Mid-Year Web Meeting
Monday February 22, 2016
1:00 pm – 2:30 pm EST
TECHNICAL SECTION 2a
Emulsified Asphalt

1) Call to Order and Opening Remarks

2) Roll Call

Voting Members:

Name	State
Horner, Ron	North Dakota ✓
Myers, Allen H	Kentucky ✓
Blackburn, Lyndi D	Alabama ✓
Voth, Michael D	FHWA ✓
Nash, Tanya M	Florida ✓
Wu, Peter	Georgia
Santi, Mike	Idaho ✓
Abadie, Christopher David	Louisiana (Jason Davis) ✓
Williams, III, James A.	Mississippi
Boisvert, Denis M.	New Hampshire
Sheehy, Eileen	New Jersey ✓
Peoples, Christopher A.	North Carolina (Jack Cowsert) ✓
Seiter, Scott	Oklahoma ✓
Lane, Becca	Ontario
Mullis, Cole F.	Oregon
Ramirez, Timothy	Pennsylvania
Franco, Colin A	Rhode Island ✓
Short, Temple	South Carolina ✓
Feller, Joe J.	South Dakota
Hazlett, Darren	Texas ✓
Bailey, William R.	Virginia ✓

Friends:

Name	Affiliation
Salomon, Delmar	Pavement Preservation Systems
Horan, Robert	Asphalt Institute

3) Approval of Technical Section Minutes

Minutes were approved by Colin Franco, RI and seconded by Darren Hazlett, TX.

4) Old Business

a) SOM ballot 11/24/2015

Numerous editorial comments received. They will be incorporated as appropriate. No negative votes were received.

b) M 140, Emulsified Asphalt—Yes-46, No-0, No vote-6 (Item 23)

i) SOM Ballot, Item 23. Ballot to include numerous revisions approved by TS ballot.

Comments: : *Arkansas, Michael Benson:* The standard appears to indicate stability of the material for at least 14 days; however, Note 5 directs testing to PP71 which allows a maximum of 7 days for test evaluation. The PP71 timing could lead to questioning of the M 140 timing. The last sentence of Note 5 indicates that a sample should be "taken directly from heated storage tanks and evaluated soon after cooling directly to the required test temperature." This may not be practical depending on the distance between the source and the test laboratory.

Response: *Notes are not a binding part of the specification. They are added for guidance and information. The purpose of Note 5 is to encourage the use of supplier certifications when warranted.*

Discussion: This will remain as written. PP71 is a standard to certify suppliers and it is expected the testing would be completed in a shorter time frame.

Kansas, Richard Kreider: 3.1 Match languages in this section with the proposed language in M 316. Also, I'm not sure I understand Note 2. Is that in regard to field application or testing? Table 1 - It seem s a little confusing to show penetration to the nearest 0.1 mm when the spec limits are to the nearest 1 mm. –BH

Response: *Editorial corrections will be completed so the language in section 3.1 matches across M140, M 208, and M 316.*

Note 2 applies to field application. The work "field" could be added to the note as an editorial clarification.

Penetration is measured in 0.1 mm units (or dmm) per the requirements of AASHTO T 49. The specification ranges for penetration are listed in 0.1 mm units, not 1 mm units.

Discussion: It is odd, but penetration units are specified to 0.1 mm in T 49. It might be better to just call it "units" as in ASTM D5 instead of "to 0.1 mm" or "dmm." One unit = 0.1 mm in D5. This change will be made editorially.

New Hampshire, Denis Boisvert: There is great concern for confusion with emulsion grades that already exist in non AASHTO standards, i.e. RS1, RS2, etc. do correlate with the properties listed in the ASTM designations having the same name. Penetration and % residue values differ for some of the types. When specifying or purchasing, careful attention and reference to AASHTO RS-1 vs. ASTM RS-1 will be required. New grade designations are recommended

Response: *This has not been a significant concern voiced by industry. Industry pays close attention to contract specifications because the same grade designations very often have different requirements from state to state; and not only between ASTM and AASHTO.*

Discussion: After discussion and no other attendees voiced concerns, it was agreed to leave as it is written.

Ohio, Lisa Zigmund: We believe Emulsion can be tested up to 30 days as had been done in the past

Response: *A Tech Section 2a Task Force addressed this concern last year as referenced in the TS 2a meeting notes from this past summer. The consensus decision was to include a 14 day requirement to test emulsion properties but allow up to 30 days for testing of residue properties.*

Discussion: This (see Response) was the best compromise we could find. It's difficult to have one standard match all fifty states. 30 days is defined in the standard as from the sampling date, not from the time emulsion properties were tested.

