

# POLICY BRIEF "HAZARDOUS WASTE MANAGEMENT, THE UKRAINIAN WAY"

### Hazardous waste in Ukraine instead of being recycled enters the environment

About 600 thousand tons of hazardous waste is generated in Ukraine annually. These include worked out fluorescent lamps, motor oils, batteries, unfit and expired pesticides, pesticide packaging, medical waste and others. In European countries, this waste is safely generated, recycled, neutralized and disposed of, but in Ukraine it happens in a different way.

Most of the hazardous waste in Ukraine is found in landfills, along the roads, rivers, and in tree belt areas. Thus, worked out fluorescent lamps containing mercury, were found near Zmitniv village of Chernihiv region and the town of Chyhyryn of Cherkasy region<sup>1</sup>, near private houses of the village of Malekhiv in Lviv region <sup>2</sup>. Plastic containers with pesticide residues were found by local dwellers in the village of Chervona Sloboda, which is in 1.5 km from Cherkasy. This hazardous waste was being dumped there and burned<sup>3</sup>. Hazardous medical waste in labelled containers, with the names of laboratories and operating departments, which formed this waste, and also with documents on the transfer of medical waste by medical institutions to licensed enterprises, was found in a forest near one of the villages of Kyiv region<sup>4</sup>. And this is only a small number of facts that journalists and environmentalists reveal in their investigations.

## A danger to the environment and public health due to improper hazardous waste management

Hazardous waste, instead of being recycled, detoxified or disposed, get into the environment, causing terrible consequences. Worked out fluorescent lamps, which get into a landfill, are being crashed and mercury evaporates from them. Mercury has a negative effect on the nervous system, genitals, embryos, it can cause developmental defects and hereditary changes. Mercury accumulates in the human body, it is not being removed from it and destroys brain cells<sup>5</sup>.

One compact fluorescent lamp contains on average 4 mg of mercury, and long fluorescent lamps, which are used mainly at the enterprises, medical and educational institutions, contain up to 150 mg of mercury. While the dose of 0.25 mg is already dangerous for humans. Statistics indicate that 40 kilograms of mercury are being released into the environment in Ukraine annually, which undoubtedly factors into air pollution<sup>6</sup>.

Agricultural enterprises indiscriminately use pesticides to control weeds, insects, rodents. Pesticides containers are transferred to specialized enterprises (licensees) for processing, neutralization or utilization. In the case when, instead of processing, containers with pesticide residues are put out into the environment, water, soil and air are polluted with hazardous chemicals. Pesticides are able to spread for thousands of kilometres in the environment, they are transmitted from mother's milk to children, they are found even in the fatty tissues of penguins. At a meeting of the United Nations Council on human rights in March 2017, international experts said that pesticides kill 200,000 people every year, they cause hormonal disorders, developmental disorders and infertility, Alzheimer's and Parkinson's, and even cancer<sup>7</sup>.

As we know, cancer is one of the greatest threats of modern society and it is actively progressing. According to the National Cancer Registry of Ukraine in 2016 135,714 new cases of malignant

<sup>1 &</sup>quot;A waste dump of worked out fluorescent lamps was found near the village of Zmitniv", 10/19/2016, online edition "Chernihivshchyna": events and comments:  $\underline{\text{http://pik.cn.ua/23963/bilya-sela-zmitniv-znaydeno-zvalishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-lyuminestsentnih-lamp/linearishche-vidpratsbovanih-vidpratsbovanih-vidpratsbovanih-vidpratsbovanih-vidpratsbovanih-vidpratsbovanih-vidpratsbovanih-vidpratsbovanih-vidpratsbovanih-vidpratsbovanih-vidpratsbovanih-vidpratsbovani$ 

<sup>&</sup>quot;A dump of fluorescent lamps was found in Cherkasy", 11/22/2016, Internet edition depo.ua: http://poltava.depo.ua/ukr/cherkasy/u-cherkasah-znaydenozvalishche-lyuminestsentnih-lamp-22112016094400

