

Project Description:

This pooled fund study is open to any highway agency interested in using simple performance tests to aid in material characterization for design and analysis of flexible pavements. The objectives of this pooled fund study are to:

- 1) Nationally procure the AMPT for highway agencies interested in obtaining and using the AMPT to characterize asphalt mixtures designed using Superpave technology
- 2) Provide support in training technicians to use the AMPT to perform the proposed standard practices for measuring dynamic modulus, flow number, and flow time of asphalt mixtures compacted using the Superpave Gyratory Compactor (SGC)
- 3) Advance the nation-wide implementation and use of the AMPT for assessing performance of asphalt mixtures over a wide range of climatic conditions, materials, and structures.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

- The NHI Course #131118 - Asphalt Mixture Performance Tester course video DVD copies were distributed to pooled fund participants.

- AMPTs for North Carolina, Maine, Tennessee, New Jersey, Maryland, Kentucky, and Kansas were delivered and installed by the equipment vendors. In addition the AMPT for Ontario was delivered.

- Work on the implementation phase activities continued through a cooperative agreement between FHWA and the National Center for Asphalt Technology.

+ Dynamic Modulus and Flow Number Interlaboratory Study: Revisions to the study plan were discussed with the anticipation of initiating the study in fall of 2012.

+ AMPT National Workshop: This workshop has been scheduled for September 11-12, 2012 in Atlanta, GA. Speakers were lined up to complete the agenda. General registration was opened for anyone interested.

+ MEPDG Input Parameters: Work proceeded on the synthesis report with a working title of "Use of the AMPT for Characterizing Asphalt Material Inputs for MEPDG Implementation."

Anticipated work next quarter:

- The delivery of the Puerto Rico and Colorado AMPTs as well as the setup and installation of the Ontario AMPT are expected to be completed.
- Contract work to complete the next round of AMPT equipment orders.
- Work on the implementation support activities will continue with the National Center for Asphalt Technology. Details for the next quarter are listed after each activity.
 - + Dynamic Modulus and Flow Number Interlaboratory Study: NCAT will be evaluating opportunities for asphalt mixture sampling for the study. The study is not planned to start until fall of 2012, after all pooled fund participants have their AMPT equipment installed.
 - + AMPT National Workshop: Monitor workshop registrations and refine plans as needed. Finalize agenda, coordinate with speakers, and establish facilitator guidance for the round table discussions. Workshop will be held in September.
 - + MEPDG Input Parameters: Work will continue on the synthesis report.

Significant Results:

- To date, a total of 57 technicians and engineers from pooled fund participating agencies have been trained on the Asphalt Mixture Performance Tester through NHI Course # 131118.
- Twenty (20) AMPTs have been ordered, delivered, and installed for pooled fund participant agencies. In addition, one AMPT is pending installation and two AMPTs have been ordered for future delivery.

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

- It is anticipated that the discussion and feedback gathered during the round table segments at the AMPT National Workshop in September will identify future AMPT implementation needs. Those needs would then be considered with respect to the remaining time, scope, and budget of the pooled fund project.

Potential Implementation:

The AMPT evaluates asphalt mixture properties to assess potential performance. Transportation agencies can use the AMPT to: develop inputs for the structural design of flexible pavements, evaluate new asphalt mixtures including warm mix asphalt (WMA) and high reclaimed asphalt pavement (RAP) mixes, and obtain information helpful in monitoring asphalt mixes and performing quality assurance.