



SUBCOMMITTEE ON MATERIALS (SOM)

100th Annual Meeting – Minneapolis, Minnesota

Thursday, July 31, 2014

8:00 am – 10:00 am CST

TECHNICAL SECTION (TS) 2a

Emulsified Asphalts

MEETING MINUTES

- I. **Call to Order and Opening Remarks** – TS 2a, Emulsified Asphalts, met on Thursday, July 31, 2014, in Minneapolis, Minnesota, with 12 members, one proxy, and 39 visitors in attendance. Chairman Ron Horner from North Dakota opened the meeting at 8:05 a.m. He introduced himself and Vice-Chairman Allen Myers from Kentucky. Chairman Horner noted that the TS 2a meeting agenda was provided on the AASHTO website earlier this month, but the attachments to the agenda are available as hand-outs at the meeting today.
- II. **Roll Call** – Chairman Horner informed the group that the TS 2a meeting sign-in sheet was being circulated. He solicited any interested parties to join TS 2a. The completed TS 2a meeting sign-in sheet is attached to these minutes. As indicated on the sign-in sheet, Aaron Gillispie from West Virginia and Oak Metcalfe from Montana expressed an interest in joining TS 2a.
- III. **Approval of Technical Section Minutes August 2013** – Chairman Horner reported that these minutes were approved during the mid-year web meeting on March 18, 2014.
- IV. **Old Business**
 - A. Previous Year SOM Ballot Items
 - i. T 59 Testing Emulsified Asphalt

43-Affirmative / 1-Negative (Arkansas) / 7-No Vote
The negative vote from Arkansas suggested a separate standard for the thermometer requirements provided in AASHTO T 59. Including the specifications at every location that a thermometer is referenced in the method creates unnecessary verbiage. Chairman Horner discussed this issue with AMRL personnel earlier in the week, and AMRL has agreed to create this document.
 - B. Approval of March 18, 2014, Mid-Year Web Meeting Minutes (Attachment 1) – Bill Bailey from Virginia offered a motion to approve these minutes as written. The motion was seconded by Chris Abadie from Louisiana, and it passed the technical section unanimously.
 - C. June 2014 TS 2a Ballot – SOM-TS2a-14-01
 - i. T 59 Emulsified Asphalts

14-Affirmative / 1-Negative (Kentucky) / 3-No Vote

Comments Received:

Kentucky, Allen Myers:

4.4.2 – If a sample is at least 122 °F when it is weighed for the distillation test, would this have any impact on the correction factor used in 6.4.6? Isn't the standard 1.5 g addition is based on the difference between 77 °F (or room temperature) and 500 °F?

4.4.4 – Performing this item will make it more difficult for our laboratory to test the number of required daily samples. Including this step would involve additional testing time for each sample, and possibly time for the water bath to arrive at temperature. The reproducibility/repeatability of this test does not seem unreasonable, so is the time and energy required here worth the results? Has anyone done any comparisons between “room temperature” samples and 77 °F samples to justify this change?

Brian Johnson from AMRL discussed these issues with Kentucky Transportation Cabinet personnel prior to the TS 2a meeting. He considered the requirement to stir the sample only after it reaches the conditioning temperature. Mr. Johnson suggested a revision to address the concern by allowing the sample to be stirred when it reaches room temperature. He noted that individual test methods with specific requirements in this area would supersede T 59. In addition, the temperature requirement in the sampling section was changed. Mr. Johnson discussed some minor editorial changes and renumbered sections as well. He recommended that the standard be accepted as proposed, and the other changes be placed on a concurrent ballot this fall.

Note 10 – Immersing the bottom of a hot still in a pan of cold water does not appear to be a safe way to lower the temperature. Simply turning down the burner works effectively and involves less chance of spills or burns.

Mr. Johnson also discussed this concern with Kentucky. The Rocky Mountain Asphalt User/Producer Group reports the use of this procedure routinely. Chairman Horner decided to proceed with the note as balloted.

10.4.3 – If an RS-2 should be preconditioned to 122 °F per 4.4.2, should this say “Heat or cool the sample of emulsified asphalt.....”?

Chairman Horner responded that this suggestion was adopted editorially and addressed in Section 4 of AASHTO T 59.

FHWA – Michael Voth:

Under examination of residue in section 22, why is ASTM D 128 referenced for ash content as opposed to referencing AASHTO T 111?

