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## CONCEPTUAL APPARATUS OF TREATMENT OF SAFE WASTE IN THE FIELD OF THEIR DISPOSAL AND WITHIN THE FRAMEWORK OF IMPLEMENTATION OF EU LEGISLATION IN UKRAINE

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Abstract. In Ukraine, the conceptual apparatus of municipal waste management in the field of their disposal has shortcomings, and in the framework of the implementation of EU legislation in Ukraine, new terms appear, which make their adjustments. This leads to uncertainty, ambiguity, discrepancy and misuse of concepts by waste actors, scientists, authors and more. To begin reforming the waste system, it is necessary to clarify the shortcomings of the past conceptual framework and clearly form an understanding of the new.

This study is designed to analyze the conceptual apparatus of safe waste management in the field of disposal and in the implementation of EU legislation in Ukraine, namely the terminology before and after waste management reform, finding common and divergent, identifying shortcomings in interpretations and own vision of such definitions.

In writing this article used a theoretical method, a method of studying regulatory and instructional documents, synthesis, analysis, comparison, grouping. The theoretical basis was the work of Ukrainian scientists, graduate students, the regulatory framework of Ukraine and the EU in the field of waste.

At the end of the study, four groups of terms were formed, each of which clarifies the pros and cons of defining the terms, as well as suggested ways to improve the conceptual framework for safe waste in the field of disposal and implementation of EU legislation in Ukraine. *Keywords.* Conceptual apparatus, term, waste, landfill, implementation of EU legislation.

**Topicality.** The field of municipal waste treatment in the field of their disposal has many terms that together make up the conceptual apparatus and are the basis for the start of any work. Today in Ukraine large-scale work on adaptation of the legislation of Ukraine to the EU legislation is carried out. The key document that defines the main directions of adaptation of Ukrainian legislation to the legislation of the European Union is the «Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their Member States, on the other hand». This Agreement provides for the adaptation of national legislation of Ukraine to EU law in many areas. One of such areas is the area of waste and resource management, which is defined in paragraph «e» of art. 361 of the said Agreement. Undoubtedly, it concerns the management of all types of waste, including household waste and makes changes to the existing conceptual apparatus [1].

The presence of the old terminological base with its shortcomings and the emergence of new terms, the use of different terms in regulations, which mean the same concepts. This leads to uncertainty, ambiguity, discrepancy and misuse of concepts by waste actors, scientists, authors and more. This situation requires a study to determine the conceptual apparatus of municipal waste treatment in the field of landfill in the implementation of Ukrainian legislation to EU law.

Analysis of recent research and publications. The topic is related to waste, the degree of compliance of regulations on waste management in Ukraine with world and in particular European standards has been the subject of research by many Ukrainian researchers, in particular: V. I. Andreitsieva, H. I. Baliuk, L. O. Bondar, A. P. Hetmana, T. H. Kovalchuk, M. V. Krasnovoi, E. V. Pozniak, T. O. Tretiaka, Yu. S. Shemshuchenko, M. V. Shulhy, R. I. Baitsar, Kh. I. Depko and others.

An important contribution to the development of this topic was made by graduate students: M. V. Fedun, Yu. V. Vdovych and V. O. Yureskul.

The aim of the study. Defining the conceptual apparatus of safe waste in the field of their disposal and in the framework of the implementation of EU legislation in Ukraine.

Materials and methods of research. In writing this article used a theoretical method, a method of studying regulatory and instructional documents, synthesis, analysis, comparison, grouping. Theoretical was used in the study of works of scientists in this field. The method of studying normative and instructive-methodical documents was the main way to obtain basic information for the study. Synthesis and analysis were used to understand terms, identify the structure of interpretation of concepts, inaccuracies in the definition, and others. The method of comparisons was used to analyze several definitions of the same term from different legal acts, as well as definitions from Ukrainian and European legislation. By grouping, a division of terms by topic was created to structure the study.

The theoretical basis was the work of Ukrainian scientists, graduate students, the regulatory framework of Ukraine and the EU in the field of waste.