<sup>&</sup>quot;Ecological crime in the capital", 2016/03/11, the Internet edition of LLC "TV studio" Information Service "(NTN): http://ntn.ua/uk/video/news/2016/03/11/20410" 2 "How shrewd businessmen make money on hazardous wastes" the web page of the news char <a href="https://24tv.ua/yak\_spritni\_pidpriyemtsi\_zaroblyayut\_na\_pererobtsi\_nebezpechnih\_vidhodiv\_n867459">https://24tv.ua/yak\_spritni\_pidpriyemtsi\_zaroblyayut\_na\_pererobtsi\_nebezpechnih\_vidhodiv\_n867459</a>
3 "A hectare of herbicides and pesticides was found near Cherkasy", a news release "Today": <a href="https://www.youtube.com/watch?v=4rtWaxSAeug">https://www.youtube.com/watch?v=4rtWaxSAeug</a>

<sup>4 &</sup>quot;A landfill of medical waste was found in the forest in Kyiv region", the release of TNS news: https://www.youtube.com/watch?v=AnJd7mba1R8

<sup>&</sup>lt;sup>5</sup> "Fluorescent lamps", 2013/04/23: http://bei-lamps.blogspot.com/2013/04/blog-post.html

http://vgolos.com.ua/articles/groshi\_z\_elektronnogo\_smittya\_ukrainski\_mrii\_ta\_ievropeyski\_realii\_150937.html
 "UN human rights experts call for global treaty to r regulate pesticides": dangerous http://www.un.org/apps/news/story.asp?NewsID=56311&Kw1=pesticides&Kw2=&Kw3=#.WjvOPIWWapp

neoplasms were registered. The number of deaths in 2016 was 66,067 people<sup>8</sup>. The proper handling of expired pesticides and their containers will allow to save human lives.

A vast danger to human health comes from improper handling of medical waste. According to WHO, 20% of the total waste, generated in medical institutions, are considered hazardous. This waste may be infectious, toxic or radioactive. These include dressing material, disposable syringes and systems, gloves, gowns, X-ray films, contaminated blood, etc. Medical waste is a source of potentially dangerous chemicals, microorganisms, bacteria, among which the causative agents of HIV infection, tuberculosis, salmonella may be, that initiates risk of infection in the population<sup>9</sup>.

### The reasons of environmental pollution by hazardous waste

### 1) Inefficiency of state control in the field of hazardous waste management

The license, which gives an enterprise the right to operate with hazardous waste, is issued by the Ministry of Environment and Natural Resources of Ukraine. It is also authorized to monitor compliance with the license conditions. Such a dualism of authority is the cause of subjectivity in conducting an audit by the Ministry. After all, if the Ministry of Natural Resources accidentally or intentionally does not reveal any violations of the law when issuing a license, it will not indicate such violations when carrying out planned or unscheduled control, because in this case the Ministry of Natural Resources should actually admit its own mistake. The current license gives an enterprise the right to continue its business activities on hazardous waste management, and only the Ministry of Environment can revoke it, as a result of which we get a vicious circle.

The necessity to obtain sanction for an unscheduled inspection from the State Regulatory Service of Ukraine also complicates the situation. The procedure for obtaining such sanction is quite lengthy and does not always have a positive result. Consequently, inspection can take place when it is not possible to reveal a causal link between the violation of the law and the caused harm.

Since 2015, the State Regulatory Service of Ukraine received from the Ministry of Natural Resources 16 letters (applications) in total on the coordination of unscheduled inspections, 5 of which, under paragraph 4 of Part 9 of Art. 19 of the Law of Ukraine "On licensing types of economic activity" - a reasonable applications of an individual or legal entity that as a result of a licensee's violation of licensing conditions, such a person suffered material damage or his/her legal rights or interests were violated. The State Regulatory Service of Ukraine permitted the unscheduled inspections only for 4 of them. One of the applications for the inspection was sent to the Ministry on 2016/09/06. The request of sanction the inspection was sent from the Ministry to State Regulatory Service on 2016/09/13. The permission of the State Service of Ukraine was given on 2016/10/27. Thus, more than 4 months passed since the application of the citizen about the inspection.

It should be mentioned that in Poland the issuance of permissions for the hazardous waste management and monitoring of compliance of them are distributed between two different authorities. Thus, the Marshalok of the Voivodeship issues a permission, while the Inspector of the Environment Protection controls it. At the same time, no approvals for an unscheduled inspection are required, since the purpose of the latter is to respond promptly to identified violations of the law.