Mr. Johnson will review this question.

Also, under examination of residue, in section 23, would it be appropriate to include an alternative method for labs that do not use trichloroethylene such as ASTM D 5546 (solubility by toluene)?

Chairman Horner agreed with this suggestion. The solubility change will be incorporated into the concurrent ballot item.

Texas, Darren Hazlett:

One observation is that there are some references to distilled water. We had some questions come up on a NTPEP work plan about exactly what this means. To answer this, we referenced ASTM D 1193 reagent water, Type II. I don't know if this is something we need to address here or not; just something that has come up in another area.

Chairman Horner requested that the AMRL staff review the standards requiring deionized or distilled water and provide recommendations. James Williams from Mississippi reported that this issue was also a concern to Technical Section 1a (Soil and Unbound Recycled Materials Test Methods). He suggested the possibility of an NCHRP 20-07 research project to study this topic. Maria Knake from AMRL proposed that her staff be allowed to consider the issue first.

When the discussion regarding this standard was completed, Michael Voth from FHWA presented a motion to place the modified AASHTO T 59 on this fall's SOM ballot as a concurrent item. Tim Ramirez from Pennsylvania seconded the motion, and it passed unanimously. This item will be **CONCURRENT BALLOT ITEM # 1.**

ii. T 72 Saybolt Viscosity. Reconfirmation

15-Affirmative / 3-No Vote
This method was reconfirmed.

iii. T 78 Distillation of Cutback Asphalt Products. Confirmation to remove Figure 4, crow receiver.

15-Affirmative / 3-No Vote
This change was approved by TS 2a.

iv. T 302 Polymer Content of Polymer-Modified Emulsified Asphalt Residue and Asphalt Binders. Confirmation to remove 1.2.

15-Affirmative / 3-No Vote
This change was approved by TS 2a.

v. TP 91 Determining Asphalt Binder Bond Strength by Means of the Binder Bond Strength (BBS) Test. Confirmation of numerous changes to address previous ballot comments.

15-Affirmative / 3-No Vote
These changes were approved by TS 2a.

D. Task Force Reports

- i. Task Force 2a-2011-01 to revise PP 71 – This task force is charged with revising AASHTO PP 71 in response to the negative vote from Minnesota and other comments received on the 2010 SOM ballot. The responsibilities of this group were expanded to include resolution of the negative votes and comments submitted for AASHTO PP 72 and TP 91. The group is comprised of Chairman Horner, Chris Peoples from North Carolina, Mr. Bailey, a representative from Minnesota, and Colin Franco from Rhode Island [representing the Emulsion Task Force (ETF) of the Pavement Preservation Expert Task Group (ETG)]. The ETF originally submitted these provisional standards for TS 2a review. The ballot comments for PP 71 were distributed to the ETF for recommendation. Chairman Horner remarked that limited information has been received to date from the ETF regarding AASHTO PP 71. This task force will continue.
- ii. Task Force 2a-2012-01 to determine proper specification values for polymer-modified cationic slow-setting emulsion for inclusion in M 316 – The group is comprised of Mr. Ramirez, Darren Hazlett from Texas, and Mr. Gillispie. Chairman Horner has received recommendations from the ETF on AASHTO M 316. This information resulted in several proposed revisions to this specification as discussed below. Given these efforts,

Chairman Horner retired Task Force 2a-2012-01 and thanked the members for their service.

V. New Business

A. Proposed New Standards

i. Provisional Standards (Attachments 2-5)

1. Materials for Micro Surfacing
2. Micro Surfacing Design
3. Materials for Emulsified Asphalt Chip Seal
4. Emulsified Asphalt Chip Seal Design Practice
 - a. Chairman Horner updated the technical section on these four provisional standards. These standards were reviewed and then returned to the ETF for more attention. Specifically, some of the standards are lacking “purpose and need” statements. Also, not all of them were developed in standard AASHTO format. To summarize, Chairman Horner declared that the proposed standards are not quite ready for ballot.
 - b. Mr. Franco, a member of the Pavement Preservation ETG, thanked the technical section for the thorough review and suggested changes. He noted that the proposed standards resulted from much collaboration between state agencies and industry representatives. He remarked that states are more likely to utilize AASHTO standards; these documents provide good tools for preventive maintenance operations. Mr. Franco affirmed his commitment to develop standards that meet the states’ needs. The ETF understands that improvements are needed in the draft standards. Chairman Horner stated that after the four provisional standards are improved, he will ballot them within TS 2a.

