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CONSEQUENCES OF DEREGULATION IN THE FIELD OF STATE CONTROL FOR IMPORT, DISTRIBUTION, USE AND DISPOSAL OF HAZARDOUS CHEMICAL SUBSTANCES AT THE TERRITORY OF UKRAINE**M. V. Velychko¹, Ye. Yu. Sytnyk², O. S. Kovaliuk², D. I. Holovin²**¹ National Academy of the Security Service of Ukraine, Kyiv, Ukraine² Security Service of Ukraine, Kyiv, Ukraine

ABSTRACT: This article studies the issues of the condition of chemical safety system of the state under cancellation of the Decision of the Cabinet of Ministers of Ukraine No. 440 as of June 20, 1995 "On approval of the Procedure for obtaining permit for manufacture, storage, transportation, use, deposition, destruction, and disposal of poisonous substances, including products of biotechnology and other biological agents" for development of proposal regarding improvement of regulatory countermeasures upon the threats for security of Ukraine of chemical origin.

Conclusion. Ways to optimize chemical safety system upon import, storage, use, and disposal of pesticides and other poisonous substances were argued.

Key words: chemical safety, state control, pesticides, plant protection agents, transportation, storage, use, disposal.

Introduction. During the last several, due to the discovery of pesticides — synthetic chemicals that have been already used all over the world for the improvement of efficiency of crop tending and increase of crop yield, a significant breakthrough in resolving of food issues took place in agriculture. Surprisingly, but due to high toxicity of these substances, humanity also obtained new challenges of national nature, associated in particular with chemical safety, along with economic and social preferences. The reason for this is a new necessity in effective chemical protection system occurred upon the use of the specified category of chemicals. One of its key elements is a statutory regulation of distribution of the chemical plant protection agents (hereinafter — CPPA). Furthermore, a range of pesticides may be used as a chemical weapons and terrorism mean [1, 2].

The above facts mainstream current necessity regarding further complex scientific approach in studies aimed at the development of the appropriate component of both legal and administrative-institutional countermeasures against hazards of all spectrum of new chemical threats.

Individual aspects of theoretical and practical resolution of the problem of chemical safety were reviewed in the works of N. V. Baranova, V. V. Vlizlo, V. Z. Burlai, I. V. Konich,

O. P. Kravchuk, I. V. Liepioshkin, P. O. Melnyk, S. D. Melnychuk, M. H. Prodanchuk, L. I. Poviakel, H. P. Prostakysyn, Yu. T. Salyha, Ye. I. Spynu, V. H. Subbotin, H. H. Onishchenko, V. D. Chmil, H. O. Cherniakov, A. A. Shaposhnikov, etc. [1–16].

Issues of legal regulation of environmental control and human protection from threats of chemical origin were studied by V. O. Voloshyn, I. M. Rohach, H. H. Roshchin, etc.

This problem is a topical issue till present days and it is still in the eyesight of scientists, investigators, and responsible services. Since the issue of condition of chemical safety in the state due to cancellation of the Decision of the Cabinet of Ministers of Ukraine (CMU) No. 440 as of June 20, 1995 "On approval of the Procedure for obtaining permit for manufacture, storage, transportation, use, deposition, destruction, and disposal of poisonous substances, including products of biotechnology and other biological agents" (hereinafter — the decision of CMU No. 440) has not been studied in complex from the position of scientific and organisation rating in case of uncontrolled import of the appropriate chemically hazardous substances to the territory of Ukraine.

Objective. Study of the influence of cancellation of the Decision of CMU No. 440 on chemical safety in the state, as well as exploration of the efficiency of counter-terrorism

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efforts at different levels in Ukraine via improvement of the regulatory base.

According to the para. 4 of the Article X of the Convention for prohibition of chemical weapons, as well as for execution of para. 1 of the Schedule of measures for 2012–2021 regarding provision of obligations performance by Ukraine according to the Convention about prohibition of development, manufacture, accumulation, and use of chemical weapons and about its destruction, approved by the Order of the President of Ukraine No. 637 as of November 15, 2012, Ukraine annually submits information on the national programs of protection against chemical weapons to the Technical secretary of the Organisation on prohibition of chemical weapons [3]. During the years of independence, appropriate work was performed in Ukraine with the creation of separate elements of the civil defence system in force in our country. Unfortunately, there is still a lack of unitary national program for protection from both chemical weapons and hazardous chemical substances used in commercial activities that include chemical plant protection agents.

