TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Date: _____4-4-2016_____

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.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* TPF-5(021)	**Transportation Pooled Fund Program - Report Period:** ☒Quarter 1 (January 1 – March 31) ☐Quarter 2 (April 1 – June 30) ☐Quarter 3 (July 1 – September 30) ☐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 planning continued for 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 8000 times. A new communication initiative begun last quarter and continued this quarter when the NCSC hosted the second Regional Forum on Asphalt Performance Testing. Over 30 people from eight states participated in the web-based forum. These regional forums will allow states and industry in the region to share information on topics of mutual interest through tele or video conferencing. They will be tailored for different groups, depending on the topic. They will be offered at least quarterly.

Third Party Lab and Testing Services: Work continued on proficiency testing and maintenance of AMRL accreditation records. A response was submitted to the lab inspection findings from last quarter. Testing of RAP samples from Vermont and friction testing for an Indiana contractor were completed.

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*. The draft final report was revised, and the final report submitted. The technical director wrote an article on the project for *Roads and Bridges* magazine. She has also been asked to participate in a workshop in Virginia to assist VDOT as they explore options to improve the durability of asphalt mixes.

Work was completed on a study for INDOT entitled *Analysis of the MSCR Asphalt Binder Test and Specifications for Use in Indiana*. The draft final report was reviewed by the SAC and comments were addressed. The final report has been accepted for publication, as has a paper presented at the 2016 TRB Annual Meeting. INDOT plans to implement the new test protocol and specification.

The study *Performance of Warranted Asphalt Pavements* is nearly complete. The draft final report was reviewed by the Study Advisory Committee and revisions are being made to the report. A TRB paper based on the analysis was accepted for publication.

Work continued on the study *Tack Coat Installation Performance Guidelines*. A masters student has prepared the literature review and review of other states' specifications. Attempts to obtain cores from existing milled asphalt and concrete pavements for lab testing were unsuccessful, so the research team has been testing samples fabricated in the lab from intermediate and surface mixes collected in the field last fall. We will again attempt to get cores of milled surfaces for testing in the spring.

A proposal was prepared for an industry-supported project to develop a method to determine the fiber content in fiberized crack sealing material. If accepted, work will begin next quarter. Proposals were also submitted to two other state agencies for possible funding.

Technology Transfer: The NCSC hosted the North Central Asphalt User Producer Group meeting in Indianapolis in March, immediately following the annual meeting of the Association of Asphalt Paving Technologists. The Technical Director gave a presentation on *What is the MSCR Test and Why Do We Need It?* for the Minnesota Asphalt Pavement Association's Contractors' Workshop in February.

Anticipated work next quarter:

Training: No training is currently planned but a proposal is being prepared to develop a comprehensive 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 third regional forum will be held.

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

Research: Work will continue as planned on the research projects. New research needs will be identified and proposals prepared as appropriate. The Technical Director will participate in the Materials Peer Group meeting with INDOT in April.

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 8000 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.

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.