DOI: 10.52363/passa-2025.1-24 UDC: 327.7 + 325.14

Taraduda D., PhD in Technical Science, Associate professor, Associate Professor of Department of Emergency Situations Elimination, Institute of Postgraduate Education, Lviv State University of Life Safety, Lviv, ORCID: 0000-0001-9167-0058

GLOBAL THREATS TO CIVIL SECURITY AND WAYS TO RESPOND TO THEM WITHIN THE LIMITS OF THE EU CIVIL PROTECTION MECHANISM

The current state of functioning of nuclear countries that have been increasing their nuclear potential in recent years has been analyzed. It has been found that some of these countries are doing so gradually (Great Britain, France, the USA, etc.), while others are not (China, North Korea, the Russian Federation, etc.). It has been revealed that the latter group of countries are characterized by a latent increase in the potential of nuclear weapons, which adds even greater complexity to responding to nuclear threats from these states. A trend towards increasing information about the emergence of potential nuclear conflicts in the Middle East has been established, in particular between Israel and Iran, which are simultaneously pursuing a policy of intimidation. Given the massive damage from the use of nuclear weapons, the importance of applying primarily preventive measures in this area is emphasized. Among these measures, it is recommended to single out organizational, legal, personnel, informational and other resource measures.

Keywords:public administration, authorities, civil protection, civil security, emergencies, man-made emergencies, military emergencies, nuclear threats, nuclear weapons, EU Civil Protection Mechanism.

Problem setting. Civil protection involves the implementation of a number of measures to prevent, detect, respond to and eliminate emergencies, which are grouped according to various classification grounds. For Ukraine, emergencies of a technogenic and military nature are of particular relevance, the emergence of which today is largely caused by a neighboring aggressor state. It is difficult for Ukraine to cope with these emergencies on its own, so it relies on external support in this area. The latter involves the involvement of various international institutions. Ukraine has done a lot in this direction, in particular, it has become a full member of the EU Civil Protection Mechanism. However, Ukraine still has a lot to do given its integration aspirations, including in the field of civil protection.

Analysis of recent research and publications. The conceptual principles of the formation and implementation of state policy in the field of national and civil security are outlined in the scientific works of S. Belaya, S. Dombrovska, V. Yemelyanov, L. Zhukova, N. Klymenko, O. Kravchuk, S. Kruk, O. Kryukov, P. Makhortov, R. Meleschenko, N. Nyzhnyk, O. Ostroverkh, S. Pyrozhkov, A. Pomaza-Ponomarenko, G. Pocheptsov, R. Prymush, A. Ruban, G. Sytnyk, A. Thayer, A. Terentieva, V. Tyutyunyk, V. Fedorchak, T. Yarovy, O. Yashchenko and others [1; 3; 4; 5; 7; 8; 12]. At the same time, a number of issues regarding the assessment of the state of implementation of public administration in the field of civil protection in Ukraine in the context of the implementation of its integration aspirations in conditions of full-scale aggression remain insufficiently researched, and these aspects are related to its escalation, which affects the level of national and social security as a whole.

Paper objective. The purpose of the article is to study ways to improve public administration in the field of civil protection in Ukraine in the context of European integration.

Paper main body. The institutionalization of public administration in the field of civil protection in Ukraine involves the legislative consolidation of its (institutionalization) principles. On this basis, we can identify the following stages of institutionalization: 1) the preparatory stage (2008–2013), during which the Administrative Arrangement between the Ministry of Emergency Situations of Ukraine and the Directorate-General for Environment of the European Commission on cooperation and exchange of information was signed; 2) the negotiation stage or permanent development (2014–2022), within which the Association Agreement with the EU was signed, and an Action Plan for the implementation of the said agreement between Ukraine and the EU on its accession to the EU Civil Protection Mechanism was signed and ratified.