**Research results and their discussion.** As part of the study of the conceptual apparatus of municipal waste treatment in the field of their disposal in the implementation of Ukrainian legislation to EU legislation, the following terms were analyzed, which can be divided into four groups.

1. Waste disposal facilities: landfill (polihon pobutovykh vidkhodiv (polihon)), landfill (smittiezvalyshche), unauthorized (spontaneous) landfill (nesanktsionovane (stykhiine) smittiezvalyshche), regional landfill (rehionalnyi polihon), waste management facilities (obiekty povodzhennia z vidkhodamy), waste management facility (obiekt upravlinnia vidkhodamy).

2. Waste operations: waste treatment (obroblennia vidkhodiv (obrobka)), waste disposal (liquidation) (vydalennia (likvidatsiia) vidkhodiv), waste disposal (zakhoronennia vidkhodiv).

3. Type of waste: solid household waste (tverdi pobutovi vidkhody), municipal waste (munitsypalni (miski) vidkhody), household waste (pobutovi vidkhody), waste infrastructure of the settlement (vidkhody infrastruktury naselenoho punktu), safe

waste (non-hazardous waste) (bezpechni vidkhody (vidkhody, shcho ne ye nebezpechnymy)).

4. Waste management: waste management (povodzhennia z vidkhodamy), waste management (upravlinnia vidkhodamy).

Now consider each group of terms separately. Let's start with waste disposal facilities. Different terms are used in the regulations and not all of them have an official definition. According to Draft Law of Ukraine «On Waste Management» «the landfill (polihon) is a place of waste disposal intended for their placement on the surface or in the ground (underground)»[2]. According to Order «On approval of the Rules of operation of landfills», a «landfill (polihon pobutovykh vidkhodiv) is an engineering structure that is designed to dispose of household waste and must prevent negative impacts on the environment and comply with sanitary-epidemiological and environmental standards»[3]. The definition of Order «On approval of the Rules of operation of landfills» is, firstly, more complete, and secondly, the landfill is primarily an engineering structure, not just a site, as noted in Draft Law of Ukraine «On Waste Management».

The term «landfill» (smittiezvalyshche) is actively used in National Waste Management Strategy in Ukraine until 2030, Draft Law of Ukraine «On Waste Management», National waste management plan until 2030, «On approval of Methodical recommendations for the development of regional waste management plans» without having an official definition. According to the authors of the article, a landfill (smittiezvalyshche) is a place designed for waste disposal with partial compliance with construction, sanitary-epidemiological and environmental standards.

The term «unauthorized (spontaneous) landfill» (nesanktsionovane (stykhiine) smittiezvalyshche) is actively used in the regulations, but currently has no official definition. This term could be officially defined after its adoption by the Verkhovna Rada of Ukraine Draft Law of Ukraine «On Waste Management», but after some approvals, the term «unauthorized landfill» (nesanktsionovane smittiezvalyshche) was removed, the definition was as follows - «a place that is not set aside for waste disposal and where waste is accumulated illegally».

To increase the clarity of the formation of such terms as «landfill (polihon), landfill (smittiezvalyshche), unauthorized (spontaneous) landfill (nesanktsionovane (stykhiine) smittiezvalyshche)» the following structure is proposed (see Fig. 1).





The concept of «regional landfill» (rehionalnyi polihon) is new to Ukrainian legislation and it came to us with the signing Association Agreement between Ukraine, of the one part, and the European Union, the European Atomic Energy Community and their Member States, of the other part: Agreement: The European Union and approval National Waste Management Strategy in Ukraine until 2030. It does not need a separate official definition, because it is the same «landfill» (polihon) only with a larger scale of the service area. In the example National waste management plan until 2030, one regional landfill plans to serve 3, 4 administrative districts, including their district centers. This scaling is calculated by reducing waste disposal, which in turn reduces the number of landfills.

