



RESEARCH PROJECT CAPSULE [12-5PF]

July 2012

TECHNOLOGY TRANSFER PROGRAM

STC Synthesis of Research Results for Water Quality Management at Construction Sites

JUST THE FACTS:

Start Date:
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Duration:
12 months

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Funding:
FHWA

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POINTS OF INTEREST:

*Problem Addressed / Objective of
Research / Methodology Used
Implementation Potential*

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The RAC Region II has initiated a collaborative research program consortium through the Transportation Pooled Fund (TPF) Program. The research program is called the Southeast Transportation Consortium (STC) and is intended to encourage coordination among member states and provide resources and management of collaborative studies. The consortium intends to address high priority transportation research topics of common interest to the southeastern and adjoining states. Louisiana serves as the lead agency in the STC.



PROBLEM

The United States Environmental Protection Agency (EPA) has proposed a rule (40 CFR Part 450, Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category; Proposed Rule) that would establish non-numeric and numeric effluent limitation guidelines (ELGs) for storm water runoff from construction sites. The EPA received numerous comments on the November 2008 draft rule and subsequently withdrew the numeric portion of the rule to allow further evaluation. This proposed rule is of special significance to state departments of transportation (DOTs) because of the potential costs required to achieve compliance, particularly with strict numeric limits being imposed on the allowable level of turbidity.

State DOTs currently manage water quality impacts of road construction by using construction Best Management Practices (BMPs). Typically, BMPs are prescribed in erosion and sediment control plans or storm water pollution prevention plans. These plans are required to be

implemented by a contractor. Although the plans are working documents, practical implementation can be problematic.

This synthesis of Research Results on Water Quality Management at Construction Sites will summarize the results of the on-going research of water quality impacts at construction sites for the 10 states in the Southeast Transportation Consortium (STC): Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Tennessee, Virginia, and West Virginia. Best practices and implementation status will be summarized.

OBJECTIVE

The objective of this research is to provide a technical summary of the status and implementation programs, projects, and research efforts involving water quality management at construction sites of member states.

METHODOLOGY

The first task will be to hold a kick-off meeting with the STC Technical Advisory Committee (TAC). During the kick-off meeting, project objectives will be discussed and outlined. These objectives will be used to develop a questionnaire or information template that will in turn be used in contacting state DOTs for information related to their on-going practices and research projects. This information may include BMPs specifications, development procedures for erosion control plans, state regulatory requirements, sampling and monitoring procedures and requirements, site inspection procedures, and review of Standard Operating Procedures.

Following development of the information template, information will be gathered and synthesized at a rate covering four states per month. The findings and data obtained from the effort will be submitted to the TAC in a draft report for their review and comment. Comments will be incorporated and a Final Report delivered. The work includes making a presentation to the STC members at the annual meeting in Baton Rouge, Louisiana.



Photo courtesy of EPA website
<http://cfpub.epa.gov/npdes/stormwater/const.cfm>

IMPLEMENTATION POTENTIAL

This synthesis project will help develop synergy and provide and promote transfer of knowledge within the STC on matters of water quality management. Previously, there has not been an attempt to summarize on-going studies and the findings of on-going research. A review of the types of research being conducted and the results of these studies will result in implementation of successful compliance strategies by member states and possibly identify areas for additional research.