B. Proposed Changes to Existing Standards

i. T 59 Section 4, Table 1 – Conditioning Temperatures and Suitable Ranges for Thermometers

Changes to table were suggested at March 18, 2014 Webinar.

VI.	Initial Sample Temperature	Conditioning Temperature	Conditioning Temperature Adjustment	Maximum Bath or Oven Temperature	Thermometer Temperature Range
	Below 25°C (77°F)	25°C (77°F)	Heat sample to least 25°C (77°F)	74°C (165°F)	19 to 27°C (66 to 80°F)
	Above 25°C (77°F)	25°C (77°F)	Cool sample to appropriate test temperature identified in the test sections of this standard.	n/a	19 to 27°C (66 to 80°F)
	Below 50°C (122°F)	50°C (122°F)	Heat sample to least 50°C (122°F)	74°C (165°F)	49 to 57°C (120 to 134°F)
	Above 50°C (122°F)	50°C (122°F)	Cool sample to appropriate test temperature identified in the test sections of this standard.	n/a	49 to 57°C (120 to 134°F)

Chairman Horner noted that the information in this table was discussed earlier in the TS 2a meeting. Mr. Johnson explained that the proposed table simply contains information from the text in AASHTO T 59 in tabular form.

ii. M 140 Emulsified Asphalt (Attachment 6)

M 140 is currently a category C standard and has been rewritten as a category A standard due to numerous changes and additions. The specification is now more logical and consistent with the proposed M 208 and M 316 specifications. The specification covers 15 grades of emulsified asphalt including grades for various climatic conditions. The coating tests have been deleted. The test for solubility in trichloroethylene has been replaced with T 111, ash content. Targets and ranges for viscosity, percent residue, and penetration were also updated to match current state of practice. All of the changes and additions were developed by the FHWA/AASHTO Emulsion Task Force, which includes representatives from state DOTs, academia, and industry.

iii. M 208 Cationic Emulsified Asphalt (Attachment 7)

Editorial changes were completed to align the specification language with M 140 and M 316. The specification is now more logical and consistent with the proposed M 140 and M 316 specifications. The proposed specification covers an additional 5 grades of cationic emulsified asphalt including grades for various climatic conditions. The coating tests have been deleted. The test for solubility in trichloroethylene has been replaced with T 111, ash content. References to T 49 (penetration) and T 51 (ductility) were added because these test methods are included in the Table 1 requirements. Targets and ranges for percent residue and penetration were also updated to match current state of practice. All of the changes and additions were developed by the FHWA/AASHTO Emulsion Task Force, which includes representatives from state DOTs, academia, and industry.

iv. M 316 Polymer-Modified Cationic Emulsified Asphalt (Attachment 8)

Editorial changes were completed to align the specification language with M 140 and M 208. The specification is now more logical and consistent with the proposed M 140 and M 208 specifications. The specification now covers 11 grades -both anionic and cationic- of polymer-modified emulsified asphalt, including grades for various climatic conditions. The specification grades are neutral to the type of modifier being used and "P" is used to designate all polymer modifiers regardless of type. The test for solubility in trichloroethylene has been replaced with T 111, ash content. References to T 50 (float test) and T 53 (softening point) are added because these test methods are now included in the requirements for certain grades. References to T 51 (ductility), T 300 (force ductility), and T 302 (polymer content by infrared spectrum) are deleted because polymer dosage can be evaluated with the elastic recovery test (T 301). All of the changes and additions were developed by the FHWA/AASHTO Emulsion Task Force, which includes representatives from state DOTs, academia, and industry.

While discussing the updates to these specifications, Mr. Franco expressed a desire to develop unified emulsion standards. He thanked Mr. Voth for coordinating the work of several agencies on AASHTO M 140, M 208, and M 316. Mr. Voth explained that the goal was to ensure that these standards were compatible with the new chip seal, slurry seal, and microsurfacing specifications. He noted that AASHTO M 140 is now a "solely owned" standard. Also, some different emulsion grades were added to the standards. In general, these specifications were revised to modernize them and make them more uniform.