The terms «waste management facilities (obiekty povodzhennia z vidkhodamy), waste management facility (obiekt upravlinnia vidkhodamy)» have official definitions, which read as follows: «waste management facilities (obiekty povodzhennia z vidkhodamy) – places or facilities used for collection, storage, sorting, processing, recycling, utilization, removal, disposal and disposal of waste» [9, 10, 11]; «waste management facility (obiekt upravlinnia vidkhodamy) – an enterprise, installation or other facility intended for the collection, transportation and treatment of waste, including preparation for reuse, recovery and disposal» [2].

The second group consists of 3 terms. «Waste treatment (obroblennia vidkhodiv) – the implementation of any technological operations associated with changes in the physical, chemical or biological properties of waste, in order to prepare them for environmentally safe storage, transportation, disposal or disposal» [9, 11, 12]. According to Draft Law of Ukraine «On Waste Management» and [«On approval of Methodical recommendations for the development of regional waste management plans» «waste treatment (obroblennia vidkhodiv) is the implementation of operations for recovery or disposal of waste, including preliminary preparation for them»[2, 6]. According to Directive 2008/98/EU of the European Parliament and of the Council on waste and repealing certain Directives «treatment (obrobka) – disposal or liquidation, including preliminary preparation for them»[13]. This definition is identical to the previous one, only here the word «recovery» is replaced by «disposal» and «removal» by «liquidation» If in all definitions the term «treatment» included disposal or liquidation, then according to Council Directive 1999/31/EU on landfills only disposal. «Treatment (obrobka) - physical, thermal, chemical or biological processes, including sorting, that change the characteristics of waste to reduce its volume or hazardous nature, facilitate their treatment or increase recycling» [14]

«Waste disposal (vydalennia vidkhodiv) – carrying out operations with waste that do not lead to their disposal» [9, 15]. According to Draft Law of Ukraine «On Waste Management» and Directive 2008/98/EU of the European Parliament and of the Council on waste and repealing certain Directives, «waste disposal (vydalennia vidkhodiv) is an operation that is not waste recovery, even when one of the consequences of such an operation is the use of substances or energy»[2, 13].

«Waste disposal (zakhoronennia vidkhodiv) – the final placement of waste when disposing of it in specially designated places or facilities so that the long-term harmful effects of waste on the environment and human health do not exceed the established standards» [3, 9, 10, 11]. According to Draft Law of Ukraine «On Waste and «On approval of Methodical recommendations for the Management» development of regional waste management plans», «waste disposal (zakhoronennia vidkhodiv) is the placement of waste on the surface or in the ground, in a way that does not pose a threat to human health and the environment and does not involve their further treatment»[2, 6]. Council Directive 1999/31/EU on landfills provides a very detailed definition, «landfill (zakhoronennia) – a waste disposal site where waste is placed on the surface or in the ground (underground), including: internal waste disposal (ie a landfill where the waste producer places its own waste at the production site), and long-term disposal (more than one year) used for the temporary storage of waste, but excluding: facilities where the waste is disposed of in such a way that it can be further prepared for transport to another place for reprocessing, treatment or disposal in another city, and storage of waste before reprocessing or treatment, usually for a period of up to three years, or storage of waste before disposal for a period of up to one year»[14].

After analyzing the terms of the 2nd group, the structure of waste treatment was compiled (see Fig. 2).



\*a non-exhaustive list of waste treatment operations is given in the appendices 1, 2 [2, 13]

The next group of terms is «waste type». «Solid household waste (tverdi pobutovi vidkhody) – various types of solid objects and materials, except for containers (packaging), which have become unusable due to their use in the home and which are not food waste» [16]. Definition according to [«On approval of the Rules for the provision of services for the collection and removal of solid and liquid household waste» - «waste generated in the process of human life and activity and accumulated in residential buildings, social and cultural institutions, public, educational, medical, commercial and other institutions (food waste, household items, garbage, fallen leaves, waste from cleaning and current repairs of apartments, waste paper, glass, metal, polymeric materials, etc.) and have no further use at the place of their formation»[17]. According to State building norms V.2.4-2-2005 - «solid waste from the spheres of consumption, which are formed in the process of human life in residential buildings, social and cultural institutions, public, educational, medical, medical, which are formed in the process of human life in

commercial and other institutions (food waste, waste paper, glass, metals, plastics, polymers, etc.)»[11]. The term «municipal solid waste» (tverdi pobutovi vidkhody) is not used in modern waste management reform and EU legislation.