2) The Ministry of Environment does not control the availability of material and technical base when issuing a license and change of the actual place of activity of an enterprise

http://www.ncru.inf.ua/publications/BULL\_19/PDF/03-06-vstup.pdf

9 "Medical waste: WHO recommendations ", Aydyn Salmanov, A Journal of a Head Nurse No. 4. 2015/ July-August/: <a href="http://zarifacenter.org/articles/article244.pdf">http://zarifacenter.org/articles/article244.pdf</a>

<sup>8 &</sup>quot;Morbidity and mortality from malignant neoplasms; a situation of oncological assistance to the population of Ukraine in 2016-2017"

When issuing a license, the Ministry of Environment does not have the authority to check whether the material and technical base declared by the enterprise is available at the place of business. It only establishes the documentary fact of the availability of such equipment, which may not be true. Thus, there are quite a few enterprises in the market of hazardous wastes that are completely unable to guarantee the proper handling of hazardous wastes.

In addition, according to the current procedure, when the actual place of activity of the enterprise changes, the latter only has to inform the Ministry of Environment within a month about such a change. However, such a deficiency letter does not guarantee that the company really intends to actually continue its activities in the field of hazardous waste management, using the necessary equipment. So, there are a lot of cases, when changing a place of business, an enterprise sells an existing material and technical base and uses a license previously issued to it only for document trading (participating in tenders, concluding contracts, signing report on services provided in the field of hazardous waste management, etc.).

According to the results of 102 enterprises inspected by the Ministry of Natural Resources in 2016-2017, it was established that more than 50% of them did not have the material and technical base stated in the documents. One third of the verified licensees were not found at all at the place of business as indicated in the licenses<sup>10</sup>.

It is worth remembering that conducting an inspection before issuing a license is not a novelty for Ukrainian legislation. So, the basis for issuing a license for the production of medicines, the import of medicines is the availability of an appropriate material and technical base. Compliance of the material and technical base with the established requirements and stated in the documents submitted by the applicant is subject to mandatory verification prior to issuing a license for each place of business<sup>11</sup>.

It is a common practice for the European Union as well to check the compliance of the conditions for doing business with the conditions of the permitting document. Thus, in accordance with the Directive on the landfill of waste, before the start of the waste disposal procedure at the landfill, the competent authorities check the waste site to ensure that it complies with the main conditions of the permit<sup>12</sup>.

# 3) Participation of intermediary licensees in tenders for the implementation of final operations for hazardous waste management

The so-called licensees-intermediaries, who have a license only for the collection, storage and transportation of hazardous waste, participate in the tenders for hazardous waste management. Such enterprises, without having a license for final operations (processing, neutralization, utilization, disposal), enter into a contract with a licensee who has such a license, however, knowingly without planning to transfer the generated waste. The contract for licensees-intermediaries is needed only for the opportunity to participate in a tender. As a result, intermediary licensees put a non-competitively low price and become winners of the tender. Thus, enterprises that actually have the necessary equipment and a license to carry out final operations are idle, and hazardous waste generated by intermediaries are released into the environment, or are stored for years in dubious warehouses.

### 4) Lack of accounting for hazardous waste and reporting on the results of operations

Nowadays there are only declarations of waste generation and a statistical report as the reporting documentation about waste management. The first is conducted by some waste generators (which Index of total waste generation ranges from 50 to 1000 units) and submitted to the regional state

<sup>12</sup> Directive 1999/31/EU of the European Parliament and Council of April 26, 1999 the landfill of waste

<sup>10</sup> https://menr.gov.ua/news/31660.html

<sup>11</sup> Decree of the Cabinet of Ministers of November 30, 2016 No. 929 "On approval of licensing conditions for the implementation of economic activities in the production of medicines, wholesale and retail trade of medicines, import of medicines (except active pharmaceutical ingredients)": https://goo.gl/fzmXic

administrations. The declaration contains information on the volume of generation, type of waste, class of hazard and recipient of such waste. However, many companies do NOT submit waste declarations, because they are not even aware of the existence of such obligation, and fines for not submitting of this declaration are paltry. The second reporting document is a statistical report according to the form No. 1 "Waste", which is submitted by both waste generators and the licensees. It is submitted to the state statistical authorities. This report informs about the volume of waste generated, the amount of waste transferred, the balance at the end of the year. The information about whom the waste is transferred to and for which operations is unavailable in the report.

Thus, the documentation above does not allow to track whom the enterprise transfers waste to, or has the latter received such waste and for what operations. Consequently, it is not possible to track the movement of waste from the generators to the final licensee. That is, in Ukraine nobody knows what happens consequently with hazardous waste.