Last year, Ukraine developed several "CBRN modules" that were certified in the EU Civil Protection Mechanism. Previously, 20 "CBRN modules" were certified within the framework of the mentioned mechanism, which indicates the relevance of this direction of civil protection, given the dangers that lie behind it. These dangers are of considerable scale and pose a threat to the population of more than one region and country. Unfortunately, some countries take advantage of this and express threats such as the potential for missile and nuclear strikes, which pose a global danger to civilized humanity. Some of these countries are the Russian Federation, Irag, Iran, North Korea, etc., which at one time regularly expressed "nuclear" threats [1; 2]. At the same time, there are countries that, even without "nuclear" threats, are taking measures that pose a global danger to society. Among such countries, we can primarily single out Israel and Iran, which have simultaneously expressed corresponding "nuclear" threats [4; 10]. This is evidenced by statements by the top leadership of Israel, which indicate the prospects for launching missile strikes on Iran's "nuclear" facilities. As a result, the whole world will remember 06/13/2025 as the day when Israel launched 300 missile strikes on Iran and information emerged that some of them hit Iranian nuclear facilities, which increased the radiation level thousands of times [3]. This is a threat to the whole world, which should never forget what the Chernobyl disaster was in 1986, how many victims it caused, without choosing who to harm their lives and health. The same Israel at one time accepted a significant number of cancer patients for treatment, who developed cancer due to radiation exposure. Israel should be aware of all the dangers posed by radiation, the amounts of which exceed it by hundreds and thousands of times. It seems that the state of Israel understands all the dangers associated with the effects of radiation. Thus, after the attack of a Russian drone on the Chernobyl nuclear power plant (in 2025), Israel undertook to help Ukraine with medicine against radiation sickness [5].

In order to understand the full extent of the danger from the use of nuclear weapons or strikes on nuclear facilities, it is advisable to dwell in more detail on the state of functioning of the largest nuclear powers in the world in the direction of their use of nuclear arsenals. It should be noted that the nine nuclear powers - the United States, Russia, Great Britain, France, China, India, Pakistan, North Korea and Israel - continued to modernize their nuclear arsenals in 2023. At the same time, several of these countries deployed new nuclear weapons [9]. SIPRI is the Stockholm International Peace Research Institute. The SIPRI report notes that, as of January 2024, of the total global stockpile of approximately 12,121 nuclear warheads, about 9,585 were in military stockpiles for potential use. SIPRI estimates that 3,904 of these

warheads were deployed with missiles and aircraft, an increase of 60 since January 2023, while the remainder were in central storage. About 2,100 of the deployed warheads were on high alert on ballistic missiles. Almost all of these warheads belonged to Russia or the United States, but for the first time, some Chinese nuclear warheads are believed to be on high alert [ibid.].

Although the total number of nuclear warheads in the world continues to decline as Cold War-era weapons are gradually dismantled, the institute's experts continue to observe an annual increase in the number of operational nuclear weapons. This trend will continue and is likely to accelerate in the coming years. India, Pakistan, and North Korea are trying to deploy several warheads on ballistic missiles, which are already in the possession of Russia, France, the United Kingdom, the United States, and more recently China. This would provide a rapid potential increase in the number of deployed warheads, as well as the ability of nuclear-armed states to threaten to destroy a much larger number of targets [9].

Russia and the United States together possess almost 90% of all nuclear weapons in the world. The institute's analysts point out that the size of their respective military nuclear stockpiles (i.e. usable warheads) appears to have remained relatively stable in 2023, although Russia is estimated to have deployed about 36 more warheads in operational forces than in January 2023. At the same time, transparency about nuclear forces has decreased in both of these states since Russia's full-scale invasion of Ukraine in February 2022, and the debate over nuclear weapons sharing arrangements has become even more urgent [ibid.].

