

ANALYSIS MSW FRACTION AFTER SEPARATION WITH GOAL TO HAVE SOLID RECOVERY FUEL

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Abstract

The increase in prosperity and quality of human life, as well as economic development has caused an increase for waste generated.

Resource consumption, waste generation and the related CO₂ emissions are some of the most critical environmental problems, which are also related to sustainable development. Countries of the European Union (EU) have agreed to reduce the amount of waste put to landfills and increase the amount targeted for regeneration and reuse. Moreover, the EU has set waste reduction as the main goal for waste management policy. In recent years, there is great interest in waste incineration not only in EU, but also in other countries in the world. The reasons for increased interest are related to several factors that include increase in the waste amounts generated, lack of landfill space, and depletion of fossil energy sources, minimization of CO₂ emissions, and minimization of dependence on imported energy sources.

In this abstract show the results of studies of the composition of waste, which are sorted at the Kaunas MBT waste processing plant. Separated municipal waste are sent for incineration. The paper presents the analysis morphological composition of wastes that are sent for incineration. Based on the results of the study, it is possible to calculate the amount of waste that can be used as solid recovered fuel at enterprises of the energy complex and at cement plants.

Waste-to-Energy plants burn household and similar waste that could not be prevented or recycled. From this waste the plants generate energy. This can be in the form of steam, electricity or hot water. Waste-to-Energy is a hygienic method of treating waste, reducing its volume by about 90%. It turns the non-recyclable waste into secure energy and valuable raw materials in an environmentally safe manner. Waste-to-Energy helps reach the targets set in the EU Landfill Directive that aims to reduce the amount of waste being land filled (Benefits of diverting waste from landfills).

Keywords: municipal solid waste (MSW), separation, fuel, refuse derived fuel (RDF), solid recovery fuel (SRF), moisture, volatile matter, fixed carbon, ash content.