

Virginia Transportation Research Council  
Contract/Grant Progress Report

<b>Project No:</b> <u>TPF5 (045)</u>	<b>Starting Date:</b> <u>3/1/2003</u>	<b>Target Completion Date:</b> <u>12/31/06</u>
<b>Project Title:</b> <u>Development of Performance Guidelines for the Selection of Bituminous Hot-Poured Crack Sealants</u>		
<b>Performing Agency:</b> <u>University of Illinois</u>		
<b>Principal Investigator(s):</b> <u>Imad L. Al-Qadi</u>		
<b>Date of This Report:</b> <u>08/31/06</u>	<b>Next Report Due Date:</b> <u>11/30/06</u>	

**Project Description**  
The project will establish performance guidelines for the proper selection of hot-poured crack sealants. The guidelines will be in the spirit of the Performance Grade (PG) system for bituminous binders with some modifications to the equipment, data analysis procedure, and testing methods.

**Research Activities Pursued This Period:**

- The research team has completed the final analysis and developed a test standard for the viscosity test.
- The BBR testing is completed (using Canon instrument) after implementing the new aging procedure. Test repeatability study is completed. Aging procedure has been examined and most sealants become stiffer. The research team has also completed the final analysis for the BBR test.
- The blister test is currently being fine-tuned.
- The DTT sample geometry and loading rate has been selected. The fracture toughness and the linearity response testing for the 15 aged sealants is underway.

**Problems Encountered:**

- No major problems this quarter

**Activities Planned for Next Period:**

- Develop a methodology to correlate the rate of crack movement to the laboratory sample loading rate using the DTT measurements
- Continue evaluating the fracture toughness test and the linearity response using the new DTT manufactured molds.
- Determine the repeatability of the semi-cylindrical adhesion fixture.

**Budget Status:**

Current FY Project Budget: \$289,862		Project Budget Lifetime: *820,000
Current FY Expenditures: \$132,054+	as of	Expenditures LTD: \$514,714
Percent Expended this FY: 47%	(Date)	Percent Expended LTD: 62.77%
+ Expenditures provided as of June 2006		

**Timetable:** Project is (check):

On Schedule	<input checked="" type="checkbox"/>	
Behind Schedule *	<input type="checkbox"/>	(explain above)
Ahead of Schedule	<input type="checkbox"/>	

Preparer's Signature: _____	Date: <u>8/25/06</u>
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