

Minutes
ACI Committee 355
Anchorage to Concrete
October 15, 2000
Toronto, Ontario, Canada

Chairman Ron Cook called the meeting to order at 11:30 AM. All members and guests were self-introduced. The Chairman requested that all members check and provide current email addresses. A copy of the updated Committee Roster is attached. Please provide corrections to Ron or Dick Wollmershauser.

It was announced that Harry Chambers was unable to attend. A motion by Makitka, seconded by Ireland, was unanimously approved to thank Harry for his many years of service to Committee 355 as Chairman and Secretary and to be recognized in Philadelphia. Jon Ardahl was welcomed as a new Associate Member. Jeff Dunagan has joined the Committee as an Associate Member.

Minutes: Motion by Makitka, second by Klingner to approve the minutes as written carried unanimously.

Status of ACI 355.2: Three issues.

1. The document: Galley proofs were approved by the Chairman. There will be a 90-day public comment period, possibly December through February, as part of the standardization process. See *Technical Committee Manual*, Sections 3.2.1.4 and 5.5, Article 6B. The document will be going through the full standardization process.
2. Status of 1998 appeal: By request of ITW representative Richard Ernst, the Board of Direction will hear the original appeal of the processing of ACI 355.2 on Thursday October 19, 2000
3. Lawsuit: A lawsuit was filed in September 2000 by ITW Ramset/Redhead against ACI, ICC, ICBO and Hilti, Inc. ICC and ICBO have been dropped as defendants. The original complaints have been amended and no court date has been set.

Status of ACI 318 Appendix D (CB30): A Committee 318 ballot was issued after the San Diego meeting. At the June ACI 318 meeting, all comments were resolved. TAC reviewed the document at its July meeting. The Committee responses to the TAC comments will be discussed at the Tuesday October 17, 2000 meeting. After Committee resolution, the processing will be reviewed by the Standards Board, with a 90-day public comment period to follow, probably in early 2001. It is expected to meet the goal of inclusion in ACI 318-2002.

Status of ACI 349 Appendix B: A response to the public comments to draft Appendix B was prepared in San Diego in March 2000. The steel shear strength equations were corrected as part of the public comments and are in line with the corrections made in CB30 by ACI 318. The draft of Appendix B was sent to the ACI 349 Main Committee for 30-day review two weeks ago. Expect to be approved in November 2000 and be made part of ACI 349-2000.

PCI Headed Stud Research: Don Meinheit reported on the headed stud test program sponsored by PCI. The report is to be published in the Sept./Oct. PCI Journal. Significant findings were:

- for $h_{ef}/d \geq 4.5$, expect shear of the steel
- for $h_{ef}/d < 4.5$, get pryout failure

$A_s f_{ut}$ not a good predictor for lightweight concrete.

Anchorage Programs of Interest:

1. Pete Carrato gave some information on large shear lugs with 200 – 1000 kips of shear loading, and suggested the Committee should look at shear lug design requirements.
2. Carrato also brought to the Committee's attention two anchor articles. Copies of both are attached to the minutes. The first was an article from the August 7, 2000 ENR, page 13, about anchor bolt failures at a Salt Lake City 2002 Winter Olympics skating arena. The second from the August 2000 Civil Engineering magazine was concerned with large bolts for cantilever sign support structures and represents a void in the current knowledge of performance of large anchors.
3. Lee Mattis reported on a current ASTM/CAMA task group investigation into the effects of concrete and its constituent components on the performance on adhesive-bonded anchor tension data. These include types and properties of aggregate and fines.

Unfinished Business:

To be taken up at the next meeting.

New Business

1. Revisions to ACI 355.2. R. Wollmershauser to check on any outstanding items from previous ballots that were to be brought before the Committee as new business items that were not included in the latest drafts of the 355.2 document.
2. Next meeting: The preference of those present was for a Sunday, March 25, 2001 meeting in Philadelphia for 10:00 AM to 1:00 PM and 2:00 PM to 5:00 PM.

The meeting was adjourned at 2:00 PM.

Respectfully submitted by
Richard Wollmershauser
Secretary Committee 355

Attachments:
Attendance list from Toronto meeting
Article from ENR August 7, 2000 issue
Article from Civil Engineer September 2000
Latest Committee Roster

Committee Mission: Develop and report information, and develop and maintain standards for anchorage to concrete.

Attendance at the ACI 355 Committee Meeting, October 15, 2000, Toronto, Canada

Committee 355 Members

Jon Ardahl
Tarek Aziz
Pete Carrato
Ron Cook, Chairman
Richard Ernst
Herman Graves
Kevin Heinert
Bruce Ireland
Richard Klingner
Alex Makitka
Lee Mattis
Don Meinheit
Richard Orr
Robert G. Smith
Richard Wollmershauser

Guests:

Mike Chehab
Kank-Ryong Choi
Lou Colaruss
Chris LaVine
Bret Turley
Donald T. Ward