

ACI 318 Sub A – General Concrete and Construction

[ACI 318 Chapters 1, 2, 3 (excluding 3.5), 4, 5, 6, and 22
Reorganized Chapters 5, 22, and 23]

Phoenix Meeting

Tuesday, 22 October 2013, 1:30 PM to 6:00 PM, Meeting Room C-103A

AGENDA

1. Call to order at 1:30 pm.

2.1 Introductions and sign in.

2.2 Announcements:

a. During the San Antonio summer meeting, Terry spent approximately four hours resolving negatives related to Chapter 23. As of the end of this meeting, Chapter 23 through 23.4 was approved by 318.

b. Three Sub A items were out for 30-day review after San Antonio. These were Chapter 23, through 23.4, CA 104, and CA 123. All passed the review without comment.

c. Charlie Dolan sent a list of orphaned terminology. The only item from Sub A was s_s , for sample standard deviation. Dolan was advised that this term is no longer in use for proportioning concrete.

3. Approval of Agenda.

4. Approval of Minutes.

a. Minneapolis, 16 April 2013.

b. There was also an informal meeting in San Antonio during the 318 meeting on 23-24 July. No minutes were prepared for this meeting. The following topics were discussed during this meeting:

- Open issues on Chapter 23
- CA items that were planned to go forward to 318 in San Antonio
- Questions relating to the commentary

The following members were present: Holland, Browning, Suprenant, Bondy, Lobo, Fiorato, and Zeisler.

5. Old Business:

5.1 Ballot A05-2013 (closed 30 May 13.) This ballot was for all Sub A members. It covered seven CA items.

Item	Description	Neg.	Comments	Disposition
065	maximum size of aggregate	3	4	Comments addressed and submitted for approval on A08.
093	Interpolation of lambda	0	2	Comments addressed and submitted for approval on A08.
104A	Freezing and thawing	6	18	Item was rewritten and submitted on A08
113	Definitions	0	7	Comments addressed and submitted for approval on A08.
125	Cylinder size and strength acceptance	3	2	Comments addressed and submitted for approval on A08.

126	Discrepancy between 310 and 318	0	1	Comments addressed and submitted for approval on A08.
127	Remove two definitions	0	2	Comments addressed and submitted for approval on A08.

No further action required on this ballot.

5.2. Ballot A06-2013 (closed 31 May 13.) This ballot was for all Sub A members. It covered Sub A's responses to comments on Chapter 23 on 318 LB 13-2 and A03-13.

Item	Description	Neg.	Comments	Disposition
1	Chapter 23	59	110	All comments were addressed and changes were made for 318 LB 13-4.
2	Inspection section	16	18	All comments were addressed and changes were made for 318 LB 13-4.

No further action required on this ballot.

5.3. 318 LB 13-3 (closed 3 Jun 13.) This ballot covered six CA items.

Item	Description	Neg.	Comments	Disposition
069	Certified technicians	1	4	Comments prepared and submitted on A09 for approval.
092	Definition of strength test	1	12	Comments prepared and submitted on A09 for approval.
101	Measuring air	6	6	Comments prepared and submitted on A09 for approval.
118	Update C595 cements	6	17	Comments prepared and submitted on A09 for approval.
122	Add new admixture types	3	5	Comments prepared and submitted on A09 for approval.
123	Remove "class of concrete"	0	5	Comments prepared and submitted on A09 for approval.

No further action required on this ballot.

5.4. Ballot A08-2013 (closed 30 Jun 13.) This ballot was for all Sub A members. It covered the responses proposed for A05-2013 and the rewritten version of CA 104A.

Item	Description	Neg.	Comments	Disposition
065	maximum size of aggregate	1	5	Unable to resolve Hover negative. Will be addressed during the Phoenix meeting.
093	Interpolation of lambda	0	0	Ready for 318. On 318 LB 13-5.
104A (004)	Freezing and thawing	4	11	Comments resolved. Ready for 318. On 318 LB 13-5.
113	Definitions	0	0	Ready for 318. On 318 LB 13-5.
125	Cylinder size and strength acceptance	0	2	Comments resolved. Ready for 318. On 318 LB 13-5.
126	Discrepancy between 310 and 318	0	0	Ready for 318. On 318 LB 13-5.
127	Remove two definitions	0	0	Ready for 318. Rolled into CA113 for 318 LB 13-5.

Pending negative on CA 065 to be addressed.

5.5. Ballot A09-2013 (closed 30 Jun 13.) This ballot was for all Sub A members. It covered proposed responses to six CA items that were on 318 LB 13-3.

