

THE PROBLEM OF UTILIZATION OF SOLID DOMESTIC WASTES

Solid domestic wastes are food and household items which are unsuitable for further use. They include the following: paper, cardboard, food wastes, wood, metal, textiles, bones, glass, leather and rubber, plastics, garbage and other.

Solid domestic wastes management includes collection, transportation, disposal, decontamination and recycling. The most common in Ukraine are waste disposal at polygons and landfills, composting and incineration.

Solid domestic wastes can be recycled at waste treatment plants. Their main task is decontamination of solid wastes and recycling of decontaminated components for further utilization. At the waste recycling plant we can get such valuable components: ferrous and nonferrous metals, glass, plastic, raw materials for cardboard factories and products of pyrolysis, heat and organic fertilizers.

At waste incineration plants made the thermal elimination of wastes, as a result - heat and ferrous metals are removed from the wastes. The method of waste disposal at waste incineration plants has the following disadvantages: need high temperature; produce large quantities of gases which have to be cleaned; produce large quantities of sludge and ash. Use of pyrolysis without access of oxygen at waste incineration plants is effective. The products of pyrolysis - resin, solid carbon residue found practical application.

In a year Ukraine produces about 13 million tons of household wastes. The country has 6.7 thousand landfills and polygons, of which 39% of the total is not certified. Only in 1.7% of the total number of settlements the separate collection of wastes has been introduced. In Ukraine there are two waste incineration plants - in Kiev and Dnipro. Their common achievement is processing of 6% of the total volume of solid domestic wastes of country. The plant "Energy" (Kiev) burns about 200 thousand tons of solid domestic wastes per year, but it has no required cleansing filters, as a result of 900 tons of toxins and other harmful substances get into the air. In Dnipro are burned 140 thousand tons of solid domestic wastes each

year, but residues (products of combustion) from 60 to 70 thousand tons of pollutants fall into the soil and pollute the environment.

Separately for solid domestic wastes there is a "Program of management of solid domestic wastes" in Ukraine. This document contains information about the current state of sphere of solid domestic wastes management and prospects of development of waste utilization in Ukraine. Because of the volume of wastes accumulated in Ukraine, it can be attributed to one of the most technogenous-loaded countries in the world. In the experience of waste management Ukraine is for a few decades behind of the developed countries of Europe. Among the results of this program were expected: reduction of solid domestic wastes impact on the environment and human health; reduction of volume of wastes dumping; transformation of sphere of solid domestic wastes management on self-sustainable and profitable branch of utilities. Unfortunately, this program has not done yet, even though it was calculated till 2011.

Ecological policy of some Western countries is extremely effective and can serve as an example for our country. Utilization of solid domestic wastes is one method of improving the quality of the environment. It is very important for significantly urbanized areas, where large amounts of wastes are produced and their warehousing is quite problematic both because the allocation of sites for landfills and because of their negative impact on the environment.

In many developed countries in Europe, such as Switzerland, Germany, Finland, a system of coloured containers for sorting wastes are used. It allows to optimize recycling at the initial stages. In these states there is active cooperation of the government and the public, a system of environmental taxation was established. An important component in utilization of wastes is cooperation with business structures. As a result, these countries is recycled large amounts of wastes, recycling became a separate branch of industry and brings revenue.

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