As for China's nuclear arsenal, SIPRI estimates that its size increased from 410 warheads in January 2023 to 500 in January 2024, and is expected to continue to grow. For the first time, China could also deploy a small number of warheads on missiles in peacetime. Depending on how the country chooses to structure its forces, it could potentially have at least as many ICBMs as Russia or the United States by the turn of the decade, although its nuclear warhead stockpile is expected to remain far smaller than that of either country [ibid.].

Although the United Kingdom is not expected to have increased its nuclear arsenal in 2023, its nuclear warhead stockpile is expected to increase in the future as a result of the British government's announcement in 2021 of an increase in the limit from 225 to 260 warheads. At the time, the government also stated that it would no longer "publicly disclose" the number of its nuclear weapons, deployed warheads or deployed missiles [ibid.].

In 2023, France continued its programs to develop a third-generation nuclear-powered ballistic missile submarine (SSBN) and a new air-launched cruise missile, as well as to reconstruct and modernize existing systems [9]. In general, we note that France has increased its military budget. France's new defense budget for 2024-2030 will amount to 413 billion euros, which is a third more than the previous military spending plan of 295 billion euros for 2019-2025. France will also increase military aid to Ukraine by 170 million euros and simplify the process of supplying weapons [8]. The money will allow the military to modernize France's nuclear arsenal, increase spending on intelligence, and develop more remotely controlled weapons. The approved document also calls for doubling the number of military reservists and strengthening cyber defense, as well as increasing weapons production capacity both to help Ukraine and to adequately support the French army [ibid.].

India slightly expanded its nuclear arsenal in 2023. Both India and Pakistan continued to develop new types of nuclear weapon delivery systems in 2023. While Pakistan remains the main focus of India's nuclear deterrence, India appears to be increasingly focusing on longer-range weapons, including those capable of reaching targets across China [9].

Continuing the conventional plan of the study, we note that there is a group of countries that continue to significantly increase their nuclear capabilities. For example, the DPRK continues to prioritize its military nuclear program as a central element of its national security strategy. According to SIPRI, the country has now assembled about 50 warheads and has enough fissile material to bring the total to 90 warheads, which is significantly higher than the estimates for January 2023. And although North Korea did not conduct a nuclear test in 2023, it appears to have conducted its first test of a short-range ballistic missile from a rudimentary mine. The DPRK has also completed the development of at least two types of attack cruise missiles (LACMs) designed to deliver nuclear weapons [ibid.]. Israel, which does not publicly admit to possessing nuclear weapons, is also believed to be modernizing its nuclear arsenal and is likely to be modernizing its plutonium production reactor at Dimon [ibid.].

Therefore, modern nuclear threats are associated not only with the use of nuclear weapons, but also with the use of kinetic weapons against objects containing nuclear and military weapons. These threats are global in nature, so it is important to detect and respond to them in a timely manner, and, importantly, to warn them in a timely manner. After all, nuclear weapons are weapons of mass destruction. Nuclear charges can be placed on various types

of missiles, torpedoes, bombs and artillery shells, with which Russia constantly fires at our territory. It is possible to understand that it was a nuclear weapon only after a direct explosion and obtaining data on radioactive contamination of the territory.

In the case of the use of nuclear weapons, the use of a "dirty bomb" or an explosion at a nuclear power plant, the main rule remains unchanged: when you hear the siren, go to shelter; provide first aid to those affected by nuclear weapons; turn on the radio, television or use the Internet to receive a notification about the corresponding threat and further actions, etc. Emergency services, police or local authorities should provide operational information on their official websites or social media pages or in official channels. However, the main measures in this area should be preventive, characterized by organizational, legal, personnel, information, material and technical and other resource support. As for organizational measures in the field of countering the use of nuclear weapons, we can identify measures of an institutional nature. They provide for the effective functioning of state and local government bodies in the field of ensuring civil security. Legal measures include the development and updating of the domestic legal framework in the field of civil protection, the implementation of international standards, the legitimization of adopted sanctions against a state that threatens to use nuclear weapons, etc. Personnel, information and material and technical measures are conditionally classified as resource measures, which provide for the rational use of a "portfolio" of resources in order to guarantee civil security.