Consider the modern terminology of classification of waste that is allowed to dispose of if it is impossible to reuse or recover. «Hazardous waste (bezpechni vidkhody) – waste that is not regulated by Article 4 (4) of Council Directive 91/689 / EEC of 12 December 1991 on hazardous waste» [14]. That is, all wastes are safe except hazardous and inert («meaning wastes that do not undergo any physical, chemical or biological changes and transformations» [14]).

«The concept of municipal (munitsypalni (miski) vidkhody) waste means household waste and other waste, which by its nature or composition is related to municipal waste» [14]. The composition of such waste is shown in Fig. 3. according to [6, 2].



Fig. 3 Structure of municipal (municipal) waste

The last group of terms is «waste management». The terms «waste management (povodzhennia z vidkhodamy), waste management (upravlinnia vidkhodamy)» sound different, but by definition are identical and mean the following: «collection,

transportation, treatment of waste, including supervision of such operations and further care of waste disposal facilities» [2, 6, 13, 18]. There is also a variation of the interpretation to which the authors of the article are inclined - «actions aimed at preventing waste generation, collection, transportation, storage, treatment, disposal, disposal, disposal and disposal, including control of these operations and supervision of disposal sites» [9, 11, 19]. The latter definition is complete as it includes an element such as «waste prevention».

After analyzing the interpretation of all terms, a table is compiled.

# Table 1. Availability of official definitions of terms in the field of waste management

Term	The presence of an official definition	Source of official definition
Polihon pobutovykh vidkhodiv (polihon)	+	[3]
Cmittiezvalyshche	-	-
Nesanktsionovane (stykhiine) smittiezvalyshche	-	-
Rehionalnyi polihon	-	-
Obiekty povodzhennia z vidkhodamy	+	[9, 10, 11]
Obiekt upravlinnia vidkhodamy	-	-
Obroblennia vidkhodiv (obrobka)	+	[6, 9, 11, 12, 13, 14]
Vydalennia (likvidatsiia) vidkhodiv	+	[9, 13, 15]
Zcakhoronennia vidkhodiv	+	[3, 6, 9, 10, 11, 14]
Tverdi pobutovi vidkhody (TPV)	+	[11]
Munitsypalni (miski) vidkhody	+	[6, 14]
Pobutovi vidkhody	+	[6]
Vidkhody infrastruktury naselenoho punktu	+	[6]
Bezpechni vidkhody (vidkhody, shcho ne ye nebezpechnymy)	+	[14]
Povodzhennia z vidkhodamy	+	[9, 11, 18, 19]
Upravlinnia vidkhodamy	+	[6, 13]

**Conclusions and prospects.** To define the conceptual apparatus of safe waste treatment in the field of their disposal and in the framework of the implementation of EU legislation in Ukraine, four groups of terms were formed:

1) waste disposal facilities;

2) waste operations;

3) type of waste;

4) organization of the waste sphere.

The analysis of group 1 revealed that such «landfill terms as (smittiezvalyshche), unauthorized landfill (spontaneous) (nesanktsionovane (stykhiine) smittiezvalyshche» are very actively used in the regulations, play an important role in the typification of landfills in our reality and have no official definition. According to Draft Law of Ukraine «On Waste Management», the «landfill» (polihon) is planned to be treated only as a «site», and not as an «engineering structure», thus lowering the status of such an object.

The analysis of group 2 revealed a difference in Directive 2008/98/EU of the European Parliament and of the Council on waste and repealing certain Directives and Council Directive 1999/31/EU on landfills between identical terms «processing» (obrobka).

