.

Are other "glazing" materials, such as composite metal panels, terra cotta panels, granite, other stone components, etc., included in the "glazing" database? How do we get products certified / modeled if they include those types of products other than glass?

A: NFRC administers a uniform and independent rating and labeling system for the energy performance of windows, doors, skylights, and attachment products; NFRC does

not have procedures for rating and labeling curtain walls with opaque infills. Some interest has been shown in developing ratings for certain types of infill materials such as spandrel glazings, but rating such products today is beyond the scope of the NFRC program.

How big of a section of the curtain wall has to be modeled? What about other portions that have more / less glass, framing members?

A: A Curtain wall has a standard size and can only be modeled in a standard configuration (two equal lites in horizontal dual lite configuration) for certification. The user size can be different from the NFRC size, but the basic configuration is standard.

If we come up with a custom wall, and it has to be tested, what is the turn-around for this process, from submitting the computer model to completing the testing to verify?

A: Physical testing is only required for validating frame members not systems. Since this is a new program that has yet to be implemented it's difficult to provide a turn-around time for this process.

If a system has been certified, if the horizontal / vertical framing spacing changes from project to project, does each configuration have to be tested?

A: No. NFRC ratings are at NFRC standard sizes, regardless of whether the actual size of the system changes.

Most framing systems have several variations, either in the width or the depth of the framing system: does every variation have to be certified / and tested?

A: Whole product systems are NFRC-certified and certification is project specific. Whole product systems are not required to be tested. Frame members are NFRC-approved and maintained in an electronic library for use in as many projects as necessary. Frame members in a particular framing product line must be validated with thermal testing. One thermal test will be required for each framing product line.

If, as a supplier, we certify our products, must they be listed in the database? If we want to keep this information, not to ourselves, but have potential users contact the manufacturer rather than have it out there for the world to use, is that an option?

A: At this time, once a frame member is NFRC-approved, it is available for use for all registered users of CMAST. The frame supplier, however, has the option to hide (not show) the particular frame cross-section image if they choose.

The NFRC size doesn't work with real-world curtain wall modules. There are two problems:

1. A residential window size, which is what appears to be the “NFRC size” doesn’t work on 60 / 80 / 90 story curtain walls. Does that mean we can’t get the wall to pass the building inspection when they ask for the certificates?

2. What’s the building owner going to do when a wall can’t be built to pass the NFRC when the NFRC size can’t be built into the wall?

A: The use of NFRC standard sizes provides a benchmark for determining code compliance. For example, if a jurisdiction references ASHRAE 90.7-2007 for commercial construction and the requirements are for a U-factor of 0.35 and a Solar Heat Gain Coefficient of 0.45, the code official can simply check the NFRC label certificate to see if the products comply. Though the CMA Label Certificate reflects certified ratings at the NFRC standard size, it can also provide, as an option, ratings at the actual size of the product as “supplemental information” as an addendum to the certificate.

How are complex assemblies validated? I understand the simulation of all the various mullions and mulling components, but validation test units limit what can be incorporated.

A: NFRC does not have a rating procedure for complex products at this time though we are exploring and developing procedures for this in one of the task groups under the Ratings Committee. A balloted will be proposed in November.

What are the current criteria for validation testing?

A: The current requirements for frame validation testing are contained in the NFRC 100, Section 5.6 ([hyperlink](#)).

If a manufacturer initially uses an Independent ACE, is there provision for transfer of ownership of frame component data if the manufacturer hires an internal ACE? What I mean by ownership is an Independent ACE sets visibility for an assembly, so that person must have special rights. How do these rights transfer?

A: ACES, be they Independent or internal (Manufacturer) are contracted by a Specifying Authority, which could be a frame manufacturer, to configure whole products from NFRC-approved components in CMAST. ACEs generate CMA Label Certificates to Specifying Authorities for code compliance purposes. The specifying authority authorizes then the ACE to perform this function. Frame supplier that wish to have frame components NFRC-approved do so with the understanding that those frame components are made accessible to all CMAST users.

Can test data from products already tested for the residential program be repurposed for the CMA?

A: Yes, if the test reports are still valid. Manufacturers with validation tests performed after April 1, 2005 (~not more than 4 years old) may use those validation tests to grandfather product lines into the CMAST framing library. This may be done regardless of whether certification was previously granted.

Where can I download CMAST?

A: CMAST can be downloaded from the NFRC website: (provide hyperlink)

Does CMAST work with WINDOW 5?

A: No, only with WINDOW 6.

What entities constitute the "council" indicated in the organization's title National Fenestration Rating Council?

A: NFRC is membership based. NFRC members are listed on the NFRC website. In addition, NFRC has a Board of Directors that provides the direction, vision, and strategic planning for NFRC; and assures that programs and policies are in place to meet the NFRC mission. All NFRC members are eligible to serve on our Board of Directors.

This software is based on simulations. Do actual test values replace the simulation values?

A: No.

What is dynamic glazing? What do the Open and Closed mean?

*A: Dynamic Glazing (DG) products are any fenestration product with the ability to change its performance properties, allowing the occupant to control their environment by tinting (or darkening) a window with the flip of a switch or by raising and lowering a shade positioned between panes of glass. Some windows and doors can change their performance automatically in response to a control or environmental signal. The **OPEN** position is the orientation or condition of a product with an internal shading system that allows the maximum daylighting. The **CLOSED** position is the orientation or condition of a product with an internal shading system that allows the minimum daylighting. The reference to the **ON** position signifies the performance level when the switchable glazing system is powered, activated or otherwise "ON." The **OFF** position signifies the performance level when the switchable glazing system is de-energized, de-activated or otherwise "OFF."*

Does CMAST replace THERM and WINDOW, or does it utilize this data?

A: CMAST utilizes data from THERM and WINDOW and so interfaces with these two programs. Users of CMAST must therefore download and install THERM 6 and WINDOW 6 in order to run CMAST.

Is the ZEB goal for the entire US or for just certain regions?

A: The Federal Government has that goal for the entire United States; it is up to the various code jurisdictions to adopt code requirements to comply with this goal.

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Do you know of any other states that are ready to adopt/enforce the CMA program other than California when CMA is released Jan. 1? If so, what are the states?

A: Only the state of California references the CMA program in its compliance documents.

Once CMA has been used on a project, the assembled product goes into the CMA CPD. On a future project that uses the same components, how does a specifying authority get a label certificate? An ACE is not required, correct?

A: An ACE is still required to generate a label certificate even though a particular product that has already been certified is re-used. More than likely, there will be other products for the future project that are unique to that project and will require certification.

Our problem is verification. What do you recommend a building inspector do to verify that a certification label applies to the actual window installed?

A: Conduct a paper trail audit of the project in relation to the windows installed; that is, review of purchase orders, change orders, etc.