

Attending

Voting Members: 8

Michael Hunter, Robert Esplin, Ryan Poole, Takashi Hara, Jason South, Andrew South, Ted Smulski, Charles Hanskat

Associate Members: 2

Peter Fedele, Bryan Butikofer

Visitors:5

Jim Ragland, Steve Ratchye, Khaled Nahlawi, Debra Smolski, Brandon Ross

- A. Jason South made a motion to approve the minutes. Ryan Poole seconded the motion. The motion passed unanimously.
- B. Reviewed upcoming webinar for ACI318; also upcoming Structures Congress in Boston (3-4 April 2014)
- C. Discussed involvement with ASCE-SEI.
- D. Takashi Hara volunteered to talk with Professor Harte about cooling towers and updating the ACI Document.
- E. ACI 334.1 Guide for Concrete Shell Structures, review of TAC Comments
- F. Robert Esplin volunteered to define Closed Form Solutions.
- G. Jason South continues working on the re-write on the history to make it more positive.
- H. Charles Hanskat to get egg shaped digester pictures.
- I. Ted Smulski will get some pictures of Barrel Vault Ted.
- J. Andrew South will try and get some pictures that David Billington, had in the shells book.
- K. Mike Hunter will contact Mario Sasson and request photos of Nervie's structures.
- L. It was noted that references to other ACI documents should not include the year designation.
- M. Chapter 3
Mike questioned why shell designs by different engineers end up being so vastly different. He cited letters from Dr. Wilson about factoring loads when using the ultimate

strength method. Jason South said the design for dead and live comparing ASD to ultimate uses steel strengths of 31.7ksi to 24ksi.

- N. Charles pointed out that shells are not 318 structures. Jason pointed out if a roof structure is designed with the strength design method, a person can get into trouble.
- O. Charles said creep can be a long term problem especially on low profile structures.
- P. Mike Hunter cited Tedesko who said there's a long term problem with creep.
- Q. Charles Hanskat observed that corrosion can be a problem and may require additional coverage.
- R. 546 revision working stress design is acceptable.
- S. Maybe better to use a factor to use strength design with a reduction factor.
- T. Charles said that is how liquid tanks do it.
- U. Jason said that a distinction should be made between an architectural, auditorium roof, and bulk storage applications where there are significant differences in the design
- V. It was proposed to establish a Task Group consisting of Jason South, Charles Hanskat, Ted Smulski, and Chris Zweifel to sort out what to do for Strength Design vs Allowable Stress Design. Task Group findings are due back in 3 months.
- W. Pictures are due back in 1 month.
- X. Discussion of current committee member status; also possible new persons to invite to join the committee.