Oregon, Cole Mullis: Section 3.1.1 Comment: discarding a sample without documenting a failed test result after completing the required reconditioning and mixing process to prepare emulsions for testing (please recall there is no reported value in Section 4 of T 59) could trigger disagreements if a sample met specification or not. The instructions to "discard and resample" seems to provide too much direction on sampling frequencies and may not be appropriate for a "M" standard specification.

Response: *A sample that is inhomogeneous is not a valid sample for testing. It could be an indication of improper transporting of the sample and/or improper storage of the sample; and not necessarily a problem with the emulsified asphalt that was placed. [I think the greater concern is with the direction to resample. So maybe we could complete an editorial change and say, "…discard the sample and resample if required by the agency."]*

Discussion: This was discussed and agreed to make the suggested wording change regarding discarding the sample to M 316 editorially if possibly or in the upcoming TS 2a ballot.

Note 3 Comment: This may be more appropriate in T 59 Section 4 "Sampling Conditioning for Testing".

Response: *This note could also be added to T 59 Section 4, if desired.*

Discussion: This will be added to T 59 in the upcoming TS 2a ballot.

Section 3.1.2 Comment: This section and Notes 4 and 5 maybe better suited for R 66 Section 6 "Protection and Preservation of Samples". Section 6 in R 66 already addresses the sample should be protected from freezing. If a sample is frozen, then allowed to defrost the technician performing the test may not know it was frozen, but will know and validate the sample does not meet the material specification of T 140 by completing the testing in T 59.

Response: *Agreed; these notes could also add value in R 66.*

Response: This will be added to R 66 in the upcoming TS 2a ballot.

Table 1 Comments: I do not support the footnotes "b" and "c" and "d". These statements dilute if not eliminate the ability to evaluate a material's required properties. If there are established minimum and maximum values to establish a product's material properties, dilution should not be allowed to cause them to become acceptable. A diluted SS-1 is with a residual of 38% is not a SS-1 with a residual of 57% anymore.

Response: *Footnote "c" is a currently existing footnote in M 140 (and associated ASTM standards). This update did not propose any change to footnote "c".*
Many agencies require standard emulsified asphalts such as SS-1 to be diluted when used in certain treatments (i.e. tack coats, and fog seals). So the purpose of the footnotes "b" and "d" are to indicate that certain properties will change due to the occurrence of dilution. Sampling prior or post dilution will impact how Table 1 is applied.

Discussion: This was discussed and it is not a change. No action needed.

Pennsylvania, Robert Horwhat: In Table 1, if changing "dmm" to "0.1 mm" why not just change to mm and record the upper and lower limits and the test results to the tenth of a millimeter (I.E. 40.0)?

Response: *AASHTO T 49 (ASTM D5) includes the required unit of measure for the penetration test. M 140 simply carries this unit of measure forward.*

Discussion: We previously addressed this issue. See notes above.

a) M 208, Cationic Emulsified Asphalt—Yes-45, No-0, No vote-7

i) SOM Ballot, Item 24. Ballot to include numerous revisions approved by TS ballot.

Comments: *Arkansas, Michael Benson:* The standard appears to indicate stability of the material for at least 14 days; however, Note 5 directs testing to PP71 which allows a maximum of 7 days for test evaluation. The PP71 timing could lead to questioning of the M 140 timing.

The last sentence of Note 5 indicates that a sample should be "taken directly from heated storage tanks and evaluated soon after cooling directly to the required test temperature." This may not be practical depending on the distance between the source and the test laboratory.

Response: *Notes are not a binding part of the specification. They are added for guidance and information. The purpose of Note 5 is to encourage the use of supplier certifications when warranted.*

Discussion: Same comments as received for M 140.

K*ansas, Richard Kreider:* 3.1 Match language in this section with the language in M 316. Also, I'm not sure I understand Note 2. Is that in regard to field application or testing? Table 1 - It seems a little confusing to show penetration to the nearest 0.1 mm when the spec limits are to the nearest 1 mm. –BH

Response: *Editorial corrections will be completed so the language in section 3.1 matches across M140, M 208, and M 316.*

Note 2 applies to field application. The work "field" could be added to the note as an editorial clarification.

