



COMMITTEE ON MATERIALS & PAVEMENTS

2018 Annual Meeting – Cincinnati, OH

Monday August 6, 2018

10:15 AM – 12:15 PM EST

TECHNICAL SUBCOMMITTEE 2a

Emulsified Asphalts

- I. Call to Order and Opening Remarks**
- II. Roll Call**
- III. Approval of Technical Subcommittee Minutes**
 - A. Mid-year web conference on January 29, 2018 **Attachment 1**
- IV. Old Business**
 - A. COMP Ballot Items
 - 1. Standards sent to publication from 2017 ballot: M 140, M 208, M 316, T 382 (formerly TP 121), PP 093 (tack coat design), and MP 036 (tack coat materials)
 - B. Task Force Report – Review of T 59
- V. New Business**
 - A. Research Proposals
 - 1. Quick turnaround RPS
 - 2. Full NCHRP RPS
 - 3. Request from TRB AFK20, Committee on Characteristics of Asphalt Binders
 - a. From ETF: (1) role of rejuvenators in emulsified asphalt surface treatments, and (2) production of emulsions with fine particulates (dust)
 - B. AASHTO Technical Service Programs Items
 - C. NCHRP Issues
 - D. Correspondence, calls, meetings
 - 1. Emulsion Task Force meeting held June 20-21 in Indianapolis
 - a. Update on drafting performance graded specifications for emulsified asphalt, Mike Voth, FHWA
 - b. Potential changes to M 316 related to draft UTBWC provisional standard
 - 2. Questions regarding M 140 from South Carolina
 - E. Presentation by Industry/Academia
 - F. Proposed New Standards
 - G. Proposed New Task Forces
 - H. Standards Requiring Reconfirmation
 - 1. T 72 (Saybolt Viscosity), T 78 (Distillation of Cutback Asphalt Products), and T 302 (Polymer Content)
 - 2. Provisional Standards: Cold Recycled Mixtures, Slurry Seal, and Fog Seal (materials and design for each) are due for first 2-year reconfirm or revise



- I. COMP Ballot Items (including any ASTM changes/equivalencies/harmonization)
 - 1. T 50, ASTM D139-16 harmonization, removed English measurements

VI. Open Discussion

VII. Adjourn



COMMITTEE ON MATERIALS & PAVEMENTS
2018 Mid-Year Web Meeting Minutes
Monday, January 29, 2018
2:00 PM – 4:00 PM EST

Technical Subcommittee 2a – Emulsified Asphalt

I. Call to Order and Opening Remarks

II. Roll Call

Voting Members:

Brian	Pfeifer	IL	Chair	Voting
Scott	Andrus	UT	Vice Chair	Voting
Allen	Myers	KY	Member	Voting
Denis	Boisvert	NH	Member	Voting
Eric	Biehl	OH	Member	Voting
Jason	Davis	LA	Member	Voting
Michael	Doran	TN	Member	Voting
James	Williams, III	MS	Member	Voting
Joe	Feller	SD	Member	Voting
Michael	Santi	ID	Member	Voting
Peter	Wu	GA	Member	Voting
Scott	Seiter	OK	Member	Voting
Timothy	Ramirez	PA	Member	Voting
William	Bailey	VA	Member	Voting
Temple	Short	SC	Member	Voting
Lyndi	Blackburn	AL	Member	Voting
Christopher	Peoples	NC	Member	Voting
Becca	Lane	ON	Associate Member	Voting

III. Approval of Technical Subcommittee Minutes

Minutes of the August 10, 2017 TS 2a meeting in Phoenix, Arizona

The chair received two comments on the minutes prior to the meeting. The first was a correction to the standard number in the summary on the first page (M 316 in place of M 216). The second was to delete the word “wheel” in the title of TP 121 on page 3. A motion was made by PA with a second by VA to approve the minutes as amended. The motion passed unopposed.