Mr. Voth asked if a technical section ballot was appropriate to review the standards, and Chairman Horner initially agreed. Discussion ensued about the possibility of completing a TS 2a ballot prior to the SOM ballot in the fall. Mr. Franco requested that the standards be advanced as soon as possible. Jack Springer from FHWA stated that a web meeting would be necessary since the technical section must recommend advancement of these standards prior to the SOM ballot in the fall.

Mr. Williams offered a motion to present AASHTO M 140, M 208, and M 316 on a concurrent ballot this fall; Mr. Abadie seconded this motion. During the discussion of the motion, Chairman Horner encouraged the group to review the agenda attachments involving these standards prior to the ballot. In fact, the modified standards will be distributed to TS 2a again to allow time for review. Chairman Horner asked Mr. Voth to summarize the changes to these specifications. Mr. Voth described the additional emulsion grades, change in the solubility test, numerous editorial revisions, and removal of AASHTO T 302 due to little usage by state agencies. At this point, the motion passed TS 2a without dissent. AASHTO M 140 will be **CONCURRENT BALLOT ITEM # 2**. AASHTO M 208 will be **CONCURRENT BALLOT ITEM # 3**. Finally, AASHTO M 316 will be **CONCURRENT BALLOT ITEM # 4**.

- v. Previously submitted Provisional Standards based on the recommendations of NCHRP 14-17, Manual for Emulsion-Based Chip Seals for Pavement Preservation (NCHRP Report 680): (Currently on hold waiting for updates from ETF)

Standard Method of Test for Determining the Strain Sensitivity of Asphalt Emulsion Residue Using Strain Sweeps Performed on a Dynamic Shear Rheometer (DSR)

Standard Method of Test for Embedment Depth of Chip Seal Aggregates in the Lab and the Field

Standard Method of Test for Laboratory Chip Loss from Emulsified Asphalt Chip Seal Samples

Standard Method of Test for Measuring Moisture Loss from Chip Seals

Standard Method of Test for Recovery of Asphalt from Emulsion by Stirred-Can Method

Standard Method of Test for Field Emulsion Viscosity

Chairman Horner explained that these provisional standards were still under review by the ETF in preparation for future ballot. Mr. Voth remarked that all polymerized emulsions will be designated with a "P" in subsequent standards.

- vi. T 40 Sampling Bituminous Materials

Chairman Horner reminded the technical section of the effort to update the sampling devices in AASHTO T 40. A survey was sent to the states, and the comments received from the survey have been incorporated. Also, Cecil Jones from [Diversified Engineering Services](#) proposed several edits to this standard. Mr. Jones is attempting to modify this method to be a solely owned standard. Chairman Horner declared the revised AASHTO T 40 to be ready for ballot. He polled TS 2a about their preference for a technical section or concurrent ballot to consider it. Mr. Bailey expressed his opinion that a concurrent ballot would be best. In fact, he offered a motion to forward the revised AASHTO T 40 to a concurrent ballot, and Mr. Williams seconded his motion.

Mr. Peoples requested a summary of the changes to AASHTO T 40. This standard is not included as an attachment to the TS 2a meeting agenda. Mr. Williams responded that the revisions were sorely needed to modernize T 40; therefore, he favors a concurrent ballot. Mr. Williams asked if this standard is actually a method or a practice. Chairman Horner suggested distributing the modified standard to the entire SOM prior to the fall ballot to allow time for a thorough review.

After further discussion on this matter, TS 2a decided to create a task force to review the proposed changes to AASHTO T 40 prior to the concurrent ballot in the fall. Members will include Messrs. Bailey, Franco, Johnson, Peoples, and Williams. This group will be designated as **TASK FORCE 2a-2014-01**. At this point, the technical section approved the earlier motion unanimously. AASHTO T 40 will be **CONCURRENT BALLOT ITEM # 5**.

C. Proposed New Task Forces

- i. As discussed above, TS 2a organized one new task force during the 2014 meeting. Task Force 2a-2014-01 is comprised of Mr. Bailey (VA), Mr. Franco, (RI), Mr. Johnson (AMRL), Mr. Peoples (NC), and Mr. Williams (MS). This group will review the proposed changes to AASHTO T 40 and determine if other revisions are necessary. The review will be completed, and comments returned to Chairman Horner, by September 15, 2014.