Interpretations of part of the terms of group 3, which were formed during the reform of waste management in Ukraine are quite clear, unambiguous and require only the implementation of the list of hazardous waste.

The last group of terms showed that before the reform the word «behavior» (povodzhenni) was used, and after - «management» (upravlinnia). According to the authors of the article «waste management» (upravlinnia vidkhodamy) is more appropriate, but the interpretation is incomplete.

#### References

1. Kravchenko M. H. (2017). Mekhanizm adaptatsii zakonodavstva Ukrainy do zakonodavstva YeS u sferi upravlinnia pobutovymy vidkhodamy: suchasnyi stan ta napriamy vdoskonalennia [Mechanism of adaptation of Ukrainian legislation to EU legislation in the field of household waste management: current status and areas for improvement]. Eurasian Academic Research Journal. c. Yerevan.  $N_{\rm P}$  9 (15). p. 55-64.

 Proekt Zakonu Ukrayiny «Pro upravlinnia vidkhodamy» [Draft Law of Ukraine
 «On Waste Management»]. (02.07.2019). Available at: http://w1.c1.rada.gov.ua/pls/zweb2/webproc4\_1?pf3511=67094.

3. Nakaz «Pro zatverdzhennia Pravyl ekspluatatsii polihoniv pobutovykh vidkhodiv» [Order «On approval of the Rules of operation of landfills»]. (01.12.2010). № 435. Ministry of Housing and Communal Services of Ukraine. Available at: https://zakon.rada.gov.ua/laws/show/z1307-10#Text.

4. Natsionalna stratehiia upravlinnia vidkhodamy v Ukraini do 2030 roku [National Waste Management Strategy in Ukraine until 2030]. (20.02.2019). № 820-2017-r. Available at: https://zakon.rada.gov.ua/laws/show/820-2017-%D1%80/ed20190220.

5. Natsionalnyi plan upravlinnia vidkhodamy do 2030 roku [National waste management plan until 2030]. (02.10.2019). № 117-2019-r. Available at: https://zakon.rada.gov.ua/laws/show/117-2019-%D1%80/ed20191002.

6. «Pro zatverdzhennia Metodychnykh rekomendatsii z rozroblennia rehionalnykh planiv upravlinnia vidkhodamy» [«On approval of Methodical recommendations for the development of regional waste management plans»]. (12.04.2019). № 142. Available at:

https://menr.gov.ua/files/docs/nakazy/2019/nakaz\_142.pdf?fbclid=IwAR1f60Q91oA 5K4TEo433HA3ee9F6XF\_DjuakQXJxDMdHvLKBAR1NRbFbtxs.

7. Uhoda pro asotsiatsiiu mizh Ukrainoiu, z odniiei storony, ta Yevropeiskym Soiuzom, Yevropeiskym spivtovarystvom z atomnoi enerhii i yikhnimy derzhavamychlenamy, z inshoi storony: Uhoda: Yevropeiskyi Soiuz [Association Agreement between Ukraine, of the one part, and the European Union, the European Atomic Energy Community and their Member States, of the other part: Agreement: The European Union]. (27.06.2014). Official Gazette of Ukraine. No 75. T. 1. 83 p.

8. Prohrama povodzhennia z tverdymy pobutovymy vidkhodamy u Volynskii oblasti na 2018-2021 roky [Solid waste management program in Volyn region for 2018-2021]. (2018) Available at: http://volynrada.gov.ua/session/20/14-0. 9. Zakon Ukrayiny «Pro vidkhody» [Law of Ukraine «On Waste»].(01.05.2019). №
187/98-VR. Available at: https://zakon.rada.gov.ua/laws/show/187/98%D0%B2%D1%80/ed20190501.