IV. Old Business

A. Concurrent COMP Ballot Items

Item 1: Concurrent ballot to revise M 140, Standard Specification for Emulsified Asphalt

The revision to M 140 passed COMP ballot with 47 affirmative votes, 1 negative and 4 no votes. The TS ballot results were 15 affirmative votes, 1 negative and 3 no votes.

Item No.	Description			
1	Concurrent ballot to revise M 140, Standard Specification for Emulsified Asphalt			
State	Vote	Comment	Chair Review	Resolution
PA COMP/TS	Negative	1) In Section 5.1, the proposed revisions have deleted the reference to T 59 "properties of the emulsified asphalts given in Table 1 in accordance with T 59" which provided the link to the specified methods of test in Table 1 for the Storage Stability Test, Demulsibility, Sieve Test, Cement Mixing Test, and/or the Distillation tests (i.e., composition tests for water content and residue and oil distillate by distillation). The reference to T 59 should not be deleted in Section 5.1 so that there remains a link to the above mentioned tests listed in Table 1. Section 3.1, 1st sentence, does reference T 59, but only for the conditioning of emulsified asphalts using the text "refer to T 59 for the proper protocol for conditioning the emulsified asphalt prior to mixing and testing" (i.e., T 59, Section 4 only). As proposed, there is no reference to T 59 for the methods of test for the other T 59 tests mentioned above.		Will be addressed editorially to resolve the negative.
SC	Affirmative	Since Table 1 lists the procedures T 59 or TP 121, suggest clarifying the wording in Section 5.1 to read: "Determine the emulsified asphalt viscosity as given in Table 1 by either the Saybolt Furol method in accordance with Section 8 of T 59, or by the paddle rotational viscosity method in accordance with TP 121 as appropriate."		Comments will be reviewed and be addressed editorially.
AR	Affirmative	Agree with allowance for paddle viscosity as an alternative to Saybolt viscosity; however, verbiage in Section 5 referencing T 59 needs to remain. Suggested "As appropriate, determine the properties of the emulsified asphalt stated in Table 1 in accordance with T 59 with alternate method for rotational paddle viscosity per TP 121."		Comments will be reviewed and be addressed editorially.
NY	Affirmative	For some test methods, both AASHTO and ASTM specification allows the use of non-mercury thermometer (Replacing the Type 7F), but not all of them. I can't think of a reason to not allow non-mercury or digital thermometers. All test methods should be reviewed to permit appropriate alternate thermometers, where possible.		There was discussion about having an NCHRP 20-7 proposal for reviewing AASHTO standards and alternatives to mercury. Maria Knake (AASHTO) and Lyndi Blackburn (Alabama) will look into this.

OH TS	Affirmative	I wasn't able to attend the August meeting, but I don't understand why we're adding footnote "c" to viscosity or any of the emulsion tests. To me footnote "c" provides no value but if it is needed then footnote "c" should really be in section 3.1.X. You can explain to the buyer a reason why they "may" want to waive a test. I would probably add footnote "c" to demulsibility too.		Comments will be reviewed and be addressed editorially.
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Item 2: Concurrent ballot to revise M 208, Standard Specification for Cationic Emulsified Asphalt

The revision to M 208 passed COMP ballot with 47 affirmative votes, 1 negative and 4 no votes. The TS ballot results were 15 affirmative votes, 1 negative and 3 no votes.