At the same time, previous analysis suggests that activities of the governmental structures for assurance of chemical safety of population and environment in Ukraine from chemically hazardous factors, including threats of chemical terrorism do not correspond to the level that allows to exclude the risks of harm for life and health of people, environment and objects of technosphere [4]. As in other countries, one of the important aspects in resolution of the above problem in Ukraine was and still remains the issue of efficiency and reliability of the statutory regulation of chemical safety system of the state. However, Ukrainian legislation regarding different aspects of application of chemically hazardous substances is very imperfect in many issues. This is especially topical for the problem of agricultural chemicals falsification. The Law of Ukraine “On pesticides and agricultural chemicals” and the Decision of the Cabinet of Ministers of Ukraine No. 354 as of May 27, 1996 “On the procedure of omission and disposal of expired or prohibited pesticides and agricultural chemicals” does not regulate the procedure for omission and disposal of falsified pesticides that additionally to ecological and economical aspect also creates a precedent of violation of intellectual property rights of the

manufacturing company that manufactures original products.

Currently, special hazard is created by the uncontrolled import of ecologically hazardous for human, animals, plants and other organisms, chemically harmful substances to the territory of Ukraine that is a result of the range of measures regarding deregulation of business and fight against corruption after cancellation of the Decision of the Cabinet of Ministers of Ukraine No. 405 as of September 03, 2014 was recognized as that having become ineffective regarding the Decision of the CMU No. 440 [5].

The decision of CMU No. 440 regulated the procedure of issuing permissions for manufacture, storage, transportation, use, deposition, destruction, and disposal of poisonous substances, including products of biotechnology and other biological agents, and the list of products subjected for control was approved. This Decision of CMU No. 440 specified that the procedure set out regarding handling with chemically hazardous substances therein is obligatory for execution by all enterprises, institutions, organisations independently of ownership form [7]. Further, for detalisation and legal support of the above regulatory document, other regulatory documents were accepted by the Cabinet of Ministers of Ukraine, namely: the Decision of the CMU No. 1120 as of July 13, 2000 “On approval of the Provision for control over cross-border transportation of hazardous waste and their disposal/elimination” with inclusion of separate Yellow and Green list of waste” registered by the Ministry of Ecology and Environmental Management of Ukraine as of October 10, 1997 No. 164 and further cancelled by it according to the Order as of October 16, 2000 No. 165[8].

Later, the Ministry of Ecology and Environmental Management of Ukraine by its Order No. 294 as of July 30, 2002 cancelled approved “Instructions on the review of applications and provision of permissions for manufacture, storage, transportation, use, deposition, destruction, and disposal of poisonous substances, including products of biotechnology and other biological agents” that specialised the requirements of the above decisions of CMU [9]. The same order doubles special list of poisonous substances, manufacture, storage, transportation, use, deposition, destruction, and disposal of which unscientific and

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research, control and analytical works, identification of unspecified substances and preparations and in educational process is performed upon available permission of the Ministry of Ecological Resources specified in the decision of CMU No. 440 as of June 20, 1995. According to the explanation of the Ministry of Justice of Ukraine, the Order of the Ministry of Ecology and Natural Resources of Ukraine No. 294 as of July 30, 2002 along with the Decision of CMU No. 440 are also obligatory for execution by all enterprises, institutions, organisations, independently of ownership form. Justification for cancellation of the Decision of CMU No. 440 was motivated by the following:

- legislation in the field of handling with poisonous substances has not been significantly reviewed during the last 10 years and was not harmonized with the current requirements in regulation of business activities;
- legislation in the field of handling with poisonous substances is significantly over-regulated, controversial, and doubles other measures of state regulation;
- for obtaining of the permission of the Ministry of Ecology, it is required to provide the range of other documents (permission for initiation of works of increased danger and initiation of operation of mechanisms, equipment of increased danger, conclusion of the state sanitary and epidemiological expertise, document that proves state registration of the dangerous factor or certificate on state registration of pesticide or agricultural chemical, approval of the Ministry of Internal Affairs in case of transportation by motor vehicles, etc.). In the above fields appropriate state control and surveillance is effective;
- issue of such permission is burdensome, ineffective, formal administrative burden for business entities and at the same time it has no legislative grounds. Thus, cancellation of such permission has no risks for the environment [5].

