

AASHTO SUBCOMMITTEE ON MATERIALS (SOM)

TECHNICAL SECTION (TS) 3c HARDENED CONCRETE

AGENDA

**Pittsburgh, Pennsylvania
Wednesday August 5, 2015
10:00 a.m. 12:00 p.m.**

I. Call to Order/Opening Remarks/General Business

Chair, Mr. Steve Krebs (WI)

The chairman called the meeting to order and welcomed all attendees.

II. Roster

Please note any changes on the roster circulated and visitors sign in. For those member states that have new members to SOM 3C, please confirm membership on this technical section with the SOM secretary if you intend to remain on the technical section

An attendance sheet was passed around for all members, friends, and guests to signify their attendance. See pp. 7-8.

III. Approval of Technical Section 3c minutes from March 12, 2015 Mid year webinar.

Thursday March 12, 2015 meeting minutes – (See Attachments ##1 &2).

The minutes were briefly reviewed during the meeting. A motion was made by Nebraska to approve the minutes as written. A second was made by Rhode Island. The motion passed unopposed.

IV. Old Business

- Review of 2014 SOM Ballot Items - Revisions is included in the 35nd edition. Ballot results were resolved at the March 12th midyear meeting. 35th edition is now available.

- Tech Section Ballot on PP 54 Passed

A presentation on PP 54 will be given later in the meeting. A proposal will be made to ballot PP 54 as a full standard.

V. New Business

1. Listed standards due for review, which should lead to a ballot for revision or re-approval T140, T260, T323, T332, and T334.

T140, T260, T323, T332, and T334 will be balloted for reconfirmation in the fall SOM ballot.

Reconfirmation Standards due include T177 and PP58 (See Attachment #3 & 4).

2. Dr. John Popovics of University of Illinois to discuss research on PP54 – Match Curing of Concrete Test Specimens.

Dr. Popovics gave a presentation on research performed at the University of Illinois on Match Curing of Concrete Test Specimens in conjunction with Illinois DOT.

Dr. Popovics recommended the following in regard to PP54:

- PP 64 match curing procedure can be deployed with confidence for both air chamber and insulated jacket (Surecure) systems, and for both 4-in and 6-in cylinders. However, users should be watchful of Type 1 error for air chamber systems and Type II error with insulated jacked mold systems. It is recommended to change the limit to +4°F.
- The insulated jacket match cure systems for 6-in cylinders may not provide accurate in place strength prediction until control technology is improved.
- Water bath match curing system worked well and is recommended as a possible option for curing.

Provisional Standard that need to be considered for Full Standard –

- PP54.
- Based on the recommendations of Dr. Popovics, it was decided that a note will be added to the standard that addresses the first bullet point above.

- **With the addition of the note, a motion was made by Rhode Island and a second by Georgia to send the PP 54 to ballot as a full standard. The motion passed unopposed.**

3. Update on proposed Dual Ring Test Method by Amir Hanna - (See Attachment #5 & 6)

The chair and vice chair believe that this test procedure is ready to be a full AASHTO standard. There was some discussion as to whether the standard should be a provisional standard or go right to a full standard. Since there is no continuing research on this topic that will be forthcoming, members felt that a full AASHTO standard was most appropriate.

A motion was made to ballot the Dual Ring Test as a full standard method by Rhode Island. A second was made by Maryland. The motion passed unopposed.

4. NCHRP Issues by Amir Hanna

Mr. Hanna briefly discussed ongoing NCHRP activities related to the Tech Section:

- Entrained air voids (will be assigned within next month)
- Electrical resistivity (advisory panel being assembled)

Mr Hannah reminded attendees that very few projects in the area of concrete materials have been developed.

5. Pen DOT correspondence and comments on T24 – Andy Babish, VDOT.

Pennsylvania had comments on T24. These comments were briefly discussed by the vice chair.

- Section 7.3, moisture conditioning requirements do not allow for the method of immersion of the cores in a water bath (must be sealed in a bag for 5 days, etc).
- Pennsylvania would like to allow the immersion method in a water bath as a curing method.
- In 2001, the immersion method was included, but stated 40 hours.
- 5 days can create timeliness issues, and Pennsylvania questions why 40 hours was removed.
- During transport, the bags can be compromised, especially over long hauls.
- Pennsylvania has volunteered to write some revised language for T24.