Item No.	Description			
2	Concurrent ballot to revise M 208, Standard Specification for Cationic Emulsified Asphalt			
State	Vote	Comment	Chair Review	Resolution
PA COMP/TS	Negative	<p>1) In Section 5.1, the proposed revisions have deleted the reference to T 59 "properties of the emulsified asphalts given in Table 1 in accordance with T 59" which provided the link to the specified methods of test in Table 1 for the Storage Stability Test, Demulsibility, Particle Charge Test, Sieve Test, Cement Mixing Test, and/or the Distillation tests (i.e., composition tests for water content and residue and oil distillate by distillation). The reference to T 59 should not be deleted in Section 5.1 so that there remains a link to the above mentioned tests listed in Table 1. Section 3.1, 1st sentence, does reference T 59, but only for the conditioning of emulsified asphalts using the text "refer to T 59 for the proper protocol for conditioning the emulsified asphalt prior to mixing and testing" (i.e., T 59, Section 4 only). As proposed, there is no reference to T 59 for the methods of test for the other T 59 tests mentioned above.</p> <p>Editorial comment: 1) In Table 1, in 2 locations (1 each page showing Table 1 and Table 1 (Continued)), revise from "Oil distillation, by volume of emulsified asphalt, %" to "Oil distillate, by volume of emulsified asphalt, %" for consistency with text in T 59, Section 6.5.2 and consistency with M 140, Table 1 which includes same test requirement.</p>		Will be addressed editorially to resolve the negative.
SC		<p>Since Table 1 lists the procedures T 59 or TP 121, suggest clarifying the wording in Section 5.1 to read:</p> <p>"Determine the emulsified asphalt viscosity as given in Table 1 by either the Saybolt Furol method in accordance with Section 8 of T 59, or by the paddle rotational viscosity method in accordance with TP 121 as appropriate."</p>		Comments will be reviewed and be addressed editorially.
AR		<p>Agree with allowance for paddle viscosity as an alternative to Saybolt viscosity; however, verbiage in Section 5 referencing T 59 needs to remain. Suggested "As appropriate, determine the properties of the emulsified asphalt stated in Table 1 in accordance with T 59 with alternate method for rotational paddle viscosity per TP 121."</p>		Comments will be reviewed and be addressed editorially.

Item 3: Concurrent ballot to revise M 316, Standard Specification for Polymer-Modified Emulsified Asphalt

The revision to M 316 passed COMP ballot with 47 affirmative votes, 1 negative and 4 no votes. The TS ballot results were 15 affirmative votes, 1 negative and 3 no votes.

Item No.	Description			
3	Concurrent ballot to revise M 316, Standard Specification for Polymer-Modified Emulsified Asphalt			
State	Vote	Comment	Chair Review	Resolution
PA COMP/TS	Negative	1) In Section 5.1, the proposed revisions have deleted the reference to T 59 "properties of the emulsified asphalts given in Tables 1, 2 and 3 in accordance with T 59" which provided the link to the specified methods of test in Tables 1, 2 and 3 for the Storage Stability Test, Demulsibility, Particle Charge Test, Sieve Test, Cement Mixing Test, and/or the Distillation tests (i.e., composition tests for water content and residue and oil distillate by distillation). The reference to T 59 should not be deleted in Section 5.1 so that there remains a link to the above mentioned tests listed in Tables 1, 2, and/or 3. Section 3.1, 1st sentence, does reference T 59, but only for the conditioning of emulsified asphalts using the text "refer to T 59 for the proper protocol for conditioning the emulsified asphalt prior to mixing and testing" (i.e., T 59, Section 4 only). As proposed, there is no reference to T 59 for the methods of test for the other T 59 tests mentioned above.		Will be addressed editorially to resolve the negative.
AR	Affirmative	Agree with allowance for paddle viscosity as an alternative to Saybolt viscosity; however, verbiage in Section 5 referencing T 59 needs to remain. Suggested "As appropriate, determine the properties of the emulsified asphalt stated in Tables 1, 2 and 3 in accordance with T 59 with alternate method for rotational paddle viscosity per TP 121."		Comments will be reviewed and be addressed editorially.
OH TS	Affirmative	I wasn't able to attend the August meeting, but I don't understand why we're adding footnote "c" to viscosity or any of the emulsion tests. To me footnote "c" provides no value but if it is needed then footnote "c" should really be in section 3.1.X. You can explain to the buyer a reason why they "may" want to waive a test. I would probably add footnote "c" to demulsibility too. Please note that the Ash content test maximum of 1% will probably fail in all three tables due to the polymer. Example: For our microsurfacing emulsion, we ran an ash content (we still require solubility on the base asphalt only) and it got a 2.4ish%. Would fail Table 2. Table 1: HFRS-2P is under "Medium Setting."		Comments will be reviewed and be addressed editorially.

