

**PCCAS Paving Asphalt Committee Meeting**  
**University of Nevada, Reno**  
**March 25, 2015**  
**Minutes**

1. The meeting was called to order at approximately 8:45 am by Shauna TecleMariam. Shauna welcomed the attendees and called their attention to the provided agenda, which served as the plan and guide for the meeting. An attendance sign-in sheet was distributed and self-introductions were made.
2. A report was made by the Round Robin Task Group.
  - a. Sallie Houston provided information on round robin testing of various asphalt rubber products that is currently underway. 3 field blended samples have been sent out. Grades have been provided and 17 laboratories are participating in the round robin. These materials meet the specification for Caltrans produced asphalt rubber materials. Open discussion regarding the difficulties in testing.

There was extensive discussion regarding keeping the material in the RTFO bottles during the aging test. Several laboratories reported losing material from the bottles during this test.

Recommendation for the round robin: Tilt the RTFO oven and still maintain within the 1.0 degree tolerance of level according to the method for performing the aging procedure on all remaining samples if there is an issue with material leaving the bottles. Sallie Houston will contact all of the participating laboratories to provide this change.

UCDavis is also doing some research in regard to the testing of asphalt rubber products. They reported doing RTFO testing at 190 C and loading at 35 grams of base binder (the amount of rubber added would be needed to determine the total loading). They are finding that the binder does not come out of the bottles when doing this method.

- b. The MSCR Task Force – Bob Humer provided an update of the data was collected since the last committee meeting. A report has been produced and is part of the minutes. With this report, the task group completed the charged task. See the electronic versions of the data collection report and summary report with coefficients of variation for details.

Based on the information provided, the Paving Asphalt Committee provided the task group with an additional charge:

For binders provided for the 2015 construction, provide MSCR data for the grade specified and 6 degrees lower, with the option of testing 12 degrees lower if possible. The task group will provide a spreadsheet for the collection of the data. This is voluntary for those that want to provide the data.

3. CalTrans Cup and Bob Geometry Research - UC Davis provided a presentation on the Cup and Bob method (concentric cylinder) for testing binder. The presentation was provided by Zia Alavi from UC Davis. Comparison was provided between parallel plate and concentric cylinder geometry for neat, modified and rubber binders. Testing was to determine the fixed conversion factor to equate PP and CC geometry. Fixed conversion factor was then used on the testing of 3 different binders for original, RTFO, and TFO testing. Comparisons were provided between rheological measurements from the PP and CC geometry. See presentation for details.
4. The WMA and RAP Research at UNR - Peter Sebaaly provided a presentation on research that is occurring with UNR. The research is being done in cooperation with South Dakota DOT and Nevada DOT as part of two separate evaluations

#### South Dakota Evaluation

An evaluation was conducted of various WMA technologies in South Dakota. 3 technologies were evaluated – Advera, Evotherm and plant foaming with 3 different aggregate sources and 1 polymer modified binder (PG 64-28). The research provided laboratory properties of the various mixtures as well as field produced mixtures that were obtained during construction. Evaluation also included performance measurements after 1 to 3 years of service. Indication show that the warm mix properties become comparable with the standard mix in performance sometime between 1 to 3 years.

A cost analysis was also provided for the cost of the WMA methodology and the fuel savings for the reduction in temperature. A cost analysis was also provided of the extended fatigue life (based on laboratory results) that is obtained using WMA additives.

#### Nevada Evaluation

Laboratory evaluation of RAP and WMA for projects in Nevada. Evaluation was on laboratory produced mixtures based on mix designs provided to actual projects. WMA additives were Advera, Evotherm, and SonneWarmix. The field production and testing has not yet occurred. This will happen this construction season and an update will be provided at the next meeting.

See presentation for additional details.

5. MSCR Implementation Across the Country: A progress report - Mike Anderson presented information on the implementation of the MSCR test from a national perspective.

MSCR database is on the AI website and will provide good information on the status of various agencies; however, some of the information may not be up-to-date if there have been recent specification changes.

AI recommends that States/Agencies move toward the implementation of the MSCR (AASHTO M 332). They recommend that this occurs on a regional basis and the PCCAS is the forum to accomplish this. The goal is consistency in specifications.

NEAUPG leads the nation in MSCR implementation. They have agreed to uniform implantation in 2013. Suppliers have been providing the grades as designated according to AASHTO M 320 and M 332.