A new task force was formed (TF 15-01). Pennsylvania will lead the task force. Virginia, Missouri, and Oklahoma will serve on the task force as well.

6. AASHTO PP-65-11 - Robert Horwhat of Pennsylvania DOT and Andy Babish of VDOT to discuss contents of Table 6 – “Minimum Levels of SCM to Provide Various Levels of Prevention” (see attachment #7).

- PP 65 needs to be considered for full standard.

Pennsylvania discussed some issues with the alkali level allowed for calcium oxide for Class C in Table 6. Pennsylvania suggests that these limits need to be revised, as the limits do not seem realistic. It is suggested that the alkali limit be changed to ≤ 5 .

ACTION ITEM: Gina Ahlstrom (FHWA) has contacted researchers who wrote the standard to see what the reasoning is for the current limits. She has not yet heard back and plans to follow-up so that we can have some kind of suggested revisions.

A motion was made by Rhode Island to move the standard to a full standard from a provisional by concurrent ballot. A second was made by Georgia. The motion passed unopposed.

Another motion was made by Rhode Island to ballot changes based on Gina's recommendations by concurrent ballot. The motion passed unopposed.

7. AASHTO T260 – Discuss suggested revisions provided by Mr. Dale Miller of BASF, (see attachment #8).

The Chairman received an email from Mr. Dale Miller from BASF. The email stated concerns regarding Section 4 (reagents) (Mr. Miller mistakenly refers to Section 3). In Section 4, methyl orange indicator is listed, but later in the procedures for acid and water-soluble chloride ion content, methyl orange is added dropwise to the sample solution, and then the pH is adjusted with concentrated nitric acid. Mr. Miller suggested that the preparation of methyl orange indicator solution be included in the reagent section.

The chairman will follow up with Mr. Miller to get clarification on his concerns. It was suggested that a note be added to Section 4 referring to the procedure for preparation of the methyl orange indicator. The chairman will determine if this editorial change would satisfy Mr. Miller's concerns.

8. Dr. Anol Mukhopadhyay of Texas A & M and Cecil Jones of Diversified Engineering Services, Inc. to discuss “Simplified Method to Predict the Potential of Alkali-Silica Reaction” in a short time frame.

Cecil Jones and Dr. Mukhopadhyay gave a brief presentation on a Simplified Method to Predict the Potential of Alkali-Silica Reaction.” At the end of the presentation Dr. Mukhopadhyay presented 3 different options on how to proceed based on research results found in working on a this new method of predicting ASR.

The report and data will be include with the meeting minutes. The chairman proposed that we hold a webinar in September to more fully review and discuss the information presented so that the tech section can make some decisions on where to go with the information that was presented and work toward developing AASHTO standards.

This information was also presented to ASTM, but no standard has been developed yet. Three new standards are proposed (2 test methods and a standard practice). Test methods could be prepared for ballot in time for fall ballot period. The standard practice will take some additional time. Equipment is not yet commercially available, but there have been discussions with Humboldt, and it is possible that the equipment could be made commercially available.

Further discussion will take place during the September webinar. AASHTO staff will put together a Doodle Poll to determine availability of the tech section members. We will shoot for late September.

9. Concrete consortium meeting will be coming up in September. Tech Section members were invited to attend.
10. New research proposals?

- TRB committee working on “Durability and Service Life on Cracked Concrete” – Headed by Tyson of LA DOTD and Mark Felag of Rhode Island.
 - Discussion on the Revised version of “Durability and Service Life of Cracked Concrete” ; (see attachment #9).

This research problem statement has already been endorsed by TS 3a and TS 3b.

A motioned was made by Rhode Island for TS 3c to ensorse this research problem statement in TS 3b as well. A second was made by Michigan. The motion passed unopposed.

- Update from NC².

