

PCCAS
Emulsion Committee Agenda
March 24, 2015
Harry Reid Engineering Laboratory, Room 109, UNR Reno, NV

Meeting Minutes – from Joe and Sallie

Tuesday, March 24th

12:30 PM – 2:30 PM

- 1) Introductions

- 2) FHWA ETF Update – Chris Lubbers (Kraton)

Chris reported on the activities of the emulsion expert task force. A lack of funding slowed the efforts of the ETF after 2013; however, there is renewed efforts and support for the ETF. Chris and fellow co-chair Colin Franco are working on issues such as the oven evaporation method to obtain residue from emulsified asphalts and standardization of specifications for emulsions. For obtaining residue, more gentle, realistic evaporation protocols are being looked at (e.g., 6 hrs. @ 60°C in TFO oven.) They have also looked at obtaining residue by spreading the emulsion out on a mat at room temperature as well as vacuum recovery (G. Reinke, ASTM).

It will also be necessary to relate PG grading to actual performance of the emulsion in their field applications. Various methods for doing this are being looked at on a nationwide basis. Nationally, there are 45 different emulsion specifications used by state DOT's. FHWA is working towards more standardization.

There are now three AASHTO specifications, M 316, M 208 and M 140 for polymer modified, cationic and anionic emulsified asphalt (respectively). Of interest was that the effort to update these specifications to include three penetration ranges based on region/climate.

- 3) Emulsion Correlation Testing – Sallie Houston

Sallie presented on correlation testing among PCCAS members. General consensus was that it could be very useful. Main potential issues are managing data and samples. A task group consisting of Sallie Houston, Joe DeVol and Keven Heitschmidt will begin designing the program. The Oregon DOT Cooperative will be used as a starting point and potential template.

- 4) Investigation of Emulsified Asphalts Properties by DSR to Evaluate their Performance – Amir Golalipour

Amir presented on testing liquid asphalt emulsion using cup and bob with interesting results, potentially related to field properties such as workability, breaking and setting characteristics. Amir also reported on the potential use of DSR plate on plate geometry to measure the bond strength (adhesion) of tack coat starting with un-broken/non-cured emulsified asphalt. (research report available)

- 5) Measuring Surface Tackiness of Emulsions using the DSR – Shauna Tecler

Shauna presented a CTAA paper by Akzo Nobel and Blackledge testing tackiness of emulsion residue using the DSR plate on plate geometry. (paper available) Such a test might be used to predict emulsion break time and likelihood of tire tracking.

- 6) Matt Corrigan – FHWA

Matt provided an update on an NCHRP study to measure tack coat bond and shear strength using laboratory prepared specimens and roadway cores. The PCCAS Emulsion Committee will monitor and report findings on this study.

- 7) Review Committee Charges and Activities

- 8) Activity Planning

- 9) Next Meeting – October 13, 2015 @ UNR

- 10) Adjourn Approximately 2:30 PM