An effective way to record waste operates in Poland. Thus, when transferring hazardous waste to another person, the entity is required to draw up a waste move report. The latter consists of an appropriate number of copies, one for each waste receiver. The person receiving the waste must confirm their acceptance in the waste move report immediately after receiving it.

There is no also public register in Ukraine that would contain information on each enterprise regarding the volumes of waste generation, its transfer to the licensees, information about the enterprises that accepted the particular waste, the final licensee and operations that were conducted with the waste.

### 5) Lack of the arguments for revocation of a license

All arguments for revocation of a license relate mainly to violation of licensing requirements. However, violation of environmental legislation sometimes is more harmful to the environment and health than, for example, violation of the obligation to keep the original document confirming payment for the license issue or violation of the period for informing the licensing authority of all changes in data (including decrease of types of activity and hazardous wastes list) noted in the documents attached to the application for obtaining a license.

In addition, the arguments for revocation of a license are formulated incorrectly. Thus, some of them are: a report of non-compliance with the order on removal of violations of licensing conditions, a report on repeated violation of licensing conditions, a report on identifying false information, a report on refusal in conducting inspection. However, the aforementioned is in fact a method of registering certain violations, the requirements for which must be established by law, which must be the arguments for revocation of license themselves.

### 6) Inefficiency of administrative and criminal liability

There are low penalties for violation of law in the field of waste management in Ukraine, which do not fulfil the obligations of business entities and do not perform a preventive function. Thus, for non-compliance with the rules for handling hazardous waste, a person may be brought to administrative responsibility under Art. 82 of Administrative Violations Code of Ukraine "Violation of requirements for waste management during their accumulation, transportation, storage, processing, utilization, neutralization, disposal or landfilling."

As you can see, this article does not specify activities in the field of hazardous waste management, which is a great drawback. Hazardous waste carries a greater public danger because of its properties than, for example, domestic waste. Thus, the penalties for violation of operations when dealing with hazardous waste must be heavier.

The responsibility under the Administrative Violations Code for actions committed by a legal entity are incurred only by its employee. Although in most cases, it is the company itself that receives the benefit when it saves on compliance with environmental protection measures. Therefore, violation of the law by the legal entity will not cease because of the punishment of an employee.

The provisions requiring criminal liability in the field of waste management also require revision. All articles that relate to violations of the rules of waste management are connected with the harm to the environment (pollution of air, water, soil), as well as human life and health. Due to ineffective state control, it is difficult to prove such a causal link. In addition, the responsibility of licensees, who are required to comply with additional requirements, established by the license conditions, is not specified.

### Summary

Taking into account the above, the hazardous waste management in Ukraine is a matter of serious concern. There is no balance between the interests of the society, the environment and the interests of business circles in our country. When enterprises without technology continue to make money on hazardous waste, the quality of the environment and our living conditions are seriously deteriorating.

The legislation in the field of hazardous waste management, as well as in the field of environmental protection generally, is not aimed at preventing problems related to the protection of the right to live in a safe environment. The situation is also complicated by the lack of proper control and supervision in this area. The lack of clear legislation that would guarantee activity on the market only for those enterprises that are really able to secure the proper hazardous waste management, the declarative nature of many norms, and inadequate enforcement keep our country away from membership in the European Union. However, the creation of proper and decent living conditions, ensuring a safe environment should not be based only on the obligations incurred by our state in accordance with the Association Agreement. Such an obligation of the state first of all follows from the Constitution of Ukraine, according to which an individual, his/her life and health are acknowledged as the highest social value. However, this situation is defeated if the state does not guarantee that the formation, accumulation, transportation of hazardous waste, as well as its storage and processing, are carried out in conditions that ensure the protection of the environment and human health.

### Recommendations

To solve the problem of improper treatment of hazardous waste, we recommend:

- 1. To differentiate the authority of issuing a license for hazardous waste management and monitoring compliance with license conditions.
- 2. To prohibit the participation of intermediary licensees in tenders for final hazardous waste management operations.
- 3. To provide the obligation of the Ministry of Environment to verify the availability of the material and technical base before issuing a license and in case of change in the actual place of the enterprise's activity.
- 4. To introduce the record keeping of hazardous waste and reporting on the results of the operations. To create a public electronic register of enterprises in the field of hazardous waste management.
- 5. To expand the grounds for revocation of a license stipulating among them violation of the environmental law.
- 6. To reform the system of administrative and criminal liability in the field of hazardous waste management.