

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 Gyrotory 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 received from the training contractor. The course video will be distributed to pooled fund participants.
- AMPTs for North Carolina, Maine, Tennessee, New Jersey, Maryland, Kentucky, Ontario, Puerto Rico, Kansas, and Colorado were ordered from the equipment vendors.
- Planning work on the implementation phase activities began through a cooperative agreement between FHWA and the National Center for Asphalt Technology.
 - + Dynamic Modulus and Flow Number Interlaboratory Study: An initial study plan has been drafted and is under review.
 - + AMPT National Workshop: This workshop has been scheduled for September 11-12, 2012 in Atlanta, GA. A workshop announcement and preliminary agenda were distributed to the pooled fund participants. Information on advance registration for the pooled fund participating states was also provided. General registration will open in May.
 - + MEPDG Input Parameters: An outline has been developed to guide this work effort.

Anticipated work next quarter:

- Distribution of the NHI Course #131118 - Asphalt Mixture Performance Tester video to pooled fund participants.
- The delivery, setup and installation of the 10 currently on order AMPTs are expected to be completed in the 2nd Quarter of 2012.
- Contract work to prepare for the next round of equipment orders will continue.
- Work on the implementation support activities will continue with the National Center for Asphalt Technology. Details for the next quarter are listed after activity.
 - + Dynamic Modulus and Flow Number Interlaboratory Study: Incorporate comments into a revised study plan and coordinate ILS efforts with SEAUPG and NEAUPG AMPT Users Groups. Study is not planned to start until fall of 2012, after all pooled fund participants have their AMPT equipment installed.
 - + AMPT National Workshop: Finalize and confirm speakers for the user's experience portion of the workshop. Monitor workshop registrations and refine plans as needed. Establish facilitator guidance for the round table discussions.
 - + MEPDG Input Parameters: A literature review and interviews of lead states will be conducted in the next quarter.

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.
- Thirteen (13) AMPTs have been ordered, delivered, and installed for pooled fund participant agencies. Ten (10) additional 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.