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A COMPARISON BETWEEN DIFFERENT SCENARIOS OF ROMANIAN MUNICIPAL SOLID WASTE TREATMENT BEFORE LANDFILLING

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Abstract

The acceleration of urbanization phenomena in many countries increases the generation of municipal solid waste. One of the biggest problems that Romania encountered before and after the entrance in the European Union is the waste management related to an increasing generation and the necessity to comply with the European directives. An important requirement regards the reduction of the amounts of landfilled biodegradable material. Where landfilling is widely used, the most serious environmental problems, both for Romania and for the other countries, are connected to the biogas and leachate production in the landfill and the related pollution. The present paper wants to study some options (pressing, anaerobic digestion, bio-stabilization) for the treatment of municipal solid waste before landfilling in sanitary landfills. Data regarding mass, volume, energy and environmental balances are presented. Taking into account the local requirements additional scenarios can be analyzed in order to increase/modify the information available for the decision makers.

Key words: anaerobic digestion, bio-stabilization, landfilling, municipal solid waste, pressing

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