

Investigation of Low Temperature Cracking in Asphalt Pavements National Pooled Fund Study TPF-5(132)

October 27, 2008 Meeting Minutes

Maplewood, MN

3:00 – 3:45 pm

In Attendance

- Tim Clyne, Mn/DOT
- Roger Olson, Mn/DOT
- Ben Worel, Mn/DOT
- Shongtao Dai, Mn/DOT
- Mihai Marasteanu, UMN
- Bill Buttlar, UIUC
- Hussain Bahia, U-WI
- Chris Williams, ISU
- Chris Euler, NY DOT (phone)
- Len Makowski, WI DOT (phone)

Project Update

Ben gave a brief welcome and introductions were completed. The goal of this meeting was to discuss the current status, what's coming up, and what needs the Universities have for the participating states. The Universities were already meeting on their own so it was logical to check in with them while they were in town.

Mihai updated the group on the current status and went through the quarterly report task update on the project sent out to the TAP earlier this day. Highlights/action items include:

Contract

- University of Minnesota has completed its subcontract with Iowa State but is still working on agreements with University of Wisconsin and University of Illinois. Both are expected soon.

Task-1 Literature Review

- Task has been started

Task-2 Field Samples and Testing

- All MnROAD samples for this project have been sent to the U of MN. The U of MN also has a separate contract to test all of the remaining MnROAD 2008 mixtures for their low temperature properties. **Tim will send the remaining materials after the last day of paving on October 30, 2008.**
- Wisconsin 9.5 mm SMA PG70-28 from Wisconsin will be collected this fall. **Lenny will collect and send the materials.**
- New York PG 64-22 (w/ trap rock or gravel aggregate) may be collected this fall but probably more likely next spring. **Chris Euler will look into possible jobs that materials could be collected from.**
 - Samples required for each mix listed above
 - (9) 5-gallon buckets of loose mix
 - (1) 1-gallon bucket of binder
 - Copy of the mix design including Gmm
- Researchers will be proposing updating the short term and long term aging methods. The same total number of tests will be completed, but the 4 hour @135C tests will be replaced with aging at 5 days @ 85C in the laboratory. Cores will also be taken at

MnROAD in 2009 to add more long term aged materials. Some of the samples at 4% lab voids will be replaced by these field cores. **Mihai will update the workplan and email the request to the participating states.**

Task-4 TCMODEL Update

- Bill Buttlar updated the group on the progress of this task which includes both the funding from this project and other outside funding. Here are the highlights:
 - Sophie Leon has been hired as a graduate student for the U of Illinois.
 - The updated TC Model from this project will be combined with the integrated enhanced climate model to serve as a stand alone module for low temperature cracking that can be run alone from the MEPDG as needed. Greg Larson (ARA) and Bill are working on making this happen.
 - **The new software will be made publically available (freeware) and distributed on the project and university websites.**

Task-6 Validation of New Specification

- Most of the discussion related to this task included the collection of samples, efforts WRI has started, and performance data related to the 2006 Olmstead county road used in this study. The following are the action items related to this effort.
 - **Roger and Eddie pull together the distress surveys collected by Mn/DOT on these test sections and share with the group.**
 - **Hussain work with WRI to get their cracking surveys collected this fall and see what testing has been completed for these mixes. Share the results with the group.**
 - **Tim and Roger will get the mix designs including the Gmm for this project for the group.**
 - Chris Williams said Iowa State will be able to make the samples next summer (2009) and it will take approximately 1 week.

Next Meetings

- A TRB informal meeting will be held with the Universities and whoever may also be attending TRB. We will work to borrow a room from FHWA that may have conference call ability. Date/time/details to be determined.
- Next (funded) pooled fund meeting will be finalized at TRB. Expect the date to follow the AAPT meeting in Minneapolis **Thursday, March 19, 2009**. Use this date if states need to start their travel request plans before the January TRB meeting. The meeting will end at 3pm.