Item	Description	Neg.	Comments	Disposition
069	Certified technicians	1	3	On hold . Review in Phoenix.
092	Definition of strength test	0	1	Resolved. Return to 318. Not discussed in San Antonio because of lack of time.
101	Measuring air	0	3	Resolved. Return to 318. Not discussed in San Antonio because of lack of time.
118	Update C595 cements	0	3	Resolved. Return to 318. Not discussed in San Antonio because of lack of time.
122	Add new admixture types	0	4	Resolved. Return to 318. Not discussed in San Antonio because of lack of time.
123	Remove “class of concrete”	0	2	Comment resolved. No negatives on 318 LB 13-3, so this one was posted for 30 day review. See resolution below.

**Pending negative on CA 069 to be addressed.
Resolve pending items at 318 meeting.**

5.6. Ballot A07-2013 (closed 11 Jul 13.) This ballot was for Sub A only members. It covered Chapter 23 and was concurrent with 318 LB 13-4.

Item	Description	Neg.	Comments	Disposition
1	Chapter 23	Not counted	Not counted	All comments were included with comments from 318 13-4 for resolution. See comments below for 13-4.

No further action required on this ballot.

5.7. 318 LB 13-4 (closed 11 Jul 13.) This ballot covered Chapter 23.

Item	Description	Neg.	Comments	Disposition
1	Chapter 23	Not counted, 58 pages	Not counted, 58 pages	Some comments were sent to Subs B and G for resolution. Responses were developed and reviewed during two Sub A teleconferences. Comments through 23.4 were resolved during the San Antonio summer meeting and the Ch through 23.4 was approved. The approved portion of Ch 23 and proposed responses were balloted by Sub A on A10. Sections on formwork and inspection were not resolved during the 318 meeting.

No further action required on this ballot.

5.8. Ballot A10-2013 (closed 19 Aug 13.) This ballot was for all Sub A members. It covered four items as shown below.

Item	Description	Neg.	Comments	Disposition
1	Formwork responses to 318 LB 13-4	2	3	Comments resolved and posted for Sub A soft ballot. Further comments resolved. Submitted for 318 LB 13-6. See results below.
2	Revised formwork section	8	16	Comments resolved and posted for Sub A soft

				ballot. Further comments resolved. Submitted for 318 LB 13-6. See results below.
3	Ch 23 responses to 318 LB 13-4	4	12	Comments resolved and posted for Sub A soft ballot. Further comments resolved. Submitted for 318 30-day review. See results below.
4	Ch 23 as approved in San Antonio			Comments resolved and posted for Sub A soft ballot. Further comments resolved. Submitted for 318 30-day review. See results below.

No further action required on this ballot.

5.9. Ballot A11-2013(closed 3 Sep 13.) This ballot was for all Sub A members. It covered a straw poll regarding moving provisions into Ch 23 and items on inspection and commentary for Ch 23.

Item	Description	Neg.	Comments	Disposition
1-18	Straw poll on moving provisions	N/A	N/A	A summary has been prepared and was distributed. Four items were placed on 318 LB 13-6 and the responses are shown below. See resolution of these items below in 5.14.
19	Responses to 318 LB 13-4 on inspection	1	4	Responses prepared and submitted for approval on A12. See below.
3	Revised inspection provisions	12	14	Responses prepared and submitted for approval on A12. See below.
4	Commentary through 23.4	27	46	Responses prepared and submitted for approval on A12. See below.

No further action required on this ballot.

5.10 318 LB 13-5 (closed 6 Sep 13.) This ballot covered five CA items. These items had been approved on A08.

Item	Description	Neg.	Comments	Disposition
093	Interpolation of lambda	2	5	Responses prepared. Submitted for approval on A12.
104A (004)	Freezing and thawing	3	27	Responses prepared. Submitted for approval on A12.
113	Definitions	8	5	Many comments questioning whether definitions in ACI CT should or should not be included in 318. Discuss whether we want to go forward with any definitions at this time.
125	Cylinder size and strength acceptance	2	6	Responses prepared. Submitted for approval on A12.
126	Discrepancy between 310 and 318	0	2	Responses prepared. Submitted for approval on A12.

Determine appropriate actions for CA 113.

5.11. Ballot A12-2013 (closed 22 Sep 13.) This ballot was for all Sub A members. It covered proposed responses from 318 LB 13-5 for the CA items and proposed responses on the inspection items from A11. Responses were as shown below:

Item	Description	Neg.	Comments	Disposition
104A (004)	Freezing and thawing	2	4	Comments resolved and approved on soft ballot. Present to 318 in Phoenix to resolve

				one negative.
093	Interpolation of lambda	0	1	Comments resolved and approved on soft ballot. Present to 318 in Phoenix to resolve two negatives.
125	Cylinder size and strength acceptance	0	1	Comments resolved and approved on soft ballot. Present to 318 in Phoenix as ready for 30-day review.
126	Discrepancy between 310 and 318	1	0	Comments resolved and approved on soft ballot. Present to 318 in Phoenix as ready for 30-day review
	Responses inspection section on A11	4	2	Comments have been resolved and incorporated into inspection section.
	Revised inspection section on A11	10	12	There are several items pending that will be addressed by Sub A during the Phoenix meeting.

