

MINUTES

ACI Committee 234: Silica Fume in Concrete April 22, 2002

Detroit, Michigan

Per Fidjestol called the meeting to order at 2:10pm.

Attendance:

Members

Per Fidjestol (Chair)
Terry Holland
William Halczak
Mohan Malhotra
J.C. Roumain
Mark Bury
Mike Thomas
Rachel Detwiler
Jan Olek
Tony Kojundic (secretary)
Mike Pistilli
Bryant Mather
Fouad Fouad
Min-Hong Zhang

Visitors

Paul St. John
Steve Somerville
Jan Prusinski
Rob Lewis
K. Obla
Kevin Smith
Andrea Boddy
Oscar Tavares

1. Minutes from previous meeting

Minutes from Dallas meeting, fall 2001 approved as written.

2. Membership

Total members 45
Total voting members 24
General Interest 27
Users 5
Producer / supplier 13

3. Results of ballot

Summary of negative votes enclosed.

The purpose of the meeting was to address the negative votes on balloted chapters 3,5,6,and 8. Editorial comments that were submitted will also be considered for chapter inclusion.

Chapter 3 negative voters.

Detwiler – Delete footnote #1. No motion to vote non-persuasive, therefore footnote #1 deletion is accepted.

Chapter 5 negative voters.

Malhotra – P4, L5. Change line 5 to “the committee is of the opinion that the strength reductions reported are marginal and of no structural significance...”

-Debate; Mather – Is the strength reduction statistically significant?

Thomas suggested, “reductions are not significant...”

The Malhotra negative found persuasive, and the sentence will be editorially changed.

Thomas suggested editorial change to P4, L1, insert, “...aware of a limited number...”

Holland, P2, L31, persuasive negative to insert references that will support the statement.

Holland, P4, L13, Felt the statement regarding cylindrical test specimens is out of place in this discussion. As editorial the committee decided to create new bullets to explore why drying shrinkage is important.

Holland, P7, L21, rewrite to establish “what the committee believes” before giving reasons for improved durability. Word-smithing this sentence will satisfy Holland.

Holland, P8, L45, This sentence needs reworking. The committee agreed to rephrase, “...the reduction in chloride transport is very clear and the use of SF is a sure way of reducing chloride ingress and the risk of reinforcement corrosion due to chlorides.”

Holland, P9, L11, We talk of cement replacement, but what about SF as an addition to the cement. The committee agreed to rework to include both replacement and addition options. Suggested ...” up to 15% SF of the cementitious materials...”

Holland, P16, L35, 5.4.3, Suggested we include more wording re: cracking. Rationale “cracking “ is more important to engineers v. resistivity, but the document is out of balance in the discussion of cracking. Detwiler will expand the section on cracking by extracting some references from the recent PCA work on cracking.

Zhang, P2, L36, Replace, “The “total” shrinkage...”, with “The drying shrinkage...”

Chapter 8 negative voters.

Malhotra, P1,L10, Cementitious factors are too high to represent what is commonly taking place. The committee recommended to combine the 2 examples in 8.2 into one recommendation of “350-500 kg/M3 total cementitious.

Thomas, P1,L13-14, recommended to expand to advocate the use of fly ash and slag. The committee agreed to rework this sentence to eliminate concern from these combinations.

Thomas, P3, L24, add blended cements to the silica fume product “forms”. The committee agreed to reword this sentence.

Chapter 6 Applications of silica fume.

Holland and Fidjestol recommend we pull this chapter and create a new document solely for Applications/Case Histories of SF concrete Applications/Projects. The committee agreed to this recommendation, but wished to continue to include an abbreviated Chapter 6 down to a few paragraphs.

Holland, Morgan, and Thomas negatives can be summarized as *variable detailing*, *incomplete information*, and *variable forms* within the chapter.

Chapter 10 – What research needs still need to be met?

Debate – Olek, Chapter author recommends a reduced research needs chapter with bullet points instead of detailed paragraphs. Over the past 10 years the prolific research has addressed many of the items. The committee agreed and Olek will rework and condense the chapter.

Summary of further ballots

3 items for letter ballot ASAP.

Chapter and paragraph 5.4.3 – Detwiler.

Chapter 6 condensation – Fidjestol/Holland/Wolsiefer.

Chapter 10 condensation – Olek.

Complete document for ballot before next meeting, with some basic editing included.

4. New business.

Next Canmet Durability Conference Greece, June 2003.

ACBM call for papers on self-consolidating concrete, session Nov. 12-13, 2002.

1st Concrete Bridge Conference (part of the PCI convention), Call for papers May 24, Opreyland, Oct 7-9, 2002.