Item 4: Concurrent ballot to adopt TP 121, Standard Method of Test for Determining the Viscosity of Emulsified Asphalt by a Rotational Paddle Viscometer, as a full standard

The ballot to adopt TP 121 passed COMP ballot with 48 affirmative votes, 0 negatives and 4 no votes. The TS ballot results were 16 affirmative votes, 0 negatives and 3 no votes.

Item No.	Description			
4	Concurrent ballot to adopt TP 121, Standard Method of Test for Determining the Viscosity of Emulsified Asphalt by a Rotational Paddle Viscometer, as a full standard			
State	Vote	Comment	Chair Review	Resolution
PA	Affirmative	<p>Affirmative with editorial comments:</p> <ol style="list-style-type: none"> 1) In Section 6.1, suggest revising from "sample cup, the sample cup cover, a temperature" to "circular sample cup, sample cup cover, temperature". 2) In Figure 2, suggest revising the figure to show the top of the sample cup extending higher than the "Liquid Height". I'm not sure if there is a specific free area required between the liquid fill line and the top of the circular sample cup or not to ensure no overflow of sample. If so, consider adding this free area dimension or minimum dimension to Figure 2 and Figure 3. 3) In Figure 2, consider revising from "Liquid Height" to "Liquid Fill Line Height" for consistency with text used in Section 8.3. 4) In Section 8.2, last sentence, consider revising from "should be conditioned" to "shall be conditioned" and adding "in accordance with T 59, Section 4" to the end of sentence. 5) In Section 8.3, consider deleting this Section entirely and rely on Section 8.5 (modified, see comment for Section 8.5 below) for this procedure step. 6) In Section 8.4, consider revising from "should be conditioned" to "shall be conditioned" and adding "in accordance with T 59, Section 4" to the end of sentence. 7) In Section 8.5, consider revising to read "Pour the sample into a clean sample cup, strained through a 850-Åµm (No. 20) sieve, to the fill line of the viscometer sample cup". This suggested revision combines text from both existing Sections 8.3 and 8.5. 8) In Section 8.7, suggest revising completely to read "Submerge the paddle and temperature probe into the sample. Verify that the paddle is completely submerged in accordance with Figure 3. Verify the temperature probe is properly submerged for the type of temperature probe used." As currently written, the temperature probe would need "completely submerged" which is not likely to be correct. 9) In Section 8.10, consider revising from "record the viscosity reading" to "record the apparent viscosity reading" for clarity with the reporting requirements of Section 10 and revise from "as calculated in section 9" to "as calculated in Section 9.2 and record the corrected viscosity". 10) In Section 9.2, "where" definitions, consider adding a new first where definition that reads "F = correction factor for the test temperature to the nearest 0.1 (no units)" so that the correct number of decimal places are calculated and used for the correction factor. It is assumed that the correct number of decimal places for the correction factor is the same number of required decimal places for the certified viscosity and measured viscosity. 11) In Section 9.2, revise the last where statement from "= measured viscosity at 25Å°C (77Å°F)" to "= measured apparent viscosity of the standard at the test temperature". Annex A1 references separate certified standards for each test temperature and it is assumed these standards should be tested at those test temperatures in the apparatus to determine a correction 		<p>Editorial changes will be made.</p> <p>Delmar Solomon briefly discussed some of the other comments received.</p> <p>It is common practice to have a circular geometry.</p>

