
ACI SUBCOMMITTEE 350-E MEETING AGENDA

TO: J. ARDAHL (VICE-CHAIR)
S. CLOSE
C. GENTRY
C. HANSKAT
K. HARVEY
K. JACOBSON

N. LEGATOS
S. MARQUES
D. MCCARTHY (SECRETARY)
S. SACHDEV

CONSULTING MEMBERS:

D. KOHL
L. MRAZEK
N. PRACHAND

FROM: RAMON LUCERO

DATE: MONDAY APRIL 23, 2006

LOCATION: HOTEL: HILTON ATLANTA, ATLANTA, GA, ROOM: JEFFERSON

TIME: 1:00 PM – 6:30 PM

1. CALL TO ORDER

- a) Subcommittee Roster and Attendance
- b) Approval of Denver Meeting Minutes

2. OLD BUSINESS

Progress Report Task Force:

- a) Suggested relocation needed to incorporate shotcrete into main body of the Code.

Task Force:

Ryan Harvey and Lars Black

- b) Updates to Chapters 16 – 19 of current ACI 350.XX based on revisions done in ACI 318-05

Chapter 16 – Andrew Minogue

Chapter 18 – Dan McCarthy

Chapter 19 – Ryan Harvey

- c) It is not clear that the “cracking load” is not the same as the load which causes “ M_{cr} ”, which is defined on page 91, lines 18-19 as “moment causing flexural cracking at section due to externally applied loads”. (See also equation (11-11), page 95.) This is because the “cracking load” includes “ f_d ”, the “stress due to unfactored dead load, at extreme fiber of section where tensile stress is caused by externally applied loads”, which is not an “external load”, and is not included in M_{cr} .

Erroneously using M_{cr} instead of $(M_{cr} + M_d)$ for the “cracking load” is unconservative.

Suggestion: Add an equation, $\phi \times M_n$ is greater or equal to $1.2(M_{cr} + M_d)$, where M_d is defined as the moment resulting from f_d .

Task Force:

Ramon Lucero

- d) Add at the end of the sentence on page 252, line 13: “Relief valves must be of such design as to close tight when the hydrostatic pressure is relieved in order to prevent pollution of the groundwater.”

Task Force:

Ramon Lucero

- e) Revise minimum thickness for monolithic concrete and shotcrete, as well as for pre-cast concrete, to be consistent with Section 19.2.7. Also, clarify whether the 2 inch thickness for the outer shell of a ribbed dome only applies to un-reinforced elements – otherwise increase this thickness.

Reason: A dome roof is a shell and should meet the code requirements already defined for shells. The code should not have inconsistencies for similar elements covered in different sections. For ribbed domes, I feel that 2 inches is too thin to provide adequate corrosion protection if the section is reinforced.

Task Force:

Dan McCarthy, Ryan Harvey & Sal Marques

- f) Revise required concrete cover at reinforcement in shells/domes to be consistent with Section 7.7.

Reason: A dome roof is a shell and should meet the code requirements already defined for shells. The code should not have inconsistencies for similar elements covered in different sections.

Task Force:

Dan McCarthy, Ryan Harvey & Sal Marques

- g) Revise minimum cover for membrane slabs to be the same as specified for slabs on grade.

Reason: In my opinion, 1” cover is too low for slabs in EECS.

Task Force:

Dan McCarthy, Ryan Harvey & Sal Marques

- h) In Appendix section G.3.1: Replace “4 in” with “5 ¾ in”. Concrete cast on earth requires a minimum of 3 in. of cover (7.7.1(a)) under the reinforcement and another 2 in. of cover (7.7.1(b)) over it.

Task Force:

Dan McCarthy, Ryan Harvey & Sal Marques

- i) In Appendix section G.3.1: Replace “5 in” with “5 ¼ in”. See section 7.7.3.1

Task Force:

Dan McCarthy, Ryan Harvey & Sal Marques

- j) In Appendix Section G.3.1: Replace “6 in” with “7 in”. See section 7.6.2

Task Force:

Dan McCarthy, Ryan Harvey & Sal Marques

3. NEW BUSINESS

- a) Proposal by Steve Close to revisit Section 18.2.7 addressing the use of unbonded circular tendons in Environmental Concrete Structures.
- b) Proposal by Jon Ardahl to re-visit Section 18.16.3 addressing hydrostatic pressure requirements of unbonded single strand tendons in Environmental Concrete Structures.

4. REPORTS

- a) Prepare report for Wednesday’s session of the full 350 Committee

5. ADJOURN