Penetration is measured in 0.1 mm units (or dmm) per the requirements of AASHTO T 49. The specification ranges for penetration are listed in 0.1 mm units, not 1 mm units.

Discussion: Same comments as received for M 140.

New Hampshire, Denis Boisvert: There is great concern for confusion with emulsion grades that already exist in non AASHTO standards, i.e. RS1, RS2, etc. do correlate with the properties listed in the ASTM designations having the same name. Penetration and % residue values differ for some of the types. When specifying or purchasing, careful attention and reference to AASHTO RS-1 vs. ASTM RS-1 will be required. New grade designations are recommended.

Response: *This has not been a significant concern voiced by industry. Industry pays close attention to contract specifications because the same grade designations very often have different requirements from state to state; and not only between ASTM and AASHTO.*

Discussion: Same comments as received for M 140.

Pennsylvania:
Robert Horwhat: In Table 1, if changing "dmm" to "0.1 mm" why not just change to mm and record the upper and lower limits and the test results to the tenth of a millimeter (I.E. 40.0)?

Response: *AASHTO T 49 (ASTM D5) includes the required unit of measure for the penetration test. M 140 simply carries this unit of measure forward.*

Discussion: Same comments as received for M 140.

Timothy Ramirez: 1. In Section 3.1, why is the language in the 3rd and 4th sentence slightly different than similar language in proposed revisions to M 140? For consistency, make Section 3.1 here the exact same as M 140, Section 3.1.

Response: *The intention was for the language to be consistent in Section 3.1 for M 140, M 208, and M 316. Editorial corrections will be completed to make the language the same in this section.*

Discussion: Same comments as received for M 140.

In Table 1 (continued), add the units (0.1 mm or mm as suggested in comments to M 140 ballot item) to the penetration property.

Response: *The units in Table 1 are listed as 0.1 mm.*

Discussion: Same comments as received for M 140.

In Table 1 and for the proposed revision from dmm to 0.1 mm for penetration units, consider revising penetration units to just "mm" and then specify the Min and Max limits in mm (i.e., 90-0.1 mm becomes 9.0-mm) for each emulsified asphalt grade to coincide with this revised unit of measure to avoid any confusion. This may require a revision to T 49 for reporting results on the penetration test.

Response: *AASHTO T 49 (ASTM D5) includes the required unit of measure for the penetration test. M 140 simply carries this unit of measure forward. A proposed change to the unit of measure would first require a revision to T 49.*

Discussion: Same comments as received for M 140.

b) M 316, Polymer-Modified Emulsified Asphalt—Yes-46, No-0, No vote-6

i) SOM ballot, Item 25. Ballot to include revisions approved by TS ballot.

Comments: *Arkansas, Michael Benson:* Elimination of testing for force ratio and ductility at 4°C has removed any parameter that would give an indication of the performance of the material at colder temperatures. In testing at this facility, force ratio test has been used to monitor the "type" of polymer modification. As the specification is currently written or with the proposed changes, the standard continues appears to test parameters rather than performance criteria such as benefits with modification in improved adhesion to the existing surface, increased aggregate retention and flexibility.

Response: *Although the force ductility ratio and ductility are valid tests for their respective polymer systems, neither of these two options is a fair compromise if a single polymer-modified emulsion specification is to be open to both polymer types.*

Regarding the comment about the lack of performance related standards, it is agreed that there is limited performance criteria in the existing M 316 and proposed M 316. The major objectives of this update were to improve consistency of language and spec limits between M 140, M 208, and M 316; add additional grades to the tables; replace the solubility in trichloroethylene test; and make the specification grades neutral to the type of modifier being used. It is important to note that there is an AASHTO/FHWA/Industry task force that is working on developing a performance related specification for emulsified asphalts.

Discussion: Discussed the Response. No action needed.

While this reviewer is in agreement that formulation specifications are not always appropriate, removal of the required minimum polymer solids content for CRS-2P opens up the specification to allow for the possibility of modifications by unconventional means.

Response: *The minimum polymer solids content requirement has not been removed. Refer to Section 3.3.*

Discussion: Discussed the Response. No action needed

Initial publication of M316 in 1996 stated the parameters of the materials based on asphalt residue obtained by evaporation. It is an established fact that the asphalt residue properties are different when determined from distillation versus evaporation residue. Changes to this publication defining the residue properties by distillation rather than the previously published evaporation properties, while assumed that the majority of testing will be performed on asphalt evaporation residue due to the ease of testing, seems contradictory. Determination by distillation should be the alternate method rather than the primary.

