

Agenda

ACI/TMS Committee 122 Energy Efficiency of Concrete and Masonry Systems

Monday, March 2020

1:00 PM - 3:30 PM

Hyatt Regency O'Hare Chicago – Rm. International C

1. Call to Order

- 1.1. Introductions
- 1.2. Revisions to agenda

2. Approval of the Fall Convention Mtg. Minutes

- 2.1. Cincinnati – October 21, 2019

3. Membership Review

- 3.1. Roster review and survey results (see handout)
- 3.2. New member Introductions
- 3.3. Recruiting efforts

4. Virtual Meeting – March 6, 2020

- 4.1. Summary
- 4.2. Review Minutes
 - (1) Thermal Bridges Standard – Review latest draft
 - (2) Letter ballot
- 4.3. Approve minutes

5. Committee Documents - Review & Progress Reports

5.1. 122R-14: Guide to Thermal Properties of Concrete and Masonry Systems

Update – Martha VanGeem or Chair. Efforts here are on hold pending progress on Thermal Bridges Standard.

The proposed plan is to incorporate this document into 122.X either as part of the standard or as commentary, as appropriate.

5.2. ACI-TMS 122.X: Standard Thermal Properties of Concrete and Masonry for Use in Determining Energy Code Compliance

Update – Martha VanGeem or Chair. Efforts here are on hold pending progress on Thermal Bridges Standard.

This standard provides standard values and methods to determine values of thermal properties of concrete and masonry systems for use in energy performance models. The standard values provided or determined using the methods provided are intended to be used as inputs in building thermal performance modeling tools that are considered "deemed to comply" or alternative compliance paths to satisfy the requirements of energy codes and standards. The new standard would provide more options and accurately report or provide methods to more accurately determine the thermal properties appropriate for consideration for use in the energy codes and referenced standards. Note: Approved compliance tools include: DOE-2 based software and Energy Plus.

A draft outline was previously distributed and will be updated. The current plan is to develop text in 2020.

5.3. ACI-TMS 122.Y: Standard Methods to Evaluate and Mitigate Thermal Anomalies in Concrete and Masonry Building Envelope Components. hello

(1) Martha VanGeem report.

This standard provides acceptable methods for evaluating and mitigating the effects of thermal anomalies (thermal bridges) in concrete and masonry building envelope components. The evaluation methods permit the designer to evaluate the impact of thermal anomalies with regard to overall building thermal performance to determine if mitigation is necessary. Where the effects of the thermal anomalies, based on building envelope construction, properties of concrete and masonry systems, components, and related products and climate and local weather data, are determined to require mitigation, standard methods of mitigation are provided.

(2) Letter Ballot and TAC schedule updates and discussion.

5.4. ACI-TMS 122.3-XX Standard Methods of Design of Passive Solar Buildings

Chair report. Efforts here are on hold pending progress on Thermal Bridges Standard.

This standard provides the criteria to determining code compliance of passive solar buildings. Design methods are provided to determine the basic configuration for direct and indirect gain passive solar systems using concrete and/or masonry to provide the thermal inertia. It is recommended that designs determined using these methods be further refined with appropriate energy performance modeling systems.

6. Convention Session - Update & Planning

6.1. Fall Meeting Mini Session Update - Potential speakers and topics include:

(1) Bob Sullivan, cfIFOAM, Inc. will discuss a practitioner's perspective on success stories created by insulating stronger Next Generation CMU.

- (2) Prof. Mark McGinley, U. of Louisville will discuss recent whole building analysis studies comparing the performance differences between lightweight and normal weight CMU wall systems.
- (3) Chip Clark / the BIA Research Center will summarize recent research into clay brick veneer wall system energy use.
- (4) and potentially, depending on its status, Martha VanGeem (or others) will report on the new 122.Y 'Thermal Bridging' standard and its industry importance.

7. Old Business

- 7.1. Membership drive – The new standards development in will require additional members with expertise in this field.

8. New Business

9. Next Meeting

- 9.1. ACI Fall Convention October 26, 2020, Raleigh, NC

10. Adjourn