		<p>factor for each test temperature.</p> <p>12) In Section 10, consider reordering the subsections around to require reporting the test temperature in Section 10.1 [either 25°C (77°F) or 50°C (122°F)], reporting the apparent viscosity in Section 10.2, reporting the correction factor, F, in Section 10.3, and reporting the corrected viscosity in Section 10.4. This order more closely follows the Section 8 procedure order and specifically Section 8.10 for the order of apparent viscosity and corrected viscosity.</p> <p>13) In Section 10.1 and if comment 12) above is implemented, suggest revising completely to read "Report the test temperature, Å°C (Å°F)." This should be either 25°C (77°F) or 50°C (122°F) and, therefore, the text "to the nearest" should be required here.</p> <p>14) In Section 10.2 and if comment 12) above is implemented, suggest revising completely to read "Report the apparent viscosity to the nearest 0.1 mPa·s (optional)." Make this reporting requirement optional as M 140, M 208, and M 316 only require the test temperature and (corrected) viscosity.</p> <p>15) In Section 10.3 and if comment 12) above is implemented, suggest revising completely to read "Report the correction factor, F, to the nearest 0.1 (optional)". Make optional as M 140, M 208, and M 316 only require the test temperature and (corrected) viscosity.</p> <p>16) In Section 10 and if comment 12) above is implemented, add new Subsection 10.4 that reads "Report the viscosity (corrected viscosity) to the nearest 0.1 mPa·s". The term "viscosity" is used here with "corrected viscosity" in parenthesis for referencing this reported viscosity to the "Viscosity, Rotational Paddle" in M 140, M 208, and M 316 and to the "corrected viscosity" within this standard in Section 8.10.</p>		
AR		<p>Inclusion of the units in which the corrected viscosity is to be reported would be helpful in Section 10.1.</p> <p>Inclusion of how many digits should be reported; e.g nearest whole number, would be helpful in Section 10.1. and 10.2.</p> <p>Section 13 References is new to this reviewer. Is this the new protocol for indicating similar methods?</p>		Comments will be reviewed and be addressed editorially.
MN		<p>In Annex A the ballot includes removal of footnote 3 to eliminate specifically calling out one manufacturer of viscosity standards. The body of Annex A still refers to the product names of S60 and S600. These names can simply be eliminated since the footnote is being removed.</p>		Comments will be reviewed and be addressed editorially.
TX		<p>Consider 8.6 to word the following: Place the filled sample cup into the temperature control unit heater block, and lock the cup in place.</p> <p>8.9, Is 100rpm applicable to all manufacturers or should it just say based on manufacturers recommendations.</p>		Comments will be reviewed and be addressed editorially.
OH TS		<p>8.2 & 8.4: Is there any reason why T59 Section 4 isn't referenced in lieu of these descriptions?</p> <p>Should 8.3 really be 8.2.2 and 8.2 be 8.2.1? Same applies for the current 8.4 and 8.5.</p> <p>8.9: I'm running an emulsion at 25 deg C and my lab temperature is 25 deg C. Are you saying I should condition my sample to 20-22 deg C in a cold bath? This somewhat conflicts with 8.4.</p> <p>8.10: Should it be "Section" instead of "section?"</p> <p>To be consistent with T 59, Section 9 (Saybolt Furoil Viscosity), should Section 9 (Calibration and Standardization) be moved up to Section 7 (or 8)?</p> <p>Not familiar with these devices, but if I can digitally calibrate in Section 9.3, does the paddle viscometer</p>		Comments will be reviewed and be addressed editorially.

		automatically apply the correction factor in 8.10? 10.3: Shouldn't the viscosity be measured to the nearest whole number as M 140, 208, and 316 all refer to the requirements to the whole number? Also would be consistent with T59, Section 9.7.2.		
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Item 5: Concurrent ballot item to adopt as a Provisional Standard PP XX, Standard Practice for Asphalt Tack Coat Design

The concurrent ballot to adopt PP XX passed COMP ballot with 47 affirmative votes, 1 negative and 4 no votes. The TS ballot results were 15 affirmative votes, 1 negative and 3 no votes.