Response: *Of the states that use polymer modified emulsions, 22 require residue by distillation, 12 require residue by evaporation, and 3 use both distillation and evaporation. The determination of the primary and secondary methods was based on this statistic.*

Discussion: Discussed the Response. The majority of states do use distillation. No action needed.

Was it intentional to state elastic recovery at 25°C on Table 1 materials while requiring testing at 10°C on Table 2 and 3? Similar to what was discussed earlier re: distillation vs. evaporation.

Response: *Yes. Originally all three tables required testing at 10°C. However, it was decided that it would be less "disruptive" to specify 25°C for the temperature on Table 1. About 13 states test at 25°C, 11 states test at 10°C, and 3 states test at 4°C, and 5 states test at multiple temperatures. For Tables 2 and 3, the test temperature of 10°C is more universally used.*

Discussion: Same comments as received for M 140.

It is been this reviewers experience that the terminology of "Typically" as used in the table headers tends to open up issues as typical is not always typical.

Response: *The heading is meant to list the most common purpose of the emulsion grades while not being exclusive.*

Discussion: Same comments as received for M 140.

Pennsylvania, Robert Horwhat: In Table 1, if changing "dmm" to "0.1 mm" why not just change to mm and record the upper and lower limits and the test results to the tenth of a millimeter (I.E. 40.0)? Previously discussed.

Response: *AASHTO T 49 (ASTM D5) includes the required unit of measure for the penetration test. M 140 simply carries this unit of measure forward.*

Discussion: Previously discussed.

Timothy Ramirez: In Section 3.1, this text should be same as text in M 140 and M 208. See comments for M 140 and M 208 above to make this language consistent in all three standards.

Response: *The intention was for the language to be consistent in Section 3.1 for M 140, M 208, and M 316. Editorial corrections will be completed to make the language the same in this section.*

Discussion: Previously discussed.

In Table 1, Table 2 and Table 3, consider revising residue property for penetration from units of "0.1 mm" to "mm" and then appropriately revising each Min and Max specification limit to its corresponding limit in mm (i.e., from "40-0.1 mm" to "4.0 mm". This may also require a revision to T 49 for reporting penetration results.

Response: *AASHTO T 49 (ASTM D5) includes the required unit of measure for the penetration test. M 140 simply carries this unit of measure forward. A proposed change to the unit of measure would first require a revision to T 49.*

Discussion: Previously discussed.

c) TP 91, Determining Asphalt Binder Bond Strength by Means of the Binder Bond Strength (BBS) Test—Yes-47, No-0, No vote-5

i) SOM ballot, Item 26. Ballot to include revisions approved by TS ballot.

Comments: *Oregon, Cole Mullis:* Figure 1 ASTM D4541 Figure A3.1 shows a gasket in schematic not present in this procedure, is that an omission?

Section 6.1.1. Should there be tolerances for the dimensions of mold? What is approximately +/- 1mm or 5mm or ?

Section 6.1.2. Should there be tolerances for the dimensions of the mold? What is approximately +/- 1mm or 5mm or? Figure 2 The square figure (b) has no units for dimensions.

Section 6.3 (and others) Why reference ASTM D4541? It seems all requirements are listed for standalone AASHTO. What happens if ASTM D 4541 changes? Section 6.9 Should emulsion residue be added to container type for hot-applied asphalt binder?

Section 6.12 Is there an AASHTO reference to use instead of ASTM D4753?
Note 6: I believe the proper reference is 7(a) not 6(a). Placing the requirement that the stubs be normal to the substrate surface should not be in a "Note" as it is non-mandatory explanatory material Note should probably be moved to mandatory information.

10.1.8 I believe the proper reference is 7(b) not 6(b). Section 9.3 has been re-numbered to 9.2 This change will be made.

10.2.9 I believe Note 5 is now Note 6. 10.2.10 Should the last sentence "It is recommended to conduct the curing and testing at the same temperature", be placed in a Note as it does not seem to be a requirement the curing and testing temperature be the same? If it is a requirement the temperatures are the same, I would drop "recommended". We may remove Note 6 and make it mandatory. Revised wording will be used to clarify.

Discussion: Numerous changes will be made and balloted on the upcoming TS 2a ballot.

d) TP 91, Determining Asphalt Binder Bond Strength by Means of the Binder Bond Strength (BBS) Test—Yes-47, No-0, No vote-5

i) Concurrent ballot, Item 27. Ballot to adopt as a full standard as decided at the TS meeting.

