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THE ORGANIZATION INVOLVED IN THE PRODUCTION OF INDUSTRIAL ENTERPRISES OF THE PARTICIPATING COUNTRIES OF THE EAEC SECONDARY MATERIAL RESOURCES ON THE PRINCIPLES OF LOGISTICS

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The use of secondary material resources is a significant factor of economy of material resources in the national economy. A major role in the expansion of the scope of waste production is the correct definition of current and capital expenditures on the waste. It is important to understand that the generation of waste. This is an inevitable process, so it is necessary introduction of new resource-saving technologies and use of raw materials.

Production is a main source of goods necessary for human life, to satisfy its needs. Material production is the basis of existence and development of human society. The aim lies in promoting economic growth, employment, stabilization of prices, the fair distribution of income, the economic security of the poor and improving the quality of life in general.

One of the effective tools of increasing the effectiveness of companies is a logistics management concept. Many companies seek to optimize the management of their supply chains and create added value in the process of movement of goods to the final consumers. Currently, supply chain management is a holistic concept of doing business that combines organizational principles and possibilities of modern information technologies.

One of the key areas of supply chain management that causes more and more interest is reverse logistics. Return logistics is an important function of the supply chain and requires a special relationship with the company and its logistics management. The scale of the return logistics on a global scale is huge. Reverse logistics costs accounted for 4 – 6% of the total logistic costs [4].

Availability of resources is a prerequisite for sustainable economic development and quality of life for present and future generations. Extensive growth of resources consumption (many of which are non-renewable) already has resulted in a certain dependence on raw materials of the economy of many subjects the Republic of Belarus, and to the exacerbation of environmental problems associated with the impact on the environment as a result of extraction of raw materials, production and recycling of waste. Formation of Belarus as a technologically advanced country, integration into the world economy will be impossible in today's legal and economic area without finding ways of effective and environmentally sound management of natural and man-made resources. This problem can be solved by creating a low-waste closed cycle, and also through encouragement and technical support of complex use of secondary resources that are formed in the processes of production and consumption.

Waste generation – this is inescapable process that inevitably accompanying human activity.

In the extraction of natural raw materials, in the manufacture of a product, then its consumption generate waste production and household consumption: packaging waste, worn out clothes and shoes, used batteries, galvanic cells and fluorescent lamps, as well as lost consumer properties of furniture, appliances and household equipment, decommissioned houses and industrial buildings, industrial equipment, motor vehicles, electrical and radio engineering, waste oil and process fluids. A significant amount of waste is generated in wastewater treatment plants - both in manufacturing and in the utilities sector of the economy.

Currently, world cities generate about 1.3 billion tons of solid waste per year. This volume is expected to increase to 2.2 billion tons by 2025. Waste generation rates will more than double over the next twenty years in lower income countries. Globally, solid waste management costs will increase from today's annual $205.4 billion to about $375.5 billion in 2025. Cost increases will be most severe in low income countries (more than 5-fold increases) and lower-middle income countries (more than 4-fold increases) [6].

As the world hurtles toward its urban future, the amount of municipal solid waste (MSW), one of the most important by-products of an urban lifestyle, is growing even faster than the rate of urbanization. Ten years ago there were 2.9 billion urban residents who generated about 0.64 kg of MSW per person per day (0.68 billion tons per year). This report estimates that today these amounts have increased to about 3 billion residents generating 1.2 kg per person per day (1.3 billion tons per year). By 2025 this will likely increase to 4.3 billion urban residents generating about 1.42 kg/capita/day of municipal solid waste (2.2 billion tons per year) [6].

The problem of rational nature management includes protection against pollution of waste production and recycling of secondary material (SMR) and secondary energy resources (SER). The ideal would be to organize production so that across the state were mainly SMR and SER, as the raw material would go only to replenish losses and the expansion of production.

One of the fundamental principles of modern design companies is greening technologies. It includes:

1) improvements in terms of ecology existing technological processes;

2) the creation of low-waste (waste-free) production;

3) cleaning of emissions, effluents, solid waste disposal.

In the context of this research is to broadly inform about economically and environmentally sound technologies for waste management, about the directions of the industry formation of the complex multilevel waste recycling, including the use of their raw materials and energy resource.

