

ACI-DAfStb-Group "Shear databases" / ACI Subcommittee 445-D

Minutes of the meeting at the ACI Fall Convention in Denver

Sunday, 8 November 2015, 14:00 - 17:00 h (2:00 to 5:00 pm), room Denver

Attending members: Oguzhan Bayrak; Abdeldjelil Belarbi (chair of 445); Evan Bentz; Antoni Cladera; Gary Greene; Dan Kuchma; Eva Lantsoght; Karl - Heinz Reineck (chair); Lesley Sneed

Visitors: Mohammed Alnaggar; Victor Baouma; Eduardo Guillen; Kimberly Kramer; Daninik Kueres; Brandon Ross; Mahmood Soltani;

1 Welcome

Chair Reineck welcomed attendees and called for introductions. Self-introductions were made by the Committee members and visitors.

2 Approval of agenda

Chair Reineck presented the agenda and asked for any changes/additions. Bayrak suggested adding database for T-beams to the agenda. The agenda was then approved by the Committee.

3 Approval of minutes of the last meeting

Chair Reineck presented the minutes from the previous meeting in Kansas City and mentioned that the heading needed to be revised from Reno to KC. The minutes were then approved by the Committee.

4 Report on databases as DAfStb Heft 617

Chair Reineck mentioned that the report is finished; it is written in English, which aims at international distribution. He and Daniel Dunkelberg will be the editors. He then summarized the contents and different parts of the report.

The foreword has still to be written and possible contents were discussed. Bayrak suggested a short paper detailing what data should be reported. The paper could be a statement by the ACI-DAfStb Group and could include examples from literature that demonstrate how missing data can be problematic. The Committee then discussed that it could be a committee document. The deadline for producing it would be A.S.A.P. For this foreword an editorial group was formed consisting of Daniel Dunkelberg, Karl-Heinz Reineck, Ozzie Bayrak, Evan Bentz and Dan Kuchma.

5 Revision of databases

5.1 State of vuct-RC-2015

Chair Reineck discussed the various databases. He mentioned that tests with staggered reinforcement will be separated into a different database. The Committee suggested renaming "beams with staggered reinforcement" to "beams with bar cutoffs." It was recently realized by Evan Bentz that Japanese bar sizes have different areas than the values calculated in the database so far, and this led to a review and a revision of the reinforcement areas for some tests by Shioya.

5.2 State of vsw-RC-2015

Nothing new to report.

5.3 Databases with shear tests on beams subjected to axial force

A working group was formed consisting of Bentz (check Toronto tests) and Cladera (review Spanish tests). The working group will also check for missing tests.

5.4 Databases with shear tests on non-slender beams

Chair Reineck will distribute database on non-slender beams.

Chair Reineck also agreed to report about requests for databases at the next meeting.

6 Databases for shear tests on lightweight concrete beams (Reineck; Greene)

Greene reported that he is comparing his database with Reineck's database, and he still needs to make sure all the information needed is included. The Committee discussed various parameters related to lightweight concrete that may be relevant and necessary information for the database. One important parameter is unit weight or density, however different researchers report unit weight measured under different conditions. It should be considered whether possibly a lower limit for the unit weight needs to be defined. Sneed agreed to work with Greene on this database.

7 New databases

7.1 Databases for shear tests at intermediate supports

Chair Reineck explained the history of needing a database of shear tests with intermediate supports, for beams with and without stirrups. A working group was formed consisting of Reineck and Bentz to develop this database.

7.2 Inverted T-beams; tests with loads applied at the bottom

A working group was formed consisting of Bayrak (who already has a database). Bayrak suggested David Garber join the working group.

8 Databases with shear friction tests

Mr. Mahmoodrez Soltani, PhD candidate from Clemson University, gave a presentation on his work on shear friction. He has collected a database of shear friction test results and compared the results with design provisions in AASHTO LFRD, CSA, and Eurocode.

The Committee suggested that Soltani seek additional tests from Raj Valluvan. Also, there is a recent thesis from an Iranian student (written in Farshi) that has additional tests results.

The Committee agreed that a new database should be developed on shear friction tests. A working group was formed consisting of Sneed. Bayrak suggested Chris Williams (Purdue) join the working group. Sneed will contact Williams regarding his potential participation. Reineck will look for a member from Germany (*a few days after the meeting Ms. Katrin Wieneke, M.Sc. from IMB at RWTH Aachen University expressed her interest to join this group*).

9 Criteria

- Limit for ratio d_{iaa}/b_w (continuation of discussion, see minutes Washington)

The Committee agreed to defer this topic until after the report is issued.

10 Next meeting

The Committee agreed to the next meeting day and time (Sunday 14 to 17 h or 2 to 5 pm).

11 Membership No discussion.

12 Other topics No discussion.

The meeting was adjourned at 5 pm.

Lesley Sneed, Karl-Heinz Reineck

14 December 2015