Comments: *Pennsylvania, Timothy Ramirez:* Has there been sufficient use and vetting of this provisional standard by various agencies to adopt as a full standard? Not aware of this test being widely used or reported use. There should be some minimum level of use for a standard to be adopted as a full standard. Discussed Andrew's response. Would like to continue moving towards a full standard.

Response:

e) T 59, Emulsified Asphalt—Yes-47, No-0, No vote-5

i) Concurrent ballot, Item 28. Ballot to address negative vote and suggested TS ballot changes.

Comments: *Florida, Timothy Ruekle:* Although this change does clear up the method of what is supposed to be used along with the precision statement, making two beakers allowable upon the discretion of the specifier with a referee using four seems like the method infers that using two beakers is not sufficient. The statement will cover the needs to address the current issue, but if using less than four is common practice, perhaps a precision statement should be developed for a two and/or three beaker procedure. We don't have a P&B statement for the two beaker procedure. Should there be? If AMRL has data for each beaker, could we simulate a P&B statement on fewer beakers? We could look into that.
Response:

Montana, Matt Strizich: We find it necessary to use at least three beakers to obtain the quantity residue necessary to perform the penetration tests. The proposed language requires 4 beakers but allows the specifier to allow 2 and this language should be modified to allow 2 or 3. Montana indicated they didn't consider P&B part of it when the comment was made.

Response:

Pennsylvania, Timothy Ramirez: In Section 10.4.1, revise by adding "(Note 18)" to end of sentence for awareness of the P&B issue if obtaining residue by evaporation method. We will take a look at the comment.
Response:

f) R 66, Sampling Asphalt Materials—Yes-47, No-0, No vote-5

i) Concurrent ballot, Item 29. Revised to include comments from 2014 SOM ballot including changing minimum sample size for emulsions to 1 L.

Comments: *Kansas, Richard Kreider:* A one quart sample of emulsified asphalt would not be enough for our lab to perform all of the required tests. –KS

Discussion: One gallon was changed to one quart. Several other states indicated that one gallon is normally requested. Others get two one-quart samples. Minimum of 2L or ½ gallon was recommended. (this has been voted on and in the 2015 TS ballot 1 quart was decided).

g) MP XX, Materials for Emulsified Asphalt Chip Seals—Yes-47, No-0, No vote-5

i) SOM ballot, Item 30. New proposed provisional standard

Comments: *Kansas, Richard Kreider: 5.2 Why is field dilution not acceptable? --BH. No mention of double layer chip seals. –CL* The Response below was discussed.

Response. Filed dilution is not recommended because it is easier to control the dilution rate and the quality of the water at the refinery.

This spec if for single chip seals only

Pennsylvania, Timothy Ramirez: 1. Table 2 includes requirement for Flakiness Index Value with specific values, but does not allow any options for agency specific values for flakiness index. Although cubical aggregates are very desirable, agencies may have limited aggregate sources able to meet these specific flakiness index values. Language should be included in this specification to allow agency specific flakiness index values as alternates to the specified flakiness index values in this proposed provisional standard. These values do not seem all that bad, but a majority of states may not have a good handle on flakiness index for all their aggregate sources. We do not, but are starting to gather this data. Unfortunately, everyone's conditions can't be put into one spec.

Flakiness Indices shown in Table 2 are based on the most recent experience for the three traffic levels shown. Agencies should be encouraged to evaluate other options, but would do so at their own risk.

2. In Table 2, Class III (greater than 5000 AADT) may not be a traffic level at which a number of agencies allow use of chip seals. Are there a number of agencies specifying chip seals at this level of AADT? Discussed the Response below.

Response. Yes, many agencies use chip seals on high volume roads, with traffic volumes exceeding 5,000 AADT

3. In Section 5, revise section title from "Emulsified Asphalt Chip Seal Design Requirements" to "Emulsified Asphalt Requirements" as the items being specified are only for asphalt material requirements and not necessarily "design" application rates of emulsified asphalts. This is an appropriate change.

4 In Table 2, footnote "a", the AADT value of 500 is omitted from the specified ranges of "less than 500" and "501-5000". Consider revising from "less than 500" to "less than or equal to 500".