10. Nakaz «Pro zatverdzhennia Pravyl oblashtuvannia i utrymannia diiuchykh (isnuiuchykh) khudobomohylnykiv ta biotermichnykh yam dlia zakhoronennia trupiv tvaryn u naselenykh punktakh Ukrainy» [Order «On approval of the Rules of arrangement and maintenance of existing (existing) burial grounds and biothermal pits for burial of animal carcasses in settlements of Ukraine»]. (27.10.2008). № 232. State committee of veterinary medicine of Ukraine. Available at: https://zakon.rada.gov.ua/laws/show/z0085-09#Text.

11. DBN V.2.4-2-2005 Zmina № 1 «Polihony tverdykh pobutovykh vidkhodiv.
Osnovni polozhennia proektuvannia» [State building norms V.2.4-2-2005 Change №
1 «Landfills of solid household waste. Basic design provisions»]. (06.06.2016). №
138. State Enterprise «Ukrarkhbudinform», 68 p.

12. «Pro zatverdzhennia Poriadku vedennia reiestru obiektiv utvorennia, obroblennia ta utylizatsii vidkhodiv» [«About the statement of the Procedure for maintaining the register of objects of formation, processing and utilization of waste»]. (31.08.1998). № 1360. Cabinet of Ministers of Ukraine. Available at: https://zakon.rada.gov.ua/laws/show/1360-98-%D0%BF#Text.

13. Dyrektyva Yevropeiskoho Parlamentu ta Rady 2008/98/IeS pro vidkhody ta skasuvannia deiakykh Dyrektyv [Directive 2008/98/EU of the European Parliament and of the Council on waste and repealing certain Directives]. (2008). European Parliament and Council. Available at: https://minjust.gov.ua/files/general/2015/09/08/20150908000009671.doc.

14. Dyrektyva Rady № 1999/31/IeS shchodo polihoniv zakhoronennia vidkhodiv [Council Directive 1999/31/EU on landfills].(1999). Council of the European Union. Available at: https://zakon.rada.gov.ua/laws/show/994\_925.

15. «Pro zatverdzhennia Poriadku vedennia reiestru mists vydalennia vidkhodiv» [«On approval of the Procedure for maintaining the register of waste disposal sites»].

(03.08.1998). № 1216. Cabinet of Ministers of Ukraine. Available at: https://zakon.rada.gov.ua/laws/show/1216-98-%D0%BF#Text.

16. «Pro systemu zbyrannia, sortuvannia, transportuvannia, pererobky ta utylizatsii vykorystanoi tary (upakovky) i tverdykh pobutovykh vidkhodiv» [«About the system of collection, sorting, transportation, processing and utilization of the used container (packing) and solid household waste»]. (16.03.1999). № 408. Cabinet of Ministers of Ukraine. Available at: https://zakon.rada.gov.ua/laws/show/408-99-%D0%BF#Text.

17. «Pro zatverdzhennia Pravyl nadannia posluh iz zbyrannia ta vyvezennia tverdykh i ridkykh pobutovykh vidkhodiv» [«On approval of the Rules for the provision of services for the collection and removal of solid and liquid household waste»]. (21.03.2000). № 54. State committee of Ukraine on construction and architecture. Available at: https://zakon.rada.gov.ua/laws/show/z0457-00#Text.

18. «Pro zatverdzhennia Polozhennia pro kontrol za transkordonnymy perevezenniamy nebezpechnykh vidkhodiv ta yikh utylizatsiieiu/vydalenniam i Zhovtoho ta Zelenoho perelikiv vidkhodiv» [«On approval of the Regulations on control over transboundary shipments of hazardous waste and their utilization / disposal and the Yellow and Green lists of waste»]. (13.07.2000). № 1120. Cabinet of Ministers of Ukraine. Available at: https://zakon.rada.gov.ua/laws/show/1120-2000-%D0%BF#Text.

19. «Pro zatverdzhennia Tekhnichnoho rehlamentu z pidtverdzhennia vidpovidnosti pakovannia (pakuvalnykh materialiv) ta vidkhodiv pakovannia» [«Pro zatverdzhennia Tekhnichnoho rehlamentu z pidtverdzhennia vidpovidnosti pakovannia (pakuvalnykh materialiv) ta vidkhodiv pakovannia»]. (24.12.2004). № 289. State Committee of Ukraine for Technical Regulation and Consumer Policy. Available at: https://zakon.rada.gov.ua/laws/show/z0095-05#Text.

