ACI 544F – FRC Durability and Physical Properties Committee Meeting Agenda

Tuesday, April 14, 2015, 10:30 a.m. – 12:00 a.m.
Kansas City Marriott and Convention Center, Kansas City
C-2105

- CALL TO ORDER and INTRODUCTIONS
- APPROVAL OF AGENDA FOR KANSAS CITY MEETING
- APPROVAL OF MINUTES FROM WASHINGTON DC MEETING
- ANNOUNCEMENTS
- ACTIVITIES
  - ACI 350 Environmental structures – ACI 544F provided examples of environmental structures using steel fibers.
  - ACI SP299 "FRC for sustainable structures" published
  - TECHNOTES: Review priority, status of TechNotes, solicit work for documents in progress:
    - Use of fibers for reduction of gas and liquid permeability in concrete structures – Jean-Philippe Charron and Corina Aldea; re-write in progress.
    - Corrosion of steel fiber in FRC – Joaquim Barros, Mahmut Ekenel and Corina Aldea; ready for ballot in 544.
    - Shrinkage crack opening calculation of SFRC without rebar – Xavier Destree and Heidi Helmink.
    - Effect of fibers on freeze-thaw resistance – Cliff MacDonald and Simon Evans.
    - Emerging technologies – Florence Sanchez.
    - Blast resistance of FRC – Liberato Ferrara.
    - Smart FRC with sensing abilities – Nemy Banthia.
    - Suggested new TechNote: Environmental structures using steel fibers.
  - REVISIONS ACI 544.5R-10: Review status and solicit work for remaining chapters (details on the next page)

- NEW BUSINESS
- OTHER BUSINESS / PRESENTATIONS / INFORMAL DISCUSSION OF PROJECTS & TECHNICAL SESSIONS
- ADJOURNMENT

DETAILS - Task groups for ACI 544.5R-10 revisions

Chapter #	Chapter title	Team members	Timeline agreed
Chapter 1	Introduction and scope	Cliff MacDonald	
Chapter 2	Notation, definitions, and acronyms	Cliff MacDonald	
Chapter 3	Physical properties of FRC		
3.1	Creep	Jeff Nowak	
3.2	Shrinkage	Barzin Mobasher, Cliff MacDonald, (Rishi Gupta).	
3.3	Permeability and diffusion	Jean-Philippe Charron Alva Paled	
3.4	Rheology	Liberato Ferrara	
3.5	Electrical properties	Nemy Banthia, Liberato Ferrara	
3.6	Thermal conductivity	Barzin Mobasher	
Chapter 4	Durability of FRC		
4.1	Extreme temperatures and fire	Cliff MacDonald, Jeff Nowak	
4.2	Freezing and thawing	Cliff MacDonald, Simon Evans	
4.3	Degradation and embrittlement due to alkali attack and bundle effect 4.3.1 Glass fibers 4.3.2 Cellulose fibers	John Jones. Flavio Silva Degradation (carbon)	
4.4.	Weathering and scaling	Note: to be included in 4.2 Freezing and thawing, see above	
4.5	Corrosion resistance	Joaquim Barros, Nemy Banthia	
Chapter 5	Applications and durability-based design 5.1 Case studies of applications of FRC materials and durability	Mike Mahoney, Heidi Helmink	
New Chapter	Emerging Technologies (in collaboration with ACI 236, include sensing)	Florence Sanchez, Nemy Banthia	
Chapter 6	References	Barzin Mobasher, Corina Aldea, Mahmut Ekenel	Upon completion of all chapter revisions.