

L. Dmytrenko, Student
O. Uvaieva, Dr. Biol. Sc, Prof., research advisor
S. Sukhovetska, Senior lecturer, language adviser
Zhytomyr Polytechnic State University

SEPARATE COLLECTION AND DISPOSAL OF WASTE AT “KROMBERG AND SCHUBERT UKRAINE ZhU LLC”

With the growing negative anthropogenic impact on the environment, the problem of formation, storage, disposal, transfer for disposal and reprocessing of waste as a secondary raw material at enterprises is becoming increasingly important. At the same time, to achieve waste-free production, the environmental protection and reduction of waste generation in the field of industrial waste management must be effective.

In accordance with Art. 35-1 of the Law of Ukraine "On Waste" (March 5, 1998 № 187/98-VR), owners or tenants, users, including tenants of sources of household waste, provide separate collection of household waste. This requirement of the legislation is more often addressed to ordinary citizens who must sort their waste. However, household waste is generated not only at homes but at the enterprise as well.

In Zhytomyr, there is a positive example of sorting waste at “Kromberg & Schubert Ukraine ZhU enterprise”. The main activity of this enterprise is manufacturing of electrical and electronic equipment for motor vehicles. The plant has been operating in Zhytomyr since September 2015. Today there are about 4,000 employees at the enterprise.

In total, there are more than 30 “Kromberg and Schubert” companies worldwide today. Eight of them are in Germany. In addition, “Kromberg and Schubert” has companies in Romania, Poland, Switzerland, Portugal and Mexico, which employ more than 35,000 people. The company produces equipment for the most popular European car manufacturers, such as Volkswagen, BMW, Mercedes, Audi.

The aim of the work is to analyze the separate collection and disposal of waste at the enterprise "Kromberg & Schubert Ukraine ZhU". Today “Kromberg & Schubert Ukraine ZhU” manufactures cable networks for cars and equipment for electric machines. The administration of the plant understands the importance of separate waste collection in order to reduce its generation and, as a result, reduce the negative impact on the environment and human health.

The scheme of "separate collection" involves the collection and sorting of solid waste at the beginning of its formation. Storage and sorting of waste in the disposal process are the most responsible stages. To do this, special containers which differ in color for the separation of solid waste into separate fractions are installed in the designated areas. Rubbish is sorted at the enterprise by six types: copper wires and cables waste, i.e non-ferrous metals; paper and cardboard; high and low pressure polyethylene; industrial and household plastic; food waste; tape.

The plant has a specially designated workshop, where such waste as cardboard, skeins of polyethylene and even container with plastic cups is collected. The process is almost completely automated; waste is loaded and transported 2-3 times a week.

Employees of the company also dispose of batteries, which are first collected in a special container. Batteries, depending on their type, contain heavy metals and hazard

rious elements (zinc, manganese, cadmium, nickel, lead, acids, and alkalis). In the environment, one finger battery contaminates 20 m³ of soil or 400 liters of water. Therefore, of course, batteries cannot be thrown into the trash, they need to be collected in special containers.

“Kromberg & Schubert Ukraine ZhU” cooperates with various companies that buy waste. The money received from the sale of waste is returned to the company and used for social projects for its employees, including excursions, chess and football schools for children, etc.

The company exports only 5-10% of waste to Zhytomyr city landfill for solid waste disposal. The landfill is located near the plant on the northern outskirts of the city (29, Andriyivska Street). Its territory is 22 hectares.

When sorting waste, the plant complies with the requirements of the international standard DSTU ISO 14001: 2006. The general purpose of this standard is to promote environmental protection and pollution prevention, taking into account socio-economic needs. DSTU ISO 14001: 2006 establishes requirements for the environmental management system to enable organizations to formulate and implement enterprise policies in the field of environmental protection and to establish and achieve goals that take into account legal requirements and information on significant environmental aspects.

REFERENCES

1. <http://www.eco-bukovina.com.ua/activity/permitting-and-licensing/item/152>
2. Горох Н.П. Проблемы и перспективы комплексной утилизации твердых бытовых отходов в Харьковском регионе. В сб. «Утилизация и переработка ресурсно-ценных бытовых и промышленных отходов». Материалы «Круглого стола», г. Харьков 2001. С.21-31
3. <https://zakon.rada.gov.ua/laws/show/z0824-08#Text>
4. <https://zakon.rada.gov.ua/laws/show/187/98-%D0%B2%D1%80#Text>
5. <https://www.zhiva-planeta.org.ua/diyalnist/vidhody.html>