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ПОНЯТІЙНИЙ АПАРАТ ОБРОБЛЕННЯ БЕЗПЕЧНИХ ВІДХОДІВ В ОБЛАСТІ ЇХ ЗАХОРОНЕННЯ ТА В РАМКАХ ІМПЛЕМЕНТАЦІЇ ЗАКОНОДАВСТВА ЄС В УКРАЇНІ Анотація. В Україні понятійний апарат сфери оброблення муніципальних відходів в області їх захоронення має недоліки, а в рамках імплементації законодавства ЄС в Україні з'являються нові терміни, які вносять свої корективи. Це призводить до невизначеності, незрозумілості, розбіжності і неправильного використання понять суб'єктами сфери відходів, науковцями, авторами статей тощо. Для початку реформування системи відходів потрібно з'ясувати недоліки минулого понятійного апарату і чітко сформувати розуміння нового.

Дане дослідження покликане проаналізувати понятійний апарат оброблення безпечних відходів в області їх захоронення та в рамках імплементації законодавства ЄС в Україні, а саме термінологія до початку реформи управління відходами і після, пошук спільного і розбіжного, виявлення недоліків в тлумаченнях та власне бачення таких визначень.

При написанні даної статті використовувався теоретичний метод, метод вивчення нормативних та інструктивно-методичних документів, синтез, аналіз, порівняння, групування. Теоретичною базою слугували праці українських вчених, аспірантів, нормативно-правова база України та ЄС в області відходів.

По завершенню дослідження було сформовано чотири групи термінів по кожній із яких з'ясовані плюси та недоліки визначення термінів, а також запропоновано шляхи вдосконалення понятійного апарату оброблення безпечних відходів в області їх захоронення та в рамках імплементації законодавства ЄС в Україні.

**Ключові слова.** Понятійний апарат, термін, відходи, захоронення, імплементація законодавства ЄС.

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## ПОНЯТИЙНЫЙ АПАРАТ ОБРАБОТКИ БЕЗОПАСНЫХ ОТХОДОВ В ОБЛАСТИ ИХ ЗАХОРОНЕНИЯ И В РАМКАХ ИМПЛЕМЕНТАЦИИ ЗАКОНОДАТЕЛЬСТВА ЕС В УКРАИНЕ

Аннотация. В Украине понятийный аппарат сферы обработки муниципальных отходов в области их захоронения имеет недостатки, а в рамках имплементации законодательства ЕС в Украине появляются новые Это термины, которые вносят свои коррективы. приводит к неопределенности, непонятности, разногласия и неправильного использования понятий субъектами сферы отходов, учеными, авторами статей и тому подобное. Для начала реформирования системы отходов нужно выяснить недостатки прошлого понятийного аппарата и четко сформировать понимание нового.

Данное исследование призвано проанализировать понятийный аппарат обработки неопасных отходов в области их захоронения и в рамках имплементации законодательства ЕС в Украине, а именно терминология до начала реформы управления отходами и после, поиск общего и расходящегося, выявление недостатков в толкованиях и свое видение таких определений.

При написании данной статьи использовался теоретический метод, метод изучения нормативных и инструктивно-методических документов, синтез, анализ, сравнение, группировка. Теоретической базой послужили труды украинских ученых, аспирантов, нормативно-правовая база Украины и ЕС в области отходов.

По завершению исследования было сформировано четыре группы терминов по каждой из которых выяснены плюсы и недостатки определения терминов, а также предложены пути совершенствования понятийного аппарата обработки неопасных отходов в области их захоронения и в рамках имплементации законодательства ЕС в Украине.

*Ключевые слова.* Понятийный аппарат, срок, отходы, захоронения, имплементация законодательства ЕС.