A presentation was made last year on thickness acceptance by electronic measurement (non-destructive means). Many members in attendance have been using this procedure and have had good results. **A motion was made at the 2014 meeting to ballot this as a full standard. The chairman intends to proceed with the ballot this fall.**

VI. Adjourn

First Name	Last Name	Title	Email	Phone
Rob	Carroll	COO	rcarroll@atspa.com	724-283-1212
Maria	Knake	AMRL	mknake@amrl.net	240-436-4804
Ron	Holsinger	Consultant	ronald20405@comcast.net	301-916-2507
MacKenzie	Fountain	MS DOT	mfountain@mdot.ms.gov	662-563-4271
Mick	Syslo	NE DOR	mick.syslo@nebraska.gov	402-479-4750
Sejal	Barot	MD SHWA	sbarot@sha.state.md.us	443-572-5269
Greg	Milburn	WY DOT	greg.milburn@wyo.gov	307-777-4070
William	Rogers	Georgia Asphalt Pavement Association	wrogers@gahotmix.com	770-378-5206
Richard	Bradbury	MEDOT	richard.bradbury@maine.gov	207-441-2474
Cecil	Jones	Diversified Engineering Services Inc.	cecil.jones@nc.rr.com	919-616-5139
Paul	Tennis	Portland Cement Association	ptennis@cement.org	803-493-5441
Eric	Carleton	National Precast Concrete Association	ecarleton@precast.org	
James	Hammons	MS DOT	jchammons@mdot.ms.gov	601-359-9770
Andy	Mergenmeier	FHWA	andy.mergenmeier@dot.gov	410-962-0091
Anne	Holt	Ontario Ministry of Transportation	anne.holt@ontario.ca	416-235-3724
Steve	Lenker	Director AMRL/CCRL	slenker@amrl.net	240-336-4770
Scott	Andrus	UTDOT	scottandrus@utah.gov	801-965-4859
Steven	Krebs	WI DOT	steven.krebs@dot.wi.gov	
Curt	Turgeon	MN DOT	curt.turgeon@state.mn.us	
Brett	Trautman	MO DOT	brett.trautman@modot.mo.gov	573-751-1036
Mark	Felag	RI DOT	mark.felag@dot.ri.gov	401-641-8279
Robin	Graves	Vulcan Materials Company	gravesr@vmcmail.com	
Michael	Black	KY Transportation Cabinet	michael.black@ky.gov	502-564-3160
John	Popovics	Professor	johnpop@illinois.edu	
Mostafa	Jamshidi	NE DOR	moe.jamshidi@nebraska.gov	402-479-4671
Richard	Kreider	KS DOT	richard.kreider@ksdot.org	785-296-2231
Lisa	Zigmund	OH DOT	lisa.zigmund@dot.state.oh.us	614-275-1351
John	Staton	MI DOT	statonj@michigan.gov	517-322-5701
Peter	Wu	GA DOT	pwu@dot.ga.gov	404-608-4840
Jeff	Speck	Trinity Expanded Shale & Clay	jeffery.speck@trin.net	678-777-6278
Wallace	Heyen	NDOR	walley.heyen@nebraska.gov	402-479-4677
Darren	Hazlett	TX DOT	darren.hazlett@txdot.gov	512-416-2456
Timothy	Ramirez	PENNDOT	tramirez@pa.gov	717-783-6602
Jennifer	Albert	FHWA	jennifer.albert@dot.gov	717-221-3410