After cancellation of the decision of CMU No. 440 as well as in contrast to other specified regulatory acts, some commercial structures import to Ukraine chemically hazardous substances and waste without permits from the Ministry of Ecology and Environmental Management of Ukraine that is a violation of the para. 2, part 1, Art. 17 of the Law of

Ukraine “On international economic activities” (prohibition of separate types of export and import) and Art. 97 of the Custom Code of Ukraine “Limitations regarding transportation of certain goods through the customs border of Ukraine”. At the same time, the problem of counterfeits and falsification among plant protection agents soled and used in Ukraine become more and more threatening in these later days.

Individual cases of import of plant protection agents (pesticides and herbicides) by domestic entrepreneurs from China to the territory of Ukraine are registered with violations of the requirements of current legislation, among them there are counterfeit preparations that creates preconditions for chemical threats for population health and ecological condition of the state. For example, in 2014 law enforcements of Ukraine solved the range of facts of violation of current legislation requirements by the officials of limited liability companies during import, storage, and distribution of pesticides and other agricultural chemicals resulting in preconditions for infliction of harm to life and health of the population of this country [6]. According to the results of informing of the Ministry of Ecology and Environmental Management of Ukraine, Ministry of Economic Development of Ukraine, two special sanctions were applied by the Order No. 949 as of August 06, 2014: temporary cessation of the permit for international economic activities according to the Art. 37 of the Law of Ukraine “On international economic activities” regarding two business entities for violation of the laws of Ukraine “On pesticides and agricultural chemicals” and “On international economic activities” during international economic activities on import to the territory of Ukraine of plant protection agents of inappropriate quality (low) with the signs of falsification and content of high-potent dangerous chemical compounds and elements unspecified by the registration materials. Cancellation of the Decision of CMU No. 440 along with other negative consequences renders impossible application of the Article 221 of the Criminal Code of Ukraine (Contraband goods) to the lawbreakers who unlawfully transport pesticides to the territory of Ukraine, and actions of whom contain signs of crime components.

Furthermore, the Ministry of Ecology and Environmental Management of Ukraine in

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cooperation with law enforcement bodies of the country on October 08, 2015 in the City of Kyiv performed extensive special operation on the cancellation of illegal activities of the international criminal group involved in contraband import from China of the chemical raw materials, lawless manufacture and arrangement of constant sales network of counterfeit agricultural chemicals of world brands “Bayer”, “Syngenta”, “Du Pont”, and “BASF”, which contain poisonous and high-potent substances.

In the Region of Kyiv, during conduct of searches at the addresses of clandestine manufacture and at its warehouses, law enforcement officers found equipment for manufacture of counterfeit agricultural chemicals, more than 15 tonnes of counterfeit products ready for sales, as well as raw materials for its illegal manufacture — chemical substance of Chinese origin, printed materials of the above brands, packages, counterfeit holographic protection tapes, etc.

According to the previous data, total amount of manufactured counterfeit products by the above criminal group during the year was about 1,000 tonnes totalling to UAH 20 mln.

Within the prejudicial inquire, law enforcement organs performed a complex of operational investigative measures on exposure of subjects involved in the arrangement of the above criminal scheme. Currently, materials were collected, and organisers, accessories, and executors served with charge papers regarding the crime, set by part 3 of the Art. 229 of the criminal Code of Ukraine.

Regarding plant protection agents, in general, during 2011–2015 law enforcement organs of Ukraine found and confiscated more than 2,500 tonnes of illegally imported pesticides of poor quality. Situation in the country is not better with other groups of chemically hazardous substances.

Analysis of information also suggests unsatisfactory condition of the state regulation of handling with hazardous waste, the main reasons of which are:

- the lack of state registry of waste according to the EC requirements (harmonized with the regulation “track of waste”), at the same time, there is a lack of e-registry that would execute it;
- the lack of discretionary funding of works regarding disposal of hazardous waste on

- the part of legal entities and individual entrepreneurs, business activities of which is the source of waste origin;
- there is a lack of registry of disposal technologies;
- significant amount of waste obtaining at industrial enterprises due to the use of out-of-date technologies, equipment;
- unwillingness of certain business entities to introduce closed cycle of manufacture;
- high concentration and short delivery of the norms of environmental legislation at the places of storage of domestic and industrial waste, pulp, agricultural chemicals;
- presence of numerous places of hazardous chemical waste storage, including radioactive remained since USSR;
- non-compliance with sanitary and technical rules for waste handling;
- the lack of appropriate control at the checkpoints at the state border over import or transition of waste that seems as belonging to a green group of waste;
- non-coordination of accounting system (regarding pesticides, it is proposed to introduce the registry equal to those of current international standards... ISO and IEC (stages of life span of products));
- the lack of a sufficient amount of domestic specialised enterprises for disposal and polygons of safe temporary storage.

