

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Federal Highway Administration (FHWA)

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> <p style="text-align: center;">TPF-5(178)</p>	Transportation Pooled Fund Program - Report Period: <input checked="" type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 1 – December 31) <p style="text-align: right;">Year: 2014</p>	
Project Title: <p style="text-align: center;">Implementation of the Asphalt Mixture Performance Tester (AMPT) for Superpave Validation</p>		
Name of Project Manager(s): <p style="text-align: center;">Jeff Withee</p>	Phone Number: <p style="text-align: center;">202-366-6429</p>	E-Mail <p style="text-align: center;">jeff.withee@dot.gov</p>
Lead Agency Project ID:	Other Project ID (i.e., contract #):	Project Start Date: <p style="text-align: center;">September 2008</p>
Original Project End Date: <p style="text-align: center;">September 2011</p>	Current Project End Date: <p style="text-align: center;">December 2014</p>	Number of Extensions:

Project schedule status:

- On schedule
 On revised schedule
 Ahead of schedule
 Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date
\$3,791,452	\$2,829,804	75%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
0%	\$0	88%

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.):

- Work on implementation phase activities continued through a cooperative agreement between FHWA and the National Center for Asphalt Technology (NCAT.)
 - + Dynamic Modulus and Flow Number Interlaboratory Study: The Final report was distributed to study participants and a presentation webinar scheduled for April 16, 2014.
 - + Friction Reducer Study: This evaluation study on the potential for spray silicone to improve the consistency and reduce the effort in fabrication of greased latex friction reducers continued.
- Work on implementation phase activities continued through a cooperative agreement between FHWA and the Asphalt Institute.
 - + Specimen Fabrication Ruggedness Study: The mixture conditioning oven temperature variability portion of the work concluded and the specimen fabrication phase is underway.
 - + Fatigue Testing Study: A study plan is under development to evaluate AMPT fatigue testing alongside other fatigue cracking tests.

Anticipated work next quarter:

- 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: Webinar presenting the final results will be held on April 16, 2014.
 - + Friction Reducer Study: Preliminary results of the evaluation will be available.

- Work on the implementation support activities will continue with the Asphalt Institute. Details for the next quarter are listed after each activity.
 - + Specimen Fabrication Ruggedness Study: Work will continue following the developed study plan.
 - + Fatigue Testing Study: A draft study plan for review is expected.

- One additional AMPT is expected to be ordered for a state participant.

Significant Results:

- A total of 57 technicians and engineers from pooled fund participating agencies and 82 overall have been trained on the Asphalt Mixture Performance Tester through NHI Course # 131118.

- Twenty-six (26) AMPTs have been ordered, delivered, and installed for pooled fund participant agencies. In addition, one AMPT has been delivered and is pending installation.

- The National Pooled-Fund Workshop on the AMPT brought together over 70 members of the AMPT user community representing state DOTs, consultants, equipment vendors, universities, and FHWA to share best practices and identify future AMPT implementation needs.

- A synthesis report titled "Use of AMPT for Characterizing Asphalt Material Inputs for Pavement ME Design Implementation" was completed to document best practices.

- The AMPT Pooled-Fund Interlaboratory Study was completed and a final report on testing variability and investigation of air void effects is available.

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).

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), high reclaimed asphalt pavement (RAP) mixes, and recycled asphalt shingles (RAS) mixes, and obtain information helpful in monitoring asphalt mixes and performing quality assurance.