Item No.	Description			
5	Concurrent ballot item to adopt as a Provisional Standard PP XX, Standard Practice for Asphalt Tack Coat Design			
State	Vote	Comment	Review	Resolution
LA	Affirmative	Would prefer to see the term "trackless tack" in Note 1 listed as "non-tracking tack". "Trackless Tack" is a patented material.		editorial
GA	Negative	This standard allows emulsion to be diluted makes it more difficult for an agency inspector to do quality assurance work. An unscrupulous contractor or a crooked vendor/supplier may dilute emulsion from time to time to sell it as an undiluted emulsion. This standard allows emulsion to be diluted creates an avenue for a vendor/contractor to falsify, substandard, and counterfeit emulsion products in the field or even in an emulsion terminal right before shipping. This standard would crate an additional burden on an agency's materials audit work. Emulsion dilution should be banned in any quality specification. A negative can be withdrawn if the section that allows emulsion to be diluted is deleted from the proposed standard.		Negative withdrawn based on information that was provided
PA	Affirmative	Affirmative with comments: 1) In Section 1.2, 1st sentence, suggest revising from "followed by any applied surface layer" to "to an existing pavement surface just prior to application or placement of a pavement overlay course". 2) In Section 1.2, 2nd sentence, suggest revising from "between the existing asphalt or concrete pavement and an overlay, between the multiple lifts" to "between an existing asphalt or concrete pavement and a pavement overlay course, between multiple pavement lifts". Also in same sentence, suggest revising from "that the new layer" to "that a new pavement layer". 3) In Section 3.1, 1st sentence, suggest revising from "residual application quantities of the asphalt materials required for the construction of asphalt tack coats" to "residual asphalt application quantity of the asphalt material required for the construction of an asphalt tack coat". Suggested revisions modify sentence for singular tense. 4) In Section 3.1, 2nd sentence, suggest revising completely to read "Consult with the asphalt tack coat material supplier for their recommended application temperatures, material cure time to reduce material tracking, and unique handling requirements of their product type or grade." Suggested revision removes type or grade as these are typically specified or limited by the purchasing agency and replaces "tracking" with "material cure time to reduce material tracking" to further clarify the original "tracking" text. 5) In Section 3.4, 1st sentence, revise from "mixes" to "mixtures". 6) In Section 3.4, last sentence, revise completely to read "The material application rates will vary with the type and condition of the existing pavement course to which the tack coat material is applied." Use of plural		Comments will be reviewed and be addressed editorially.

		<p>"rates" is suggested due to potential for two different application rates for emulsified asphalt (emulsified asphalt rate and residual asphalt rate) and other suggested revisions are for clarification.</p> <p>7) In Section 4.1.1, end of 5th line and 6th line, revise from "dense-graded mixtures including Stone Matrix Asphalt (SMA)" to "dense-graded mixtures and gap-graded mixtures including Stone Matrix Asphalt (SMA)".</p> <p>8) In Section 4.1.1, end of 8th line, revise from "minimum residual rate" to "minimum residual asphalt rate".</p> <p>9) In Section 4.1.1, last line, revise from "residual application rate" to "residual asphalt rate".</p> <p>10) In Section 5.4, delete this entire subsection as the emulsified asphalt application rate is already covered in Section 5.1.</p> <p>11) In Section X1.1, add period at end of section.</p> <p>12) In Section X1.2, 2nd paragraph, revise completely to read "Assume a tack coat designed residual asphalt rate of 0.050 gal/yd²" as existing paragraph text is confusing.</p>		
AR	Affirmative	<p>Section 3.2 the statement "The residual asphalt from the emulsified asphalt and the application rate for a PG binder will be the same," is confusing as written. This may be true but there must be a clearly way to state this.</p> <p>Table 1 is unclear as it relates to PG asphalt binder material.</p> <p>In Section 5, the selected material should logically be stated first instead of following the application rate. Restructuring of the Section would be appropriate.</p> <p>Section 5.4. application rate for emulsified asphalt is redundant as it is already stated in Section 5.1.</p>		Comments will be reviewed and be addressed editorially. The comment regarding Section 5 suggests that Section 5.2 be moved to 5.1
OR		Note 1 should probably be written to match the wording used for Note 3 in MP XX for Asphalt Tack Coat.		