Response. This suggested change is appropriate

6. Is the term "chip seals" used by most agencies? We do not use that terminology in our specifications. Instead we refer to these as "surface treatments" and I thought some other publications refer to these as surface treatments. Discussed the Response below.

Response. Chip Seals, Surface treatments and Seal coats are used to describe this treatment. This change should be added to the spec.

Tennessee, Brian Egan: Should a section or note be included that mentions the consideration of polish resistant aggregate for roadways with higher traffic volumes At this point, we don't want to get into polishing as there are no studies available.

Response: This is an excellent point, and something we need to address. LAA does not measure polish. Indiana/Illinois/Kentucky probably have the best experience with soft limestones used in chip seals and what an appropriate test would be to measure this.

TS2a Chair response: this issue will need to be studied and reviewed at a later date .

h) PP XX, Standard Practice for Emulsified Asphalt Chip Seal Design—Yes-46, No-0, No vote-6

i) SOM ballot, Item 31. New proposed provisional standard

Comments: *Oregon, Frank Stellmach:* Section 5.1.2, should define (5.61) and (62.4) in the equation givens.

A = emulsified asphalt quantity, gal/yd^2;
5.61 = a constant for converting the units to gal/yd2
e = percent embedment from Figure 1 expressed as a decimal;
d = 1.33 Q/W;
Q = quantity of chips from the board test, lb/yd^2;
W = dry loose unit weight of chips, pcf (see T 19M/T 19, Section 12 on shoveling);
62.4 = the unit weight of water, pcf
G = dry bulk specific gravity of chips (see T 84 and T 85);
T = traffic correction factor from Table 1;
V = pavement surface correction factor; and
R = emulsion residue, expressed as a decimal, e. g., 0.65 = 65%

Pennsylvania, Timothy Ramirez: 1. In Table 1, the AADT values of 250 and 500 are used in more than one AADT range. Consider revising the last two ranges to read: "251-500" and "501-1000".

Response. This has been addressed

2. In Table 1 and In regards to the AADT levels, this standard does not coincide with the proposed Materials for Emulsified Asphalt Chip Seals where the Table 2 footnote a gives AADT ranges of "less than 500", "501-5000", and "greater than 5000". These AADT ranges should better coincide for a comprehensive system of materials and design standards. Especially since this standard does not even address the Class III materials in the proposed standard for Materials for Emulsified Asphalt Chip Seals". Discussed the information below.

Mxx has three traffic levels, I (<500), II (501-5000) and III (>5000). Rxx subdivides the Mxx traffic level I into three parts, the II level into two parts and indicates that the III level requires more information before recommendations can be made. So, Rxx is a finer tuning of Mxx.

TS 2a Response: This will be reviewed by the ETG and recommendations made at the web meeting or soon after for further review.

3. Is the term "chip seals" used by most agencies? We do not use that terminology in our specifications. Instead we refer to these as "surface treatments" and I thought some other publications refer to these as surface treatments. We will make this change.

Response. This has been addressed

4. In equation (1) and in the "Where" statements, is "d" the average mat depth from Figure 1? If so, revise the "where" statement for "d" to state that it is the average mat depth

Response. Already addressed above

i) MP XX, Materials for Micro Surfacing—Yes-46, No-0, No vote-6

i) SOM ballot, Item 32. New proposed provisional standard Colin's group took a look at these comments.

Comments: *Oregon, Greg Stellmach:* Section 6.3 needs to be reworded for better clarification. My understanding of the sentence is the gradation needs to be crushed and shouldn't vary more than the tolerances in table2 and stay within the limits of the specification limits. Maybe word as follows: "The gradation of the aggregate stockpile shall not vary by more than the stockpile tolerances, as indicated in Table 2 and remain within the gradation limits according to the Type of aggregate". Not sure the "from the mix design gradation" is required, because at this stage the material is just being crushed and a mix design hasn't been established We can eliminate the "from the mix design gradation" wording from the standard.

Response.

Pennsylvania, Timothy Ramirez: In Table 1, is there an equivalent sodium sulfate soundness as some states may use sodium sulfate soundness, not magnesium sulfate soundness?

Response.

Discussion: 15% sodium sulfate soundness will be added to the table. This would be a maximum allowable amount. This will have to be balloted.

Tennessee, Brian Egan: Should a section or note be included that mentions the consideration of polish resistant aggregate for roadways with higher traffic volumes?

