

Bio-Reactive Landfill Cover Systems
A research Project Funded
by
Florida Center for Solid and Hazardous Waste Management

Progress Report 2

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PROJECT STATUS

Task 1 – Landfill Gas Generation Data Collection

The first step of the project consisted of an extensive literature review to define the range of landfill gas generation for the different types of landfills. Literature considered included technical journals and industry publications and Representatives from U.S. Environmental Protection Agency.

In addition to the range of landfill gas generation, it will be very beneficial to the project to focus on location where continuous collection of gas generation data is available such as daily or weekly values. This effort is still underway. Continuous data of gas generation is not readily available and might not be feasible at this time.

A literature review document on the state of the art of methane oxidation is also being developed.

Task 2 – Column Experiments

Four columns were constructed so far. Soil from the Leon County Landfill was mixed with bio-solids from the Tallahassee Water Treatment Plant. Mixtures of 1:4, 1:3, 1:2, and 1:1 (bio-solids, soils) were compacted and their optimum water content and dry unit weight measured. Methane is being introduced at the bottom of four columns. The length and the media in the columns changes from column to column. Gas samples are being retrieved along the length of the columns. No gas analysis data is yet available.