Septage Bioreactor Landfill

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Abstract: A county-owned landfill has been conducting a patented, first-in-the-nation full size septage bioreactor landfill project under a Research, Development, and Demonstration Project (RDDP) permit. Septage is delivered to the project site, processed, and injected into the MSW waste mass to enhance waste decomposition. The project will address two essential engineering issues: 1) the benefit of septage addition to waste decomposition and 2) the method of distributing septage into the waste mass safely and effectively.

The acceptance of septage at the project site started in June, 2008. The performance of the septage bioreactor, in terms of rate and composition of landfill gas (LFG) generation, leachate composition and waste settlement have been systematically monitored since the commencement of the septage injection. By operating this septage bioreactor landfill cell, the overall gas collection rate at this landfill has increased by 60%, which has resulted in a successful development of a commercial gas-to-electric plant.

****** Everyone is invited – refreshments will be available**********