Discussion: We don't want to get into this at this time, although it is probably a good point. This was discussed earlier.

j) MP XX, Standard Practice for Micro Surfacing Design—Yes-47, No-0, No vote-5

i) SOM ballot, Item 33. Proposed new provisional standard

Comments: *Kansas, Richard Kreider:* 6.1, percent of what; total mix, total binder?

Response.

Discussion: Total mix. This will be clarified.

k) PP 71, Certifying Suppliers of Emulsified Asphalt—Yes-47, No-0, No vote-5

i) Concurrent Ballot, Item 34. Balloted to move to full standard

Comments: *Pennsylvania, Timothy Ramirez:* 1. In Section 11.3, highly recommend adding that the bill of lading include two more items (8) batch/lot number, (9) tank number.

Discussion: This will be added.

l) PP 72, Recovering Residue from Emulsified Asphalt Using Low-Temperature Evaporative Techniques—Yes-47, No-0, No vote-5

i) Concurrent ballot, item 35. Balloted to move to full standard

Comments: *Kansas, Richard Kreider:* 5.5 Note 8 - In M140 binder can sit for a 14 days before testing, here only 1 week? --CL

Discussion: The comment regarding 14 days vs 1 week will be reviewed.

Washington State, Kurt Williams: Not clear on the benefits of this test procedure. WSDOT will not utilize this procedure due to having to reheat the sample to utilize it in testing.

Response:

Discussion:

m) TP XX, Determining the Viscosity of Emulsified Asphalt by a Digital Paddle Viscometer—Yes-47, No-0, No vote-5

i) Concurrent ballot, Item 36. Proposed new provisional standard with TS ballot changes included.

Comments: *Arkansas, Michael Benson:* Note that the terminology Digital Paddle Viscometer or DPV appears to be specific for a supplier. Consideration should be made to a more generic terminology.

Response: This has been addressed and revisions made.

Discussion: Arkansas has already been contacted about this.

Kentucky, Allen Myers: Section 11.1.2, should "Repeatability" be more appropriately termed "Reproducibility" when considering multiple laboratories?
In the second sentence of Footnote 2 below Annex A1, what is meant by the phrase "included respectively 14 labs and 15 labs"? This sentence is confusing.

Response: This has been addressed and revisions made. This has been changed.

n) T 300, Force Ductility test on Asphalt Materials—Yes-47, No-0, No vote-5 (Item 37-SOM)

i) SOM ballot, Item 37. Reconfirmation of full standard

o) T 79, Flash Point with Tag Open-Cup Apparatus for Use with Material Having a Flash Point Less Than 93ºC (200ºF) - Yes-47, No-0, No vote-5

i) Concurrent ballot, Item 38. Reconfirmation of full standard

p) Task Force Reports 2a-2015-02

i) AASHTO R 5, Selection and Use of Emulsified Asphalts. A task force comprised of Messrs. Voth (FHWA), Peoples (NC), Horner (ND) and Georgene Geary, AASHTO consultant was created. The task force completed their assignment to include the newer types of emulsions into the standard. Recommended changes will be balloted on the upcoming TS 2a ballot.

2) New Business

a) Research Proposals No proposals have been submitted. Colin and Darren should have something for Sept. 15th.
b) AASHTO Issues
c) NCHRP Issues Construction guide spec for micro-surfacing and chip seal should be published soon.
d) Correspondence, calls, meetings/ Presentation by Industry
e) Proposed New Standards and Updates – Colin Franco, Rhode Island
   i) Standard Specification for Materials for Slurry Seal
   ii) Standard Practice for Slurry Seal Design
   iii) Standard Specification for Emulsified Asphalt Fog Seal
   iv) Standard Practice for Fog Seal Design
   v) Standard Specification for Cold Recycled Mixture with Emulsified Asphalt
   vi) Standard Practice for Determination of Optimum Emulsified Asphalt Content of Cold Recycled Mixtures
   vii) Standard Practice for Asphalt Tack Coat Design
   viii) Standard Specification for Materials for Tack Coat
f) Proposed New Task Forces

g) Standards Requiring Reconfirmation in 2016
   i) M 81, Cut-Back Asphalt (Rapid Cure Type)
   ii) M 82, Cut-Back Asphalt (Medium Curing Type)
h) TS Ballot Items (including any ASTM changes)
   i) R 5 Selection and Use of Emulsified Asphalts

3) Open Discussion

Approval of the previous tech section meeting minutes: RI – motion, TX-second

4) Adjourn Meeting adjourned at 2:57 p.m.