Georgene	Geary	GGfGA Engineering, LLC	ggeary@ggfga.com	770-337-5817
Todd	Arnold	Division Manager	tarnold@pineinst.com	
Charles	Babish	VADOT	andy.babish@vdot.virginia.gov	804-328-3102
Colin	Lobo	NRMCA	clobo@nrmca.org	240-485-1160
Greg	Stellmach	OR DOT	greg.f.stellmach@odot.state.or.us	503-986-3061
Jack	Springer	FHWA	jack.springer@dot.gov	202-493-3144
Kenny	Seward	OK DOT	kseward@odot.org	405-522-4999
Desna	Bergold	WAQTC	dbconsulting.desna@gmail.com	801-721-7146
Garth	Newman	WAQTC	garth.newman@itd.idaho.gov	208-334-8039
John	Melander	John M Melander, Consultant	jmmelander@gmail.com	847-942-2332
Brian	Johnson	AMRL	bjohnson@amrl.net	240-436-4820
William	Ahearn	VT Agency of Transportation	bill.ahearn@state.vt.us	802-828-3751
Darin	Tedford	NV DOT	dtedford@odot.state.nv.us	775-888-7784
Matthew	Bluman	AASHTO (AMRL)	mbluman@amrl.net	240-436-4849
Anol	Mukhopadhyay	Research Scientist	anol@tamu.edu	979-458-4618
David	Savage	CMEC	davesavage@cmecc.org	407-628-3682
Alicea	Drischler	Applied Test Systems	adrischler@atspa.com	
Gina	Ahlstrom	FHWA	gina.ahlstrom@dot.gov	202-366-4612
Jesus	Sandoval-Gil	AZ DOT	jsandoval-gil@azdot.gov	928-200-4260
Karl	Zipf	Del DOT	karl.zipf@state.de.us	302-760-2380
Gregory	Schieber	KS DOT	gregory.schieber@ksdot.org	785-291-3856
Amir	Hanna	TRB	ahanna@nas.edu	202-334-1432
Robert	Lauzon	ConnDOT	robert.lauzon@ct.gov	860-258-0312
Mike	Mance	WV DOH	mike.a.mance@wv.gov	304-558-9846
James	Bibler	Gilson Company, Inc.	jbibler@gilsonco.com	800-444-1508
Michael	Doran	TNDOT	michael.doran@tn.gov	615-350-4105
Chris	Abadie	LADOTD	chris.abadie@la.gov	225-248-4131
Reid	Castrodale	Expanded Shale Clay & Slate Institute	rcastrodale@escsi.org	704-904-7999

First	Last	Company	Email	Phone	TS
Ross	Metcalfe	MT DOT	rmetcalfe@mt.gov	406-444-9201	TS3c
Rob	Carroll	COO	rcarroll@atspa.com	724-283-1212	TS3c
Maria	Knake	AMRL	mknake@amrl.net	240-436-4804	TS3c
Ron	Holsinger	Consultant	ronald20405@comcast.net	301-916-2507	TS3c
MacKenzie	Fountain	MS DOT	mfountain@mdot.ms.gov	662-563-4271	TS3c
Mick	Syslo	NE DOR	mick.syslo@nebraska.gov	402-479-4750	TS3c
Sejal	Barot	MD SHWA	sbarot@sha.state.md.us	443-572-5269	TS3c
Greg	Milburn	WY DOT	greg.milburn@wyo.gov	307-777-4070	TS3c
William	Rogers	Georgia Asphalt Pav	wrogers@gahotmix.com	770-378-5206	TS3c
Richard	Bradbury	MEDOT	richard.bradbury@maine.gov	207-441-2474	TS3c
Cecil	Jones	Diversified Enginee	cecil.jones@nc.rr.com	919-616-5139	TS3c
Paul	Tennis	Portland Cement A	ptennis@cement.org	803-493-5441	TS3c
Eric	Carleton	National Precast Co	ecarleton@precast.org		TS3c
James	Hammons	MS DOT	jchammons@mdot.ms.gov	601-359-9770	TS3c
Andy	Mergenmeier	FHWA	andy.mergenmeier@dot.gov	410-962-0091	TS3c
Anne	Holt	Ontario Ministry of	anne.holt@ontario.ca	416-235-3724	TS3c
Steve	Lenker	Director AMRL/CCR	slenker@amrl.net	240-336-4770	TS3c
Scott	Andrus	UTDOT	scottandrus@utah.gov	801-965-4859	TS3c
Steven	Krebs	WI DOT	steven.krebs@dot.wi.gov		TS3c
Curt	Turgeon	MN DOT	curt.turgeon@state.mn.us		TS3c
Brett	Trautman	MO DOT	brett.trautman@modot.mo.gov	573-751-1036	TS3c
Mark	Felag	RI DOT	mark.felag@dot.ri.gov	401-641-8279	TS3c
Robin	Graves	Vulcan Materials C	gravesr@vmcmail.com		TS3c
Michael	Black	KY Transportation C	michael.black@ky.gov	502-564-3160	TS3c
John	Popovics	Professor	johnpop@illinois.edu		TS3c
Mostafa	Jamshidi	NE DOR	moe.jamshidi@nebraska.gov	402-479-4671	TS3c
Richard	Kreider	KS DOT	richard.kreider@ksdot.org	785-296-2231	TS3c
Lisa	Zigmund	OH DOT	lisa.zigmund@dot.state.oh.us	614-275-1351	TS3c
John	Staton	MI DOT	statonj@michigan.gov	517-322-5701	TS3c
Peter	Wu	GA DOT	pwu@dot.ga.gov	404-608-4840	TS3c
Jeff	Speck	Trinity Expanded St	jeffery.speck@trin.net	678-777-6278	TS3c
Wallace	Heyen	NDOR	walley.heyen@nebraska.gov	402-479-4677	TS3c
Darren	Hazlett	TX DOT	darren.hazlett@txdot.gov	512-416-2456	TS3c