D. Standards Requiring Reconfirmation or Extension

- i. T 300, Force Ductility Test of Bituminous Materials
 1. This method will be presented on a TS 2a reconfirmation ballot next spring.
- ii. T 301, Elastic Recovery Test of Asphalt Materials by Means of a Ductilometer
 1. Given the trend toward asphalt binder testing with the multiple-stress creep recovery (MSCR) procedure, Mr. Franco questioned the need for AASHTO T 301. Also, he discussed the possibility of using the MSCR test on emulsion residue. Mr. Hazlett mentioned that research in his state suggests that phase angle may be the best indicator of the presence of polymer in liquid asphalt materials. Texas is currently in the process of implementing the findings from this research. John Bukowski from FHWA remarked that AASHTO TP 101, Estimating Fatigue Resistance of Asphalt Binders Using the Linear Amplitude Sweep, is available. FHWA also has a task force evaluating the MSCR test.
Again, Mr. Franco questioned if the MSCR procedure is the best option for testing emulsion residue. Chairman Horner requested that Texas provide a presentation at next year's TS 2a meeting concerning their phase angle research. Mr. Abadie commented that Louisiana is currently finalizing a study in this area as well. Mr. Gillispie asked the group about the level of use of the MSCR test. Several states indicated their interest in the procedure. Some agencies have implemented it, and many more are considering implementation.
After the TS 2a meeting, it was discovered that AASHTO T 301 is not due for reconfirmation next year.
- iii. PP 71, Certifying Suppliers of Emulsified Asphalt
 1. This provisional practice is due for extension next year.
- iv. PP 72, Recovering Residue from Emulsified Asphalt Using Low-Temperature Evaporative Techniques
 1. This provisional practice is due for extension next year.

E. SOM Ballot Items (including any ASTM changes)

- i. T 59 Testing Emulsified Asphalts – **CONCURRENT BALLOT ITEM # 1**
- ii. T 78 Distillation of Cutback Asphalt Products – **SOM BALLOT ITEM # 1**
- iii. T 302 Polymer Content of Polymer-Modified Emulsified Asphalt Residue and Asphalt Binders – **SOM BALLOT ITEM # 2**
- iv. TP 91 Determining Asphalt Binder Bond Strength by Means of the Binder Bond Strength (BBS) Test – **SOM BALLOT ITEM # 3**
 1. AASHTO T 78, T 302, and TP 91 were discussed earlier in the meeting while considering the ballot from June (Ballot 2a-14-01). Mr. Bailey offered a motion to place these standards on the fall ballot as SOM items. Lyndi Blackburn from Alabama seconded his motion, and TS 2a agreed without any opposition.
- v. M140 – **CONCURRENT BALLOT ITEM # 2**
- vi. M208 – **CONCURRENT BALLOT ITEM # 3**
- vii. M316 – **CONCURRENT BALLOT ITEM # 4**
- viii. T40 – **CONCURRENT BALLOT ITEM # 5**

VI. Open Discussion

- A. Mr. Franco reported that the ETF continues to develop standards. Specifically, the group is concentrating on design specifications, design practices, and construction guidelines for these materials. The ETF will continue to work with AASHTO to publish these documents. Mr. Franco mentioned a number of other product standards that will be forwarded to this technical section. Tack coats, microsurfacing, fog seals, scrub seals, cold mixes, and several other materials are included in this effort. Mr. Abadie suggested

developing a list of all the projects handled by the task force in order to avoid overlap with other committees, particularly the construction area. Brian Egan from Tennessee suggested that the ETF coordinate their efforts with the AASHTO Subcommittee on Maintenance.

- VII. Adjourn** – Mr. Abadie submitted a motion to adjourn the meeting. This motion was seconded by Mr. Hazlett, and TS 2a approved it unanimously at 9:20 a.m.

