

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): WisDOT

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-S(270)	Transportation Pooled Fund Program - Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input checked="" 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)	
Project Title: Recycled Materials Resources Center- Third Generation (RMRC-3G)		
Name of Project Manager(s): Angela Pakes Ahlman and Tuncer B. Edil	Phone Number: 608-890-4966	E-Mail angela.pakes@wisc.edu
Lead Agency Project ID: TPH-5(270)	Other Project ID (i.e., contract #):	Project Start Date: August 30, 2012
Original Project End Date: September 30, 2015	Current Project End Date: September 30, 2015	Number of Extensions: 0

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
\$42,097.00	\$34,799.42	82.7%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$2,587.98; 6.1%	\$2,587.98	82.7%

Project Description:

The goal of RMRC-3G is to provide the resources and activities needed to break down barriers and increase utilization of recycled materials and industrial byproducts. This is being done through carefully integrated and orchestrated activities that include applied research in key areas relevant to transportation applications combined with outreach programs that provide the educational and technical resources needed to maximize the rate at which recycled materials and industrial byproducts are used in transportation applications.

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

Sub-meetings were held with the research advisory group for each RMRC project.

Phone calls and emails were used as means to promote the RMRC-3G. Calls and emails through the website were responded to. The website is reviewed and improved continually.

Abstract and presentation for ADC60 Subcommittee was prepared.

Development of Recycled Materials Informational Data Sheets and Quantification of System-wide Life Cycle Benefits - Data collection from two member states (VDOT and PennDOT) are taking longer than expected, but both states committed to working on delivering needed project information. Working to complete data collection from other four member states. Review the benefit analysis methodology.

Use of Recycled Materials as Mechanically Stabilized Earth (MSE) Retaining Wall Reinforced Backfills - In this quarter team continued progressing on Tasks 1, 2, and 3 which included literature review, critical assessment of the recycled materials and laboratory tests. The samples of recycled materials including RCA and RAP and geosynthetics including woven geotextile and geogrids and were obtained. Pull-out tests and direct shear tests on geotextile-RCA were completed to obtain the interfacial shear strength. Replicate tests were also conducted to obtain compaction characteristics and index properties of RAP. Set up of large scale triaxial cell is also complete and the tests will start soon. One-dimensional creep tests were conducted on sample foundry sands to obtain a correlation between the compressibility and bentonite content in foundry sand.

Three GRT tests with non-woven geotextile and two GRT tests with woven geotextile are completed. However the tests with woven geotextile showed some problems with air bubbles and potential side wall leakage. These tests are now being repeated again.

Web Connection – progress made to incorporate each state environmental regulations and beneficial reuse policies to the backbone structure of the server. Presentations given to Executive Board and ADC60 to obtain milestone feedback to use for further refinement of the program.

Anticipated work next quarter:

- Sub-meetings will be held with the research advisory group for each RMRC project.
- Follow up from ADC60 meeting and interest from US EPA, EPA Region 9, ODOT and others.
- Attend and present to the AASHTO Subcommittee on Materials in August.
- Continue with “**Development of Recycled Materials Informational Data Sheets and Quantification of System-wide Life Cycle Benefits**” and complete data collection from all member states. Review the benefit analysis methodology.
- **MSE Walls** - Lab work to finish Tasks 1 and 2 and continue to progress on laboratory tests for Task 3. GRT tests will continue with woven geotextile samples.
- **Web Connection** – refinements to database and building case studies within, checking on environmental regs.

Significant Results:

- Continued outreach activities for active members, future potential members and industry.
- Held weekly meetings to discuss progress.
- US EPA meeting setup in August as well as presentation to AASHTO-SOM.

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).

Principal Investigators on projects this quarter have discussed needing more time for completion (some year end) which would require more time RMRC oversight and closeout processes. In addition, the original contract was never resolved once the member states contribute annual funds. Next steps with the Executive Committee are in discussion and a contract extension is being drafted.

Potential Implementation:

The three research projects will have significant implementation potential.