Conclusions. Based on the analysis, the following conclusions can be drawn:

1. It was found that in recent years the issues of the use and increase in the number of nuclear weapons have become increasingly relevant throughout the world. At the same time, nuclear charges can be placed on various types of missiles. A radiological dispersion device or, as it is also called, a "dirty bomb," which is actually an explosive with radioactive material. During detonation, radioactive substances spread with a blast wave.

2. The peculiarities of the functioning of the nine nuclear countries of the world that have nuclear weapons, the number of which is changing in an increasing direction, have been established. It was found that certain countries do this gradually, including increasing their own military budget (England, France, etc.), and some - quite rapidly, hiding it from the whole world (South Korea, Israel, China, etc.).

3. The adoption of primarily preventive measures in the field of nuclear weapons is

justified, given its massive destruction not only of the population of a single country, but of several countries.

References:

- EU: Putin's nuclear threats must be taken seriously // BBC News Ukraine. 09/24/2022. URL: https://www.bbc.com/ukrainian/features-63020625.
- Eggert K. Why is Putin again scaring the world with a nuclear strike? // In Focus. 09/27/2024. URL: https://www.dw.com/uk/komentar-comu-putin-znovu-lakae-svitadernim-udarom/a-70343912.
- Israel attacked Iran bombed nuclear facilities and missile bases // Business Information Network. 06/13/2025. URL: https://bin.ua/top/335326-izrayil-atakuvaviran-rozbombiv-yaderni-obyekti-i.html.
- 4. Israel intends to strike Iran's nuclear facilities WSJ // KorespondenT.net. 02/13/2025.
 URL: https://ua.korrespondent.net/world/4755565-izrail-maie-namir-vdaryty-poyadernykh-obiektakh-iranu-WSJ.
- After the drone attack on the Chernobyl nuclear power plant, Israel undertook to help Ukraine with medicines against radiation sickness – Times of Israel // Hromadske. 04/21/2025. URL: https://hromadske.ua/viyna/243501-pislia-ataky-drona-na-chaesizrayil-vziavsia-dopomahaty-ukrayini-z-likamy-proty-radiatsiynoyi-khvoroby-times-ofisrael.
- Pomaza-Ponomarenko A.L., Moroz S.A. Civil protection as a sphere of ensuring the national security of Ukraine // National security in the conditions of war, postwar reconstruction and global challenges of the 21st century: Materials of the All-Ukrainian scientific and practical conference (07-08.12.2023, Zhytomyr). P. 305–308.
- Primush R.B. The collective security system as the basis of national and international security // Investments: practice and experience. 2022. No. 5-6. P. 71–75.
- France approved a record defense budget, which includes aid to Ukraine // Ukrinform. 13.06.2025. URL: https://www.ukrinform.ua/rubric-world/3735507-u-francii-shvalilirekordnij-oboronnij-budzet-akij-vklucae-dopomogu-ukraini.html.
- Nuclear powers are strengthening their arsenals SIPRI report // Social News.
 06/17/2024. URL: https://suspilne.media/769949-aderni-derzavi-zmicnuut-svoi-

arsenali-zvit-sipri/.

- 10. Axios: Iran may launch a massive strike if Israel attacks its nuclear facilities // Liga. net. 06/12/20525. https://news.liga.net/ua/politics/news/axios-iran-mozhe-zavdatymasovanoho-udaru-u-razi-ataky-izrailem-yoho-iadernykh-ob%CA%BCiektiv.
- 11.Pomaza-Ponomarenko, A., Taraduda, D., Leonenko, N., Poroka, S. and Sukhachov, M. (2024), "Ensuring the safety of citizens in times of war: aspects of the organization of civil defense" // AD ALTA: Journal of Interdisciplinary Research, vol. 14, issue 1, pp. 216–220.