**2014 SOM ANNUAL MEETING
TS 2a**

Emulsified Asphalts

Thursday, July 31, 2014 (8:00am-10:00am)

Attendance Sheet

Name	Employer	Email Address	Phone Number	Member of TS?	Would you like to join this TS?
Horner, Ron	North Dakota Department of Transportation	rhorner@nd.gov	701 328 6984	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Myers, Allen	Kentucky Transportation Cabinet	allen.myers@ky.gov	502-564-3160	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rothblatt, Evan	American Association of State Highway and Transportation Officials	erothblatt@aaashto.org		<input type="checkbox"/>	<input type="checkbox"/>
Azari, Haleh	AASHTO Material Reference Laboratory	hazari@amrl.net		<input type="checkbox"/>	<input type="checkbox"/>
Holsinger, Ronald Edward	AASHTO Material Reference Laboratory	rholsinger@amrl.net		<input type="checkbox"/>	<input type="checkbox"/>
Mknake, Maria	AASHTO Material Reference Laboratory	mknake@amrl.net	214-436-4814	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lenker, Steven E.	AASHTO Material Reference Laboratory	slenker@amrl.net		<input type="checkbox"/>	<input type="checkbox"/>
Lutz, Robert	AASHTO Material Reference Laboratory	rlutz@amrl.net		<input type="checkbox"/>	<input type="checkbox"/>
Blackburn, Lyndi D	Alabama Department of Transportation	blackburnl@dot.state.al.us	334 206 2203	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Voth, Michael D	Federal Highway Administration	michael.voth@dot.gov	720-963-3505	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nash, Tanya M	Florida Department of Transportation	tanya.nash@dot.state.fl.us		<input type="checkbox"/>	<input type="checkbox"/>
Wu, Peter	Georgia Department of Transportation	pwu@dot.ga.gov	404-688-4840	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Santi, Mike	Idaho Transportation Department	mike.santi@itd.idaho.gov		<input type="checkbox"/>	<input type="checkbox"/>

Handwritten initials: MW, P.W.

**Subcommittee on Materials 2014
Renaissance Depot Hotel
Minneapolis, Minnesota**



**2014 SOM ANNUAL MEETING
TS 2a
Emulsified Asphalts**

Thursday, July 31, 2014 (8:00am-10:00am)

Name	Employer	Email Address	Phone Number	Member of TS?	Would you like to join this TS?
Abadie, Christopher <i>CDP David</i>	Louisiana Department of Transportation and Development	Chris.Abadie@la.gov		<input type="checkbox"/> <i>Harding and to Jason Dealy</i>	<input type="checkbox"/>
Williams, III, James A.	Mississippi Department of Transportation	jwilliams@mdot.state.ms.us		<input type="checkbox"/>	<input type="checkbox"/>
Sheehy, Eileen	New Jersey Department of Transportation	eileen.sheehy@dot.state.nj.us		<input type="checkbox"/>	<input type="checkbox"/>
Peoples, Christopher A.	North Carolina Department of Transportation	cpeoples@ncdot.gov	919 329-4000	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Seiter, Scott	Oklahoma Department of Transportation	sseiter@odot.org		<input type="checkbox"/>	<input type="checkbox"/>
Ramirez, Timothy <i>TZR</i>	Pennsylvania Department of Transportation	tramirez@pa.gov	717-783-6602	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Franco, Colin A.	Rhode Island Department of Transportation	cfranco@dot.ri.gov	401-222 3030 * 4110	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Feller, Joe J.	South Dakota Department of Transportation	joe.feller@state.sd.us		<input type="checkbox"/>	<input type="checkbox"/>
Trolinger, Bill	Tennessee Department of Transportation	bill.trolinger@tn.gov		<input type="checkbox"/>	<input type="checkbox"/>
Hazlett, Darren	Texas Department of Transportation	darren.hazlett@txdot.gov	512 416 2456	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bailey, William R. <i>W.R. Bailey</i>	Virginia Department of Transportation	bill.bailey@vdot.virginia.gov	804-328-3106	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lane, Becca	Ontario Ministry Of Transportation	Becca.Lane@ontario.ca		<input type="checkbox"/>	<input type="checkbox"/>
Salomon, Delmar R	Pavement Preservation Systems LLC	delmar@technopave.com		<input type="checkbox"/>	<input type="checkbox"/>
<i>Russell Rabbs</i>	<i>AASHTO</i>	<i>rdabbse@ashfto.org</i>	<i>202-624-7113</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Bob Lauzon</i>	<i>CONN DOT</i>	<i>Robert.Lauzon@CT.gov</i>		<input type="checkbox"/>	<input type="checkbox"/>

**Subcommittee on Materials 2014
Renaissance Depot Hotel
Minneapolis, Minnesota**



2014 SOM ANNUAL MEETING

TS 2a

Emulsified Asphalts

Thursday, July 31, 2014 (8:00am-10:00am)