Need to review and approve presentations to resolve CA items for 318 meeting.
Need to discuss open items in inspection section.

5.12. 318 30-day review (closed 7 Oct 13.) This review covered items as shown below. Comments were as shown below:

Item	Description	Comments	Disposition
1	Ch 23 through 23.4	None	
2	CA 104	None	
3	CA 123	None	

These items are now approved. The CA items will be incorporated into the applicable chapters.

5.13. Ballot A13-2013 (closed 10 Oct 13.) This ballot was for all Sub A members. It included the items shown below. Responses were as shown below:

Item	Description	Neg.	Comments	Disposition
1	Proposed responses to A11 on commentary	1	4	Negative is addressed in item 2. All comments addressed.
2	Revised commentary	19	15	All negatives and comments addressed.

The comments have been reviewed and proposed responses have been prepared and are attached to this agenda.

Several items are marked to discuss in Phoenix. The will be discussed as part of Item 5.16.

5.14. 318 LB 13-6 (closed 11 Oct 13.) This ballot covered items as shown below. Comments were as shown below:

Item	Description	Neg.	Comments	Disposition
1	Formwork section	5	53	Responses to the 318 comments have been prepared by Dean and Terry. A copy is attached. Will resolve open issues in Phoenix.
CA 130	Straw ballot on moving four provisions into Ch 23	n/a	n/a	The results were mixed on the straw ballot. However, there was a majority on all of the items. The summary of the Sub A and 318 straw ballots on moving items has been updated and is attached to the minutes.

Item 1	Table with limits on pozzolans for F3			18 move, 9 leave. Will move.
Item 2	Table with alternate sulfate cements			19 move, 8 leave. Will move.
Item 3	Provisions regarding MSA			9 move, 19 Leave. Will be moved into Ch 5 (19).
Item 4	Provisions regarding air content			Tolerance on air – move. Reduce strength over 5,000 psi – leave.

Sub A resolve formwork issues in Phoenix.
Present to 318 for resolution of formwork during meeting.

5.15. Summary of all CA items. An updated list of all CA items is attached. This list currently shows 23 active items. Following are changes since the Minneapolis meeting:

CA 103 – Add “and roofs” to 6.4.4. Approved concurrently with Chapter 23/26.

CA 104 – Changes to exposure requirements. No comments on 30-day approval. Item is now approved.

CA 123 – Remove term “class of concrete”. No comments on 30-day approval. Item is now approved.

CA 127 – Delete two definitions. Rolled into CA 113 for 318 LB 13-5.

CA 129 – Look at use of term “when requested” throughout the code. Added after MSP.

CA 130 – Straw poll on moving four provisions. Added after MSP. On 318 LB 13-6. See item 5.14 for resolution. No further action required on this item.

5.15.1. Resolution of CA 121. Discuss whether it is necessary to go forward with this proposal.

5.16. Clean version of Chapter 26. A clean copy of Chapter 26 with as many as possible of the changes has been prepared and is attached to this agenda. Additional changes resulting from the meetings in Phoenix will be incorporated after the meeting. Sections of the Chapter from Subs B and G will also be incorporated. The final version will be sent for a 318 LB and concurrent Sub A ballot after the Phoenix meeting. Discuss to resolve open items.

5.17. Several code changes to accommodate moving provisions out of or into Chapter 5/19 have been prepared. These will be discussed during the meeting.

The following old business items will be discussed as time permits.

5.17. Performance specifications and implications for 318. Topic remains open for possible action during this code cycle.

5.18. Adding alkali-silica reactivity (ASR) to the Code. Of all of the major durability issues with concrete, only ASR is not addressed in the Code. After discussion, a Task Group of Folliard, Hooton, and Fiorato was formed to review this issue and make a recommendation to the committee during the meeting in New Orleans. In Chicago, Tony reported that ASTM C09 is preparing a specification for dealing with ASR. Sub A agreed to put any action on hold until that document is completed. It was agreed that it is still premature for Sub A to take any action here. This item will remain on the agenda until action is taken.

6. New Business:

Note that the following new business items are listed by title only because we will probably not have time to address them. If time is available or if a topic is of interest to a member, we will address these items.

- 6.1. Core waiting period.
- 6.2. Add recycled aggregate to the Code.
- 6.5. Various new work items resulting from review of Version 1 of the reorganized Code. **These items are being incorporated into the possible new work lists as chapters are adopted.**
- 6.6. w/cm versus strength for durability.
- 6.7. Chloride ion restrictions in concrete containing aluminum embedments.
- 6.9. Inquiry regarding appropriate strength for w/cm for durability.
- 6.10. Ward Malish issues regarding brackish water.
- 6.11. Review of EN Durability Classes.
- 6.12. Coverage of structural grout in the code. Issue was raised during the Minneapolis meeting.

Note: Except as noted, these items have not been addressed to date because of lack of time.

7. Adjourn.