

Treatment of leachate from municipal solid waste landfill

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Abstract: Leachate is highly complex and polluted waste water that is produced by the introduction of percolation water through the body of landfill treatment, and generation of a leachate is a major problem for municipal solid waste (MSW) landfills and causes significant threat to surface water and groundwater. Leachate results from precipitation entering the landfill from moisture that exists in the waste when it is composed. This study is a review of landfill leachate treatments. **Approach:** The advantages and disadvantages of the various existing leachate treatments discussed under the items: (i) Leachate channeling (combined treatment with domestic sewage, recycling) (ii) Biological processing (aerobic and anaerobic) (iii) Chemical/physical treatment (iv) Membrane filtration (microfiltration, ultrafiltration, nano filtration and reverse osmosis). The treatment efficiency depending on operating condition of India is discussed. Finally due to an increase in strict rules and regulations leachate treatment plants do not reach the required specifications. The kind of leachate treatment technology should be chosen on the basis of specific situation.

Key words: Landfill leachate treatment, biological treatment, physical/chemical treatment, membrane filtration.
