

# Minutes

## ACI Subcommittee 228-B – Visual Inspection

Phoenix Convention Center – Room C-104A

Sunday, October 20, 2013, 1:00-3:00 pm

1. Call to order at 1:05 pm
2. Introductions

Committee Members Present: Andrew Boyd, Michael Brown, Nick Carino, Bill Ciggelakis, Eric Giannini, Kerry Hall, Malcolm Lim, Jon Poole, David B. Scott, Robin Tuchscherer

Visitors Present: Julie Ann Hartell, John Popovics, Khatereh Vaghefi

3. Apologies for absence

L. Jiang absent.

4. Membership report

Approximately 20 members; Looking for anyone willing to work and participate.

All present were encouraged to formally join the committee if not already members.

5. Current 228-B Goal - Revise ACI 201.1R “Guide for Conducting a Visual Inspection of Concrete in Service” as ACI 228.3R.

Per today’s 228 meeting 228B has been advised to remove “inspection” from the title of the impending document.

Committee 224 may have some overlap with this committee. J. Bice

may be able to coordinate with that committee. Possible that 224 provides causes to distress while this committee provides visual. Committees should coordinate as needed.

#### 6. Literature review update

Jon Poole will meet with R. Tuchscherer to coordinate. RGT has a student available for independent study that will be well-suited for this review. E. Giannini will also coordinate to identify potential for potential students for this task. Students may also have better access to journals and electronic journals than committee members without academic resources.

Topics to be reviewed are existing standards and guides, but review is open to discussion at this point. Previously referred to ASCE condition report, FHWA visual inspection documents, and possible European documents available. Other potential sources are: FHWA, IAEA, Dept. of Interior, and ASTM C1077. May be possible to post documents to committee website for distribution.

Committee may explore use of dye penetrant testing in concrete structures as are done in steel. Existing document may exist on this topic.

#### 7. Chapter outline update and discussion – Nick Carino

Reviewed of draft table of contents:

##### Chapter 2 – Definitions 7 Notation

Committee must decide if we provide terms and definitions or if we should refer to ACI terminology manual. This is the purpose of the terminology manual. Carino has prepared a listing of the two definitions; Committee needs to review and suggest to TAC if the definitions should be redefined. Defining types of distress is beyond the Committee's scope of work. Carino suggests we use definitions in CT to the extent possible. Suggests a Task Group to review comparison of definitions. Appears to be some difference between 201 and CT lists. Should correlate definitions both ways, which may entail

adding terms to both the committee report and the concrete terminology document. E. Giannini and D. Scott volunteered to provide a first-pass through these lists.

### Chapter 3 – Conducting the Visual Inspection

Inspection should be based upon experience and expertise. Review ACI 228.2R and use or expand as needed. Also review 349.3R as it related to performing an inspection. Review 437 may also contain relevant information.

Quantification of cracking may be an area where the committee can provide new guidance to the practice by developing some standardization. FHWA has done some work related to reliability and subjectivity of visual inspection. This information may be relevant to this document. Chapter may include a flowchart or guide of what to do in the field to assess the situation.

### Chapter 4 – Features Resulting from Concrete Placement

Issues that from a time between placement and setting.

### Chapter 5 – Features that Occur After Setting

Cold joints, cracks, distortion, etc.

### Chapter 6 – Durability Related Features

ASR, ACR, DEF, Freeze-thaw, Carbonation, Corrosion, Sulfate Attack, Acid Attack, Salt Crystallization.

### Chapter 7 – Other Features

Staining, Accretion, Erosion, Joint Deficiencies, Fire Damage.

Add discussion of pavement joints, curling, and warping.

### Chapter 8 – References

Possible section related to loss of support in this document (Possibly

Chapter 5)

8. Next meeting – Sunday, March 23, 2013 (Reno, NV)
9. Adjournment 2:26 pm

DRAFT



**Committee Meeting Sign In Sheet\***

Page:

Committee: **228B**

Date: **10/24/13**

**Name and Address (Please Print):**

- \* Members - Please give address, phone number, and e-mail only if changed
- \* Visitors - Please give complete address, phone number, and e-mail

Comm. Member ?	Visitor? **
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ERIC GIANNINI

✓

ROBIN TUCHSCHERER

✓

Jon Fook

✓

Khaterah Vaghefi (kvaghefi@mtu.edu)

✓

Nick Carino

✓

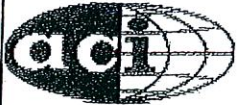
A. BOYD

✓

**\*Technical Committee Attendees:** The purpose of an ACI technical committee is to reach consensus and publish information on concrete-related issues within its mission. The discussions at the committee's meetings are part of this consensus process, and are not the official position of the committee. Only a published committee document represents the formal consensus of the committee and the Institute.

\*\* Visitors interested in committee membership should contact the chair or visit the ACI website, [www.concrete.org](http://www.concrete.org), for a membership application.





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Date: **20 Oct 13**

**Name and Address (Please Print):**

- \* Members - Please give address, phone number, and e-mail only if changed
- \* Visitors - Please give complete address, phone number, and e-mail

Comm. Member ?	Visitor? **
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<b>MICHAEL BROWN</b>		✓	
<b>DAVID B. SCOTT</b>		✓	
<b>BILL CIGGELAKIS</b> bill.ciggelakis@psuusa.com (Member of 228)		Yes	
<b>MALCOLM LIM.</b>		✓	
<b>JULIE ANN HUNT</b>			✓
<b>JOHN POPOVIC</b> JHNP@ILLINOIS.EDU MEMBER OF 228			✓
<b>Kerry Hall</b>		✓	

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