At present only 2% of raw materials becomes necessary for human products, all the rest becomes waste, some of which are toxic [1]. So now, when the danger of environmental catastrophe has increased in the process of production began to include a new stage disposal and recycling of production wastes and consumption with a view to their reuse, it is possible to close the logistic chain and gave rise to reverse logistics.

Reverse logistics is a movement control system waste generated in the production process, packaging or distribution, in order to increase the efficiency of environmental protection and optimization of the associated costs [2]. The object of reverse logistics is the reverse flow of secondary material resources which, after appropriate processing placed on the market of recycled materials and can be reused in the production process.

The use of secondary material resources is a significant factor in economy of material resources in the whole economy of the country.

The expansion of the scope of the use of waste products plays an important role proper definition of current and capital expenditures for the waste and, therefore, the pricing on them. Of great importance are the organizational issues, that is: establishment of the responsibility for the collection and processing of used industrial and consumer waste. These problems become particularly acute in view of the fact that the secondary material resources obtained in almost all spheres of human activity. The total volume of their formation is a year per capita exceed the ton [3].

If we talk about the use of production waste, they are forming in a single industry, as a rule, are the raw materials for other industries. Industry, where the waste is produced, should coordinate its work on the collection, storage and processing of waste from other industries, which is interested in the recycling of this waste.

Given the need to find new material resources to solve the problems of improving the ecological situation and the conditions dictated by external economic activity, the use of waste production and consumption should be one of the basic principles of the state industrial policy.

Currently, in the Republic of Belarus No businesses that recycle waste products, and create of them are new product. Therefore, any domestic enterprises can be applied various strategies of foreign companies.

For example, to offer customers the money back if they return the packaging made of glass, plastic and metal. When buying a product in such a package to its price added a small sum for which the package is returned to the point of its production.

Another method of increasing the use of secondary resources is a ban on the burial of certain materials as waste, such waste may include waste oil, old batteries, tires and garden waste. The purpose of this method is to create a policy for the proper disposal of banned products.

In Austria, collected and disposed of such waste as cooking oils. These wastes are used to produce biodiesel. Glycerol obtained as a by-product is used as biogas, or it is purified and sold as raw materials for the chemical, pharmaceutical and cosmetic industries.

In addition to the above, it is possible to introduce the principle of producer responsibility for manufactured products, that is, the manufacturer is responsible for the collection and disposal of produced products and regulate them, as the collected waste must be used (recycled and / or recovered). It stimulates manufacturers to produce resource-saving products that are easier to recycle and contain no ecologically dangerous substances.

The root of the garbage problem of the countries-members of the EAEC is not a constant increase in the volume of solid waste, and the inability to properly dispose of these wastes. Data available from the company "Russian Technologies" suggest that at least 40% of the accumulated waste in the country is a valuable secondary raw materials. However, the processing receives only about 7-8% of household waste, and trash the rest just transported to landfills. In Kazakhstan per capita to 2 tons of accumulated waste a year and recycling being only 3-5% of garbage [5].

World garbage the market today is estimated at about 120 billion dollars. In Russia, waste management, according to estimates from different companies, can bring from 2 to 3.5 billion dollars per year [5].

Today, the scope of investments in waste processing can be considered as very promising since high demand for secondary raw materials.

One of the major plastics processing companies in the Russian Federation is a factory "Plarus". The company operates in Solnechnogorsk since 2009. There bottles are first sorted by color, then washed and cut into

flakes and then melted into pellets from which the bottle can be done again (as well as helmets, basins, films, strings, tile, etc.). The technology, called "bottle to bottle" only in this plant, the only one in Russia.

Programs for recycling, often organized by local businessmen and environmentalists are already operating throughout Russia. For example, one of the companies in the city of Aramil of Sverdlovsk area buys results in waste mixed polymers of different types and makes of these benches. Separate collection is organized by entrepreneurs, for example, in Vladimir and Vologda.

In Moscow, some sports clubs hand over cups for recycling.

In Solnechnogorsk and Moscow, "Plarus" together with Coca-Cola launched a project "Give the bottle a second life" – within its framework throughout the city there are grids that you can throw the bottle.

It is also considered appropriate if the renovation or expansion of existing ones, as well as the design of new businesses will provide for the development of measures on the use of BMPs. The refusal of consumers from the use of secondary energy resources at both the existing and planned facilities can be justified only the expectation that confirms the ineffectiveness of economic or technical impossibility of using SMR.

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