

1st QUARTERLY PROGRESS REPORT
1 September, 2013 – 30 November, 2013

PROJECT TITLE: Collection System Clogging in Florida: A Reality Check

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COMPLETION DATE: September, 2014

PROJECT WEBSITE ADDRESS (URL):

<http://www.eng.fsu.edu/~abichou/projects/LCS%20Clogging.html>

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Work accomplished during this reporting period:

The first step of the project was to perform a literature and database review of all available clogging documentation and testing. The team met with the FDEP to familiarize themselves with the leachate quality database used by the Department. There, leachate quality data for hundreds of landfills in Florida was obtained in the form of an excel spreadsheet. This data was evaluated and the best landfills were selected. The method of selection was based on a division of the state of Florida into 6 districts – Northwest, Northeast, Central, Southwest, Southeast and South – and three landfills from each district were then selected.

After picking the landfills, all of the leachate quality data was pulled from the mass database and put into separate excel documents to make it easier to handle. From these, necessary data such as: TDS, COD/BOD, alkalinity, heavy metal concentrations, pH, temperature, etc., will be extracted and utilized to calculate leachate make-up.

The team also reviewed previously performed laboratory and full-scale experiments by various groups. Some groups studied LCS clogging under different leachate quality conditions such as ash monofil vs. co-mingling of ash and MSW. Other groups studied possible ways of preventing clogging such as reducing organic waste landfilling and periodically flushing out the LCS. All of these reports will be used as a basis for this project since there is scarce leachate quantity data available for most landfills in Florida.

Simultaneously, the website for the project was created and edited as needed to keep up with the progress. It will continue to be altered throughout the duration of the project as new materials will become available for posting.

Information Dissemination Activities:

Built Website for the project:

<http://www.eng.fsu.edu/~abichou/projects/LCS%20Clogging.html>

Formed at TAG: Peter Grasel, Henry Freedenberg, Robert Mills, Lee Martin, Clayton Clark, Gang Chen

TAG meetings: Friday, January 24, 2014, FAMU/FSU College of Engineering