

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Date: _____ 1-15-2016 _____

Lead Agency (FHWA or State DOT): _____ Indiana DOT _____

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> TPF-5(021)	Transportation Pooled Fund Program - Report Period: <input 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 checked="" type="checkbox"/> Quarter 4 (October 1 – December 31)	
Project Title: North Central Superpave Center Base Funding		
Name of Project Manager(s): Tommy Nantung	Phone Number: 765/463-2532 x 248	E-Mail: tnantung@indot.in.gov
Lead Agency Project ID: TPF-5(021)	Other Project ID (i.e., contract #):	Project Start Date: October 1, 2002
Original Project End Date:	Current Project End Date:	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
Continuing		Continuing

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date

Project Description:

The North Central Superpave Center began on July 1, 1995, as one of five regional centers established to assist the states/provinces and industry in the region with the implementation of the Superpave mix design system for hot mix asphalt. The role of the NCSC has evolved to include all general hot mix asphalt issues as states in the region have adopted Superpave. The Center is administered through the Joint Transportation Research Program at Purdue University and is guided by a Steering Committee consisting of representatives of the agencies and industry in the participating states.

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

Progress will be reported in terms of the major activities planned for this project as established by the Steering Committee.

Training: No training was planned for this quarter, but plans were made to host a training workshop on the dynamic shear rheometer by Anton Paar in April 2016. Training will be developed and provided to participating states and other groups upon request. Discussions began regarding developing a training program for a laboratory testing firm.

Communication: Information requests are processed as they arrive; about 20-25 per month are received. Updates to the website and hosted sites (Multi-Regional Training and Certification Group (M-TRAC) and Combined State Binder Group (CSBG) were also posted. Published reports have now been downloaded from the Joint Transportation Research Program website over 7700 times. A new communication initiative was begun this quarter when the NCSC hosted the first Regional Forum on Asphalt Pavement Cracking. These regional forums will allow states and industry in the regional share information on topics of interest through tele or video conferencing. They will be tailored for different groups, depending on the topic. The second Regional Forum is being planned for February to discuss performance testing.

Third Party Lab and Testing Services: Work continued on proficiency testing and maintenance of AMRL accreditation records. The lab inspection was held this quarter.

Research: Work continued on the project entitled *Optimizing Laboratory Mixture Design as it Relates to Field Compaction in Order to Improve Hot-Mix Asphalt Durability*. Testing has been completed and the draft final report was submitted. The technical director made a presentation on the topic in Kansas in December and has been asked to write an article for *Roads and Bridges* magazine.

Work continued on a study for INDOT entitled *Analysis of the MSCR Asphalt Binder Test and Specifications for Use in Indiana*. Additional binders were tested (for a total of 17) and additional years of data from the Indiana DOT were added to the previous analysis. Mixture testing was completed with eight different binders, selected by the Study Advisory Committee (SAC). The draft final report was prepared at the end of December and is being reviewed internally before being sent to the SAC for a fast-track review. The project will be completed by the end of February. INDOT plans to implement the new test protocol and specification.

The study *Performance of Warranted Asphalt Pavements* is nearly complete. Existing INDOT data was collected from the central office and research division. The draft final report was submitted to the Study Advisory Committee for review. A TRB paper based on the analysis was accepted for presentation at the 2016 meeting.

Work continued on the study *Tack Coat Installation Performance Guidelines*. A masters student has been preparing the literature review and review of other states' specifications. Attempts to obtain cores from existing milled asphalt and concrete pavements for lab testing have so far been unsuccessful, so the research team is trying to collect intermediate and surface mixes for lab testing. We will again attempt to get cores of milled surfaces for testing in the Spring. The experimental design will reflect the use of lab-compacted specimens instead of cores and will be sent to the Study Advisory Committee next quarter.

Technology Transfer: Planning continued for the next meeting North Central Asphalt User Producer Group and NCSC Steering Committee in 2016, which will be held immediately following the annual meeting of the Association of Asphalt Paving Technologists. The Technical Director met with the Kansas and Missouri DOTs to learn what their challenges and are in asphalt.

Anticipated work next quarter:

Training: No training is currently planned but a meeting will be held in February to discuss developing a training program for the testing lab mentioned above.

Communication: Updates to the NCSC and NCAUPG websites will be posted. Information requests will be answered as received. The second regional forum will be held.

Third Party Lab and Testing Services: Third party testing will be performed as needed. Work will continue on maintaining AMRL accreditation.

Research: Work will continue as planned on the research projects. New research needs will be identified and proposals prepared as appropriate.

Technology Transfer: The NCSC staff will schedule state visits throughout the region to learn of their top issues regarding asphalt mixtures and pavements and to reacquaint DOT staff with the Superpave Center and its resources. Based on the findings, proposals for pooled fund research and/or funding requests will be developed.

Significant Results:

Readership reports for the published research reports show that they have been downloaded over 7700 times.

An increase in third party testing requests demonstrates the value of AMRL accreditation of the lab and represents an increasing funding source.

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).

No major new problems this quarter. There is a delay in obtaining more binder for the MSCR study, but it is not expected to be of long duration, so should be recoverable.

Potential Implementation:

Research results are considered individually for possible implementation by the states as they become available. There is great interest across the country in the study on optimizing compaction and on past recycling research, which is leading to numerous speaking engagements, which serve to spread the results to a broader audience. The NCHRP synthesis on Fiber Additives addresses a current need since fibers are again being marketed to states and interest in their use is growing. INDOT is planning to implement the findings of the study on the MSCR test and specification.