

PCCAS
Paving Asphalt Committee Minutes
April 26, 2017 – Reno, NV

- 1) The meeting was called to order at approximately 8:30. Introductions were provided by the attendees.

- 2) DSR Equipment and MSCR Calculations – From the last meeting, there were questions raised regarding how DSRs are functioning in determining the values for the MSCR test method. To increase the understanding and awareness of the equipment function, two equipment suppliers provided information and demonstration on the general operation of the DSR and also some specifics on manufacturer software and data collection.
 - a. John Casola from Malvern provided a presentation and discussion of the MSCR test and the equipment function. In addition, this presentation covered various issues and item being discussed including information being presented at the Binder ETG. The presentation completed with a review of the Malvern MSCR testing sequence. See the presentation for additional information.

 - b. Scott Sension from Anton Paar provided a presentation / live demonstration of the MSCR test and equipment function. No formal presentation was provided but rather this was a live demonstration of the testing sequence and data collection for the Anton Paar DSR equipment.

- 3) Zia Alavi from UC-Davis provided an update on the research being done for CalTrans on the development of rubber binder specifications. The highlights from the presentation are:
 - a. The research is specific to the Caltrans specification. The binders used by Caltrans have 18 to 22% rubber, #8 sized rubber is allowed, and 2 to 6% extender oil is used.
 - b. The cup and bob geometry is being used for the high temperature grading. The testing is performed using a 17mm spindle.
 - c. For this cup and bob geometry, time is needed to allow this volume of material to reach temperature equilibrium. Currently, this takes about 20 to 25 minutes for this to occur.
 - d. UC Davis is working with AASHTO to develop a standard method.
 - e. RTFO testing amount is based on percentage of base binder that is need to provide 35 grams. The material is aged at 190°C.
 - f. A 10-mm spindle is used to test RTFO and PAV aged binders.
 - g. BBR testing is the same with the exception of the procedure for filling the molds. The proposal is to fill the width of the mold and not the thickness to allow for larger particles and ease of pouring.

See the presentation for additional information.

- 4) Asphalt Rubber Task Group – Sallie Houston
 - a. Data analysis has been completed for the round robin testing of the asphalt rubber binders. Formulation of precision and bias statements has been completed and this information was presented. Next steps will be to have the report formally published.

See the presentation for additional information.

- 5) Asphalt Rubber Specifications in the PCCAS – Bob Humer provided a report on specifications received and compiled for asphalt rubber products. These will be posted on the website.
- 6) DSR Equipment / Data Collection – Bob Humer provided a presentation on the DSR equipment being used in the PCCAS. In addition, a report was compiled from the survey that was taken regarding DSR equipment.

See the presentation and posted final report for additional information.

- 7) CIR Research Project from UNR – Peter Sabaaly provided an update on the research being done at UNR on cold in-place recycled mixtures.
 - a. Mix design is being performed using gyratory compaction and perforated molds
 - b. Curing at 140°F as part of mix design methodology
 - c. Air void contents are 13 to 15% for criteria. Method ASTM D1188 (parafilm) is being used to measure the air void contents.
 - d. T 283 is also being used for evaluation. A minimum of 50 psi and 70% retained are currently being considered for specification.
 - e. The mix design process is continuing to be refined.

The research continues and a final mix design process and methodology will be completed soon.

- 8) Performance Related Specification and AMPT Testing – Dave Mensching from FHWA provided a presentation on performance related specifications and testing performance parameters using the AMPT. This methodology uses prediction models to compare as-designed mixtures to as-constructed pavements. This type of specification would move from an end-result QA type specification toward a performance type specification. Payment would be based on predicted performance life of the completed pavement.

See presentation for additional information.

- 9) Emulsion Committee update was provided on the previous day activities. See Emulsion Committee minutes for information.

10) Recycling Committee update was provided on the previous day activities. See Recycling Committee minutes for information.

11) Next meeting dates – The next meeting dates for the Paving Asphalt Committee are November 15, 2017 and April 25, 2018.

The meeting adjourned at 4:15 pm.

Respectfully submitted – Shauna Teclemariam and Brad Neitzke