Item 6: Concurrent ballot item to adopt as a Provisional Standard MP XX, Standard Specification for Materials for Asphalt Tack Coat

The concurrent ballot to adopt MP XX passed COMP ballot with 47 affirmative votes, 1 negative and 4 no votes. The TS ballot results were 15 affirmative votes, 1 negative and 3 no votes.

Item No.	Description			
6	Concurrent ballot item to adopt as a Provisional Standard MP XX, Standard Specification for Materials for Asphalt Tack Coat			
State	Vote	Comment	Review	Resolution
LA	Affirmative	Would prefer to see the term "trackless tack" in Note 3 listed as "non-tracking tack". "Trackless Tack" is a patented material.		editorial
GA	Negative	This standard allows emulsion to be diluted makes it more difficult for an agency inspector to do quality assurance work. An unscrupulous contractor or a crooked vendor/supplier may dilute emulsion from time to time to sell it as an undiluted emulsion. This standard allows emulsion to be diluted creates an avenue for a vendor/contractor to falsify, substandard, and counterfeit emulsion products in the field or even in an emulsion terminal right before shipping. This standard would create an additional burden on an agency's materials audit work. Emulsion dilution should be banned in any quality specification. A negative can be withdrawn if the section that allows emulsion to be diluted is deleted from the proposed standard.		Negative withdrawn
PA	Affirmative	1) In Title of standard, consider revising from "Materials for Asphalt Tack Coat" to "Material for Asphalt Tack Coat". Suggested revision is to revise		Editorial

		<p>from plural to singular for Material.</p> <p>2) In Section 1.2, 1st sentence, suggest revising from "followed by any applied surface layer" to "to an existing pavement surface just prior to application or placement of a pavement overlay course".</p> <p>3) In Section 1.2, 2nd sentence, suggest revising from "between the existing asphalt or concrete pavement and an overlay, between the multiple lifts" to "between an existing asphalt or concrete pavement and a pavement overlay course, between multiple pavement lifts". Also in same sentence, suggest revising from "that the new layer" to "that a new pavement layer".</p> <p>4) In Section 3.2, Note 3, 2nd line, suggest revising from "allow tack coat emulsified asphalts" to "allow a tack coat emulsified asphalt" (i.e., singular tense).</p> <p>5) In Section 4.1, revise from "performance grade" to "performance-graded".</p>		
SC	Affirmative	Perhaps a table would be useful to provide some guidance to address: pavement condition, mix types, cracking, ambient and surface temps.		After some discussion it was agreed that a table is not necessary, South Carolina agreed.
AR	Affirmative	Removal of the "however" in the second sentence of Section 3.2. is suggested.		
OR	Affirmative	<p>Note 3 indicates "...and allow tack coat emulsified asphalts to be applied..." should probably be written as "...and allow tack coat materials to be applied..." unless the intention is that performance graded asphalts do not apply to this note.</p> <p>Should R5 be referenced in this standard, since it shows typical use of different tack coat materials based on M140, M208, and M316? (Could be added as a non-mandatory note)</p>		

B. Reconfirmation ballots

For the 2017 COMP reconfirmation ballot, the following standards were included:

1. T 50 – Affirmative 19, Negative 0

TN comment: Should the ASTM designation in this document be updated to reflect current ASTM standard updated 2016 instead of the 2012 version?

AASHTO staff present were not certain if the standard would have to go ballot to update to reflect the current version of the ASTM standard. We believe that a ballot would be required, but Maria Knake will check with the publications department to ensure this is the case.

2. MP 27 – Affirmative 19, Negative 0

Ontario comment: Section 5.1 says -"Emulsified asphalt for chip seals shall meet the requirements of rapid-setting type emulsified asphalt in M 140, M 208, or M 316" which will restrict the emulsions used to RS-2, CR-S2 and HFRS-2 and their polymer modified versions. In Ontario, other emulsions are also used such as HFMS-2 and HFMS-2P (medium set emulsions) and HF-150S and HF -150SP.