Timothy	Ramirez	PENNDOT	tramirez@pa.gov	717-783-6602	TS3c
Jennifer	Albert	FHWA	jennifer.albert@dot.gov	717-221-3410	TS3c
Georgene	Geary	GGfGA Engineering	ggeary@ggfga.com	770-337-5817	TS3c
Todd	Arnold	Division Manager	tarnold@pineinst.com		TS3c
Charles	Babish	VADOT	andy.babish@vdot.virginia.gov	804-328-3102	TS3c
Colin	Lobo	NRMCA	clobo@nrmca.org	240-485-1160	TS3c
Greg	Stellmach	OR DOT	greg.f.stellmach@odot.state.or.us	503-986-3061	TS3c
Jack	Springer	FHWA	jack.springer@dot.gov	202-493-3144	TS3c
Kenny	Seward	OK DOT	kseward@odot.org	405-522-4999	TS3c
Desna	Bergold	WAQTC	dbconsulting.desna@gmail.com	801-721-7146	TS3c
Garth	Newman	WAQTC	garth.newman@itd.idaho.gov	208-334-8039	TS3c
John	Melander	John M Melander, (jmmelander@gmail.com	847-942-2332	TS3c
Brian	Johnson	AMRL	bjohnson@amrl.net	240-436-4820	TS3c
William	Ahearn	VT Agency of Trans	bill.ahearn@state.vt.us	802-828-3751	TS3c
Darin	Tedford	NV DOT	dtedford@odot.state.nv.us	775-888-7784	TS3c
Matthew	Bluman	AASHTO (AMRL)	mbluman@amrl.net	240-436-4849	TS3c
Anol	Mukhopadhyay	Research Scientist	anol@tamu.edu	979-458-4618	TS3c
David	Savage	CMEC	davesavage@cmecc.org	407-628-3682	TS3c
Alicea	Drishler	Applied Test System	adrischler@atspa.com		TS3c
Gina	Ahlstrom	FHWA	gina.ahlstrom@dot.gov	202-366-4612	TS3c
Jesus	Sandoval-Gil	AZ DOT	jsandoval-gil@azdot.gov	928-200-4260	TS3c
Karl	Zipf	Del DOT	karl.zipf@state.de.us	302-760-2380	TS3c
Gregory	Schieber	KS DOT	gregory.schieber@ksdot.org	785-291-3856	TS3c
Amir	Hanna	TRB	ahanna@nas.edu	202-334-1432	TS3c
Robert	Lauzon	ConnDOT	robert.lauzon@ct.gov	860-258-0312	TS3c
Mike	Mance	WV DOH	mike.a.mance@wv.gov	304-558-9846	TS3c
James	Bibler	Gilson Company, In	jbibler@gilsonco.com	800-444-1508	TS3c
Michael	Doran	TNDOT	michael.doran@tn.gov	615-350-4105	TS3c
Chris	Abadie	LADOTD	chris.abadie@la.gov	225-248-4131	TS3c
Reid	Castrodale	Expanded Shale Cla	rcastrodale@escsi.org	704-904-7999	TS3c