Therefore, enterprises focused on the disposal of chemically hazardous waste that are not suitable for further use and storage, during business activities do not meet the requirements of the current environmental legislation and requirements for handling with it. Upon the existence of corrupted relations between the personnel of state institutions, they can obtain permits for such business activities in the field of handling with chemically hazardous waste upon the lack of the appropriate manufacturing facilities, certified warehouses, obtain required information for falsification of documented materials during import of waste, etc. to the territory of Ukraine. Works on waste disposal are performed with violations of technological processes, upon the lack of work projects (with an assessment of emissions to the environment) and conclusions of the state ecological expertise.

For precluding of the process of tracking of moving of hazardous waste by the appropriate bodies, especially at the territory of the

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Donetsk People's Republic and Luhansk People's Republic, commercial structures (actually intermediates, have only required permits, while there are no manufacturing facilities) transfers waste to other enterprises for several times instead of disposal, and they are also intermediates; finally, their progressive accumulation occurs.

Distribution and disposal of inappropriate for use and prohibited chemically hazardous substances from chemical plant protection agents remains an acute problem in Ukraine. In general, at this time registered number of inappropriate for use and prohibited chemical plant protection agents throughout Ukraine according to the data of the Ministry of Ecology and Environmental Management of Ukraine is about 20,000 tonnes [10]. There are inappropriate CPPA almost at the entire territory of all regions of Ukraine, commonly, inappropriate for this purpose warehouses without appropriate guarding that provides possibility for unapproved access and uncontrolled use of these substances in private agricultural sector. This may lead to the pollution of soils, penetration of hazardous chemical compounds into water-bearing layers, agricultural products, and have a negative effect of the condition of population health [11–14].

During 2011–2015, a significant part of state resources was directed at funding of works on decontamination of inappropriate for further use chemical plant protection agents stored at the territory of Ukraine. Despite the fact that domestic and foreign companies separately pay to the budget funds for disposal of containers, issue of collection, transportation, and disposal of containers from pesticides is currently unsolved [15–17].

The main reasons of a slow rate of inappropriate CPPA disposal are:

- insufficient volume of state funding;
- the lack of unitary centralised system of pesticides residues, agricultural chemicals, and containers registration in Ukraine;
- inventory of the availability of the residues of inappropriate CPPA of poor quality in regional state administration, administration of the City of Kyiv, etc.;
- non-provision of independent control by inspection bodies of Ministry of Ecology and Environmental Management over the compliance with the requirements in the field of handling with hazardous waste by business entities.

Furthermore, military warehouses of Ukraine store more than 5,000 tonnes of military poisonous agents since USSR that should be destructed according to the Convention on chemical demilitarization [3]. Currently, the lack of funds and required special manufacturing facilities makes it impossible to perform their disposal by the country.

Therefore, provided examples suggest significant worsening of the state condition of national safety of Ukraine regarding threats of chemical nature that was also negatively influenced along with other factors by measures for deregulation of statutory documents in the above field.

Conclusion

Effective resolution of the existent problems and reduction of potential chemical threats requires development and implementation of complex measures regarding improvement of existent chemical safety system, namely:

1. Provision of between-sector approach with the involvement of law enforcement bodies, border guard service, customs, agricultural and environmental management sectors to phytosanitary and epidemiological surveillance, monitoring of the distribution of hazardous chemical substances, including pesticides, considering signal signs and events associated with poisoning of people and detection of critical amount and/or concentrations of hazardous chemical substances, including soils, water, seeds, plants, etc.

2. Detection of topical threats via completion of the comprehensive list of the chemical substances that may lead to emergencies in the field of public health, with further formation of the national profile (list) of chemical risks.

3. With the help of international organisation and partners of Ukraine, it is required to rearrange communication of experience regarding problems with chemical safety occurred during the same armed conflicts and develop measures of preventive counteractions for our country.

Ukraine participates in the projects of “Global Partnership Against the Spread of Weapons and materials of Mass Destruction”. This provides an opportunity to use technical support regarding the development and implementation of the chemical safety system equivalent to the world one. Its worth to involve inter-departmental scientific institutions of

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Ukraine, including law enforcement bodies and business structures to this work. These are conditions, under which it is possible to develop project of the regulatory document harmonized with EC requirements instead of cancelled Decision of the Cabinet of Ministers of

Ukraine No. 440 as of June 20, 1995 and project of the effective procedure regarding control and translocation through a state border of goods that may have a real threat for the national safety of Ukraine of chemical origin.

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