There is a construction guide specification that will eventually be published, and that will address high floats. There is currently no specification available. Ontario's specifications do address high floats, and it was indicated during the meeting that they can simply keep referring to these. New Mexico also has published a lot of information on high floats

used for chip seal. The voter was satisfied with the discussion and the standard as written.

3. MP 28 – Affirmative 19, Negative 0 – no comments
4. PP 82 – Affirmative 19, Negative 0 – no comments
5. PP 83 – Affirmative 19, Negative 0 – no comments

C. Task Force Reports

No active task forces

V. New Business

A. Research Proposals

1. 20-7 RPS

The 20-7 program is being disbanded. This is the last year for 20-7 proposals. There was discussion about having an NCHRP 10-7 proposal for reviewing AASHTO standards and alternatives to mercury. Maria Knake (AASHTO) and Lyndi Blackburn (Alabama) will look into this.

2. Full NCHRP RPS

No proposals to date

B. NCHRP Issues

C. Correspondence and calls

D. Presentation by Industry/Academia

Emulsion Task Force updates- Has provided a great deal of input into TS 2a standards. Colin Franco briefly gave an update on what the ETF has been working on.

- Established in 1991, subsection of Pavement Preservation ETG
- The mission is to advance and improve the practice of pavement preservation
- There was recognition that technology for Pavement Preservation needed to be updated.
- Preservation techniques are less expensive than full rehabilitation or rebuilding later in the pavement's life.
- Goals:
 - Come up with grading similar to SPG system for binder
 - Protocols for design, construction, performance, inspection, acceptance, education and training, certification
- Four standards were submitted in 2010 for adoption by AASHTO (PP 71, PP 72, TP 91, PG spec (tabled- hoping to have something soon)
- In 2011, six provisional standards were submitted to AASHTO. This is tabled for now, until the specs are created.

- There are several types of treatments that are in need of AASHTO standard, many of which being developed by ETF
- Co-Chairs of EFT are Colin Franco (RI) and Chris Lubbers (Kraton Polymers)
- Members are from industry, academia, DOTs, FHWA, and National Center for Pavement Preservation.
- There are several subcommittees within the ETF that are working on various issues and projects (Residue and Recovery Testing, Design, Supplier Certification and QA), Recycling, Research, Special Working Group)
- Research and field studies have been completed on an SPG specification for emulsions based on Superpave principles.
- The next steps for the ETF are to complete drafts of AASHTO standards, complete QA protocols for emulsion treatments starting with microsurfacing and chip seals, and then research.

E. Proposed New Standards

None

F. Proposed New Task Forces

TF-1

Overall review and streamline of AASHTO T59 based on comments received.

Task Force Members: Illinois (Chair), KY, UT, Ben Sade (AASHTO). Chair will email the whole group to see if there are any further volunteers.

VI. Open Discussion

There was discussion at the COMP winter meeting about harmonization with ASTM the way ASTM C01 and TS 3a have. The Executive Committee will discuss this further at their meeting in March.

VII. Adjourn

The meeting adjourned at 3:06 PM

Attachment 1

Attendees:

<i>Last</i>	<i>First</i>	<i>State/Representation</i>
Pfeifer	Brian	IL (Chair)
Andrus	Scott	UT (V. Chair)
Wilson	Craig	AZ
Doran	Mike	TN
Voth	Mike	FHWA
Bailey	William	VA
Holt	Anne	ON (MTO)
Trautman	Brett	MO
Short	Temple	SC
Metcalfe	Oak	MT
Boisvert	Dennis	NH
Tedford	Darin	NV
Babish	Andy	VA
DeVol	Joe	WA
Benson	Michael	AR
Burch	Paul	AZ
Cassady	Allen	FL
Marks	Pamela	ON (MTO)
Ramirez	Tim	PA
Biehl	Eric	OH
Seiter	Scott	OK
Salomon	Delmar	Friend (Pvt. Pres. Systems)
Flournoy	Monica	GA
Franco	Colin	RI
Blackburn	Lyndi	AL
Hunter	Brian	NC
Rilko	Wayne	FL