SEAUPG formed a task force in 2010 to evaluate and have held webinar meetings to discuss the issue. Progress is slow but steady. Test temperature is an issue for the group – testing at either 64 or 67. There is some concern in this group because different criteria are being adopted between states. Grade designation is also an issue because some states are staying with the M 320 grade designations and not adopting the M 332 designations.

NCAUPG have a combined states binder group that is looking to implement. One issue is that there are a lot of binder grades in this group.

RMAUPG is still testing and evaluated the MSCR test through the WCTG. Industry representatives in the group are hesitant on implementation. No form of MSCR adoption at this time.

Multi-lab precision statements from AI ILS studies in all of the user producer groups were provided.

See presentation for more details.

6. National Issues and Updates - Matthew Corrigan provided an update on the ETG work and emerging topics in the nation.

Major items being discussed by the ETG

Asphalt mixture items are:

- a. Issues/Standards/Equipment/Training/Cyclic Fatigue Testing for AMPT
- b. Report recommendations for RAP usage based on the report from NCHRP 9-46 for design standards
- c. RAS provisional standards for use in asphalt mixtures have been published in the latest AASHTO standards
- d. FHWA is using accelerated loading facility for the evaluation RAP/RAS mixtures
- e. Survey in conjunction with NAPA of Recycled Materials and WMA usage in USA
- f. Coordination/review of NCHRP Projects funded as a result of WMA TWG
- g. Expansion of NCHRP 9-43 mix design study for higher binder absorption mixtures
- h. NCHRP 20-07 Task 361 for standards for equipment requirements for the Hamburg Wheel-Track test equipment

Asphalt binder items are:

- a. MSCR full standards in AASHTO
- b. Use of GTR in asphalt binders and how to specify and test. FHWA has technical brief on general usage.
- c. Recycled engine oil bottoms in asphalt binders. Two groups studying the issue: one literature by Asphalt Institute group and other trying to develop tests and/or specifications by AASHTO task force group.
- d. Provide support to AASHTO Subcommittee on Materials

See presentation for specific information.

7. The next Paving Asphalt Committee will be held October 14, 2015 at UNR. Other task group meetings and committee meetings will be held on October 13, 2015.

Future proposed meeting dates:

Paving Asphalt Committee – February 24, 2016 with task group meetings the day before. Location is UNR.

PCCAS Conference – May 10-11, 2016 (if suppliers approve in the fall) location to be determined  
An email will be sent to all the members to make sure that there is not any conflict with those dates.

8. Shauna adjourned the meeting at approximately 4:30 pm.

Respectfully submitted,

Brad Neitzke  
Shauna TecleMariam

**Pacific Coast Conference on Asphalt Specifications**  
**Paving Asphalt Committee Meeting**  
**March 25, 2015**  
**Reno, NV**

Name	Representing
1. BRAD WEITZKE	FRWA / WFLHD
2. EDGARD HITTI	ALON ASPHALT
3. JOE DeVal	WSDOT
4. BOB STAUCAARD	APART
5. Jenna Damon	J.Damon@dot.state.nv.us
6. Nathan Morian	NDOT
7. Larry Santucci	Retired (Guest)
8. JACK VAN KIRK	USSE
9. Mark Belshe	RPA
10. DEAN WEITZEL	RETIRED / UNR
11. Roger Smith	CP <sup>2</sup> Center, CSU, Chico
12. GREG HUNF	ERCON A&E
13. Mike Anderson	Asphalt Institute
14. Keven Heitschmidt	Albina Asphalt
15. Craig Cole	Targa Resources
16. Steven Escobar	Asphalt Pavement & Recycling Technologies
17. Sallie Houston	sallie.houston@slurry.com
18. Myle Burrows	Myle.Burrows@Ancon-Pav.com
19. Amir Gholipour	amir.gholipour@ancon-pav.com
20. Matthew Corrigan	matthew.corrigan@dot.gov
21. Katrina Lynch	Katrina.Lynch@mucv.com
22. DON POWELL	donp@sjr.com
23. Zia Alavi	alavi@ucdavis.edu
24. ED STARBUCK	SAN JOSE VAL REFINING Co., INC
25. Don Goss Jr	Valero Energy

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Name	Representing
26. Tony Limas	Granite Construction
27. Wayne Brinkmeyer	NDOT
28. DAVE Swirczek	NDOT
29. Bob Hunter	Asphalt Institute
30. Shauna Tede Marian	U.S. Oil
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