TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Indiana

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:** 765/463-1521 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	$1,710,000	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
$25,000 (25%)	$25,000	25%

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 is reported below in terms of the major areas of activity as directed/approved by the Steering Committee.

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

Training: No formal training was planned for this quarter.

Communication: Routine updates were made to the NCSC website. Approximately 25 requests for information on a variety of topics from around and beyond the region were received and responded to via phone and email.

Third Party Lab and Testing Services: The NCSC underwent its regular AMRL inspection in July and passed with flying colors. Requests for testing were received from an aggregate supplier, Pennsylvania DOT (through a consultant) and the FHWA; materials are being received and work will begin as soon as all materials are available for the individual projects.

Research: Work began this quarter on a new project entitled "Optimizing Laboratory Mixture Design as it Relates to Field Compaction in Order to Improve Hot-Mix Asphalt Durability." Work continued on "Maximizing the Use of Local Materials in HMA" and "Investigating the Feasibility of Integrating Pavement Friction and Texture Depth Data in Modeling for INDOT Pavement Management System." A former NCSC post-doctoral research fellow visited the NCSC this quarter to assist with data analysis for "Risk Management of Low Void Content Asphalt Mixtures;" that final report is in preparation. Testing was nearly completed for the study "Evaluation of Recycled Asphalt Pavement for Surface Mixtures." Review comments were addressed and the publication process began for "Superpave: Anatomy of a Research Program" at NCHRP and "Investigation of Low and High Temperature Properties of Plant-Produced RAP Mixtures, Phase II" at FHWA. A technical paper based on the RAP study was submitted to the Association of Asphalt Paving Technologists this quarter.

Technology Transfer: Work began on planning the 2012 North Central Asphalt User Producer Group (NCAUPG) Annual Technical Conference.

Anticipated work next quarter:

Work will continue on the on-going research projects and third party testing. Plans will be finalized for the NCAUPG Technical Conference, to be held in Indianapolis in February. The draft final reports for "Evaluation of Recycled Asphalt Pavement for Surface Mixtures" and "Investigating the Feasibility of Integrating Pavement Friction and Texture Depth Data in Modeling for INDOT Pavement Management System" will be completed. Publication of the reports "Superpave: Anatomy of a Research Program" by NCHRP and "Investigation of Low and High Temperature Properties of Plant-Produced RAP Mixtures, Phase II" by FHWA should occur. A new edition of the newsletter will be published in consultation with the Superpave Center at Auburn University. Presentations will be made to the Kansas Asphalt Forum, Polish Asphalt User Producer Group and others. A symposium on Sustainable Asphalt Technologies will be presented at the ASTM Road and Paving Materials Committee meeting in December.

Significant Results:

The FHWA RAP study showed that the current AASHTO standards for RAP usage may be too conservative, at least for states with materials and climates similar to those in Indiana and Michigan. Based on the testing in that study, it may be possible to increase RAP contents to 25% or so before changing the virgin binder grade. States would be well advised to verify this by testing their own typical materials.

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).

A small staff and difficulties in finding qualified graduate students interested in asphalt make completion of some of the work quite challenging.

Potential Implementation:

Research results are considered individually for possible implementation by the states as they become available. The results of the FHWA RAP study have already generated a lot of interest, and this is expected to increase after publication of the report and presentation of the findings at the NCAUPG Technical Conference and Association of Asphalt Paving Technologists Annual Meeting.