Project Title: Beneficial Reuse of Dredged Soil-Transferring Portland-Limestone Cement and Geosynthetics Technology Toward Sustainable Solutions to Dredged Material Management

Principal Investigator
Isaac L. Howard, PhD, PE
Department of Civil and Environmental Engineering
Mississippi State University (MSU)
Phone: 662-325-7193
Email: ilhoward@cee.msstate.edu

TRB Keywords: Dredged Soil, Soil Stabilization, Portland-Limestone Cement, Geosynthetics

NCITEC Funds: $14,167

Matching Funds: $14,174

Project Summary

The objective of this project is to hold a day long technology transfer event focusing on sustainable use of material dredged from ports and harbors where portland-limestone cement (PLC) and geotextile tubes are featured. This event is to make use of the information collected during the NCITEC project titled "Sustainably Enhancing Intermodal Freight Operation of Ports Using Geotextile Tubes", as well as additional information that includes data assembled after the aforementioned project completed. There was a considerable amount of information collected during the project that could be useful for a broad audience, and the technology transfer efforts during the original project were not comprehensive enough to reach all potential stakeholders, especially the data collected during later portions of the study.

Ports and harbors are a key component to any intermodal freight system. In some senses, ports define the true nature of intermodal activities as they are the transfer point that connects ships or barges to rail lines and trucks. An ever present challenge faced by ports and harbors is dredging and subsequent handling of the dredged soils, which can be contaminated, as dredged soils have poor engineering properties, and are often very high moisture content fine grained soils. Any improvements to dredged material management benefit ports and harbors. Two targeted benefits from the efforts of the aforementioned NCITEC research were sustainability and economic competitiveness, which are to be key facets of the proposed day long technology transfer event. The event is to offer 3.5 professional development hours (PDHs), which are needed by practitioners to maintain licensure