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STUDY OF MSW DUMP YARD LEACHATE RECIRCULATION THROUGH DIFFERENT TYPES OF SOIL FOR DIFFERENT SEASONS

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Abstract

Leachate recirculation is a leachate management technique and an option for faster stabilization of MSW. This paper presents the results of a pilot scale study on the landfill bioreactor (model) of 11 inch diameter and 15 inch height loaded with different soil. Study focuses on the effects of recirculation of the leachate on different type of soil and on the leachate itself. It also focuses on treatment of landfill leachate in column experiments. The reactor consists of layers of pebbles and different soil , the leachate used for recirculation was generated artificially. The leachate samples from the reactors were monitored for pH, BOD, COD, alkalinity and hardness. Higher efficiency in removal of BOD, COD, alkalinity and hardness was observed in reactor. COD and BOD removal achieved was 79% and 86% respectively. he observation indicates that the recirculation technique is a viable approach to treat landfill leachate.

Keywords : Landfill, leachate recirculation (LR), leachate management.