TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Date: _____01-Apr-2020_____

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(320)	**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(320)	**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: None provided this quarter. The requested training for a team from Côte d'Ivoire through ASTM International is still under development.

Communication: Information requests are processed as they arrive; about 20 per month are received. Published reports have now been downloaded from the Joint Transportation Research Program website over 13071 times.

Third Party Lab and Testing Services: The research engineer continued her work on proficiency testing and maintenance of AMRL accreditation records. One third-party testing (from VT) was requested this quarter.

Research:

The final report for *Investigation of Delta T_c for Implementation in Indiana* was published this quarter (January 2020).

Work on *Real Life Experiences with Major Pavement Types* continued. Sites for detailed study were identified during the last SAC meeting. Some LTPP sites were also shortlisted. There was some trouble accessing video logs through the INDOT system, which was later resolved.

Work started on *Developing Lower Modulus Polymer Resin Binder Systems Specifications for High Friction Surface Treatments (HFST) on Asphalt Pavements in Nevada,* which was awarded last quarter. Two resins from KwikBond are currently being tested (on campus). Other resins sources are being pursued.

The NCSC was selected to conduct another NCHRP Synthesis study. The topic is *Practices for Assessing and Mitigating the Moisture Susceptibility of Asphalt Pavements.* The survey was finalized by the panel and sent out to state/agency representatives. Results will be compiled next quarter.

The paper submitted to Association of Asphalt Paving Technologists (AAPT) conference was accepted for presentation at the annual meeting and will be published later this year.

The NCSC, in collaboration with Prof. J. Youngblood of the Material Science Department of Purdue University, submitted a proposal titled *Chemical Compatibilzation of Waste Plastic into Asphalt Using a Quantitative Solubility Parameter Based Design Approach* for consideration under the FHWA Broad Agency Announcement (BAA) for the Exploratory Advanced Research (EAR) program (Topic 4).

Technology Transfer: The Technical Director gave a presentation for the Senior Design class at Purdue University, School of Civil Engineering. At TRB, she chaired the Asphalt Section meeting and attended the Design and Construction Group Executive Committee meeting. The technical director presented a history of use of plastics in asphalt at TRB and on chip seals vs. microsurfacing at the Indiana Mineral Aggregates Association in January.

Anticipated work next quarter:

Training: Training will be developed and provided as requested. With the rise in COVID-19 cases, travel next quarter maybe limited and online training will be considered. Training for the delegation from Cote D'Ivoire in cooperation with ASTM, is put on hold due to the developing situation.

Communication: Updates to the M-TRAC website will be posted. Information requests will be answered as received.

Third Party Lab and Testing Services: AMRL proficiency sample testing and record keeping will continue to maintain lab accreditation. Third party testing for VT will be completed. Lab usage fees will be implemented.

Research: Other resin sources will be obtained for the Nevada HFST project. Work will continue on the Real Life Pavement project. Survey results from the NCHRP Moisture Damage synthesis will be started along with report writing.

Technology Transfer: Additional opportunities for tech transfer will be pursued as they become available.

Significant Results:

Final report titled *Investigation of Delta T_c for Implementation in Indiana* was published.
Readership reports for the published research reports show that they have been downloaded over 13071 times.

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:

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.