Name	Employer	Email Address	Phone Number	Member of TS?	Would you like to join this TS?
Will Rogers	GAPA	wrogers@gapainc.com	770.378.5206	<input type="checkbox"/>	<input type="checkbox"/>
BOB HOBAN	ASPHALT INSTITUTE	bhoban@asphaltinstitute.org	804.539.3036	<input type="checkbox"/>	<input type="checkbox"/>
Mike Anderson	Asphalt Institute	manderson@asphaltinstitute.org	857-288-4984	<input type="checkbox"/>	<input type="checkbox"/>
John D'Angelo	D'Angelo Consulting	john.dangelo@dangeloconsultingllc.com	571.218.9733	<input type="checkbox"/>	<input type="checkbox"/>
Ron Holsinger	AASHTO	rholsinger@camr1.net	240-436-4830	<input type="checkbox"/>	<input type="checkbox"/>
BEV WARE	Mn DOT - MAINT OPERATIONS	bev.ware@SMTRE.MN.US	(651) 366-5522	<input type="checkbox"/>	<input type="checkbox"/>
Jack Springer	FHWA - LTPP	Jack.Springer@dot.gov	702 493-3144	<input type="checkbox"/>	<input type="checkbox"/>
Jim McGraw	Mn DOT	Jim.McGraw@state.mn.us	651 366-5548	<input type="checkbox"/>	<input type="checkbox"/>
DELMAR SALOMON	PPS LLC	delmar@technospace.com	208 672 1977 (Friend)	<input type="checkbox"/>	<input type="checkbox"/>
Gerald Poinke	MTE/MATRY Construction	gerald.poinke@mteservices.com	608-737-6304	<input type="checkbox"/>	<input type="checkbox"/>
JACK YOUTHERF	FHWA	STACK.YOUTHERF@DOT.GOV	202 4933090	<input type="checkbox"/>	<input type="checkbox"/>
Matt Jeffers	Ergon	mat.jeffers@ergon.com	615-504-1312	<input type="checkbox"/>	<input type="checkbox"/>
Hal Panabaker	DuPont	hal.j.panabaker@dupont.com	914-342-4662	<input type="checkbox"/>	<input type="checkbox"/>
Greg M. Iburn	Wyoming DOT	greg.m.iburn@wyo.gov	307-777-4070	<input type="checkbox"/>	<input type="checkbox"/>
Heather Dylla	National Asphalt Pavement Association	hdylla@asphaltpavement.org	301-731-4748	<input type="checkbox"/>	<input type="checkbox"/>
PHIL STORAENI	PHIL STORAENI CALTRANS	PHIL.STORAENI@DOT.CA.GOV	916 227 7854	<input type="checkbox"/>	<input type="checkbox"/>



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TS 2a

Emulsified Asphalts
Thursday, July 31, 2014 (8:00am-10:00am)

Name	Employer	Email Address	Phone Number	Member of TS?	Would you like to join this TS?
Mike Sullivan	MISS DOT	mullivan.emdot.ms.gov	601-359-1666	<input type="checkbox"/>	<input type="checkbox"/>
Bill Hargay	ARIZONA DOT	bhargay@aradot.gov	602-212-7779	<input type="checkbox"/>	<input type="checkbox"/>
JEFF SEIDERS	RKI	jseiders@rki.com	512-904-9177	<input type="checkbox"/>	<input type="checkbox"/>
OAK METCALFE	MONTANA DOT	OMETCALFE@MT.GOV	406-444-9201	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rick Kreider	KS DOT	rick@ksdot.org	785-296-1195	<input type="checkbox"/>	<input type="checkbox"/>
Aaron Gillispie	WV DOT	Aaron.C.Gillispie@wv.gov		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Brian Egan	Tennessee DOT	Brian.Egan@tn.gov	615-350-4101	<input type="checkbox"/>	<input type="checkbox"/>
Cole Mallis	Oregon DOT	cole.f.mallis@odot.state.or.us	503-984-3115	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Reynolds Toney	OK DOT	rtoney@okdot.org	405-521-2677	<input type="checkbox"/>	<input type="checkbox"/>
Brian Johnson	AASHTO	bjohnson@aashto.net	410-430-4800	<input type="checkbox"/>	<input type="checkbox"/>
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