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**CHALLENGES TO THE ENERGY SECTOR OF UKRAINE IN
CONDITIONS OF FULL-SCALE WAR**

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Introduction. The situation in the energy sector of Ukraine has become complicated due to a number of factors, including the military conflict in the east of the country, the annexation of Crimea by Russia in 2014, as well as other economic and political processes taking place in the country. And starting from February 24, 2022, with the beginning of the full-scale invasion of the Russians on the territory of Ukraine, the situation worsened significantly. Despite the fact that certain security measures were taken, both for individual enterprises and for the entire energy industry, and work algorithms were developed in the conditions of active hostilities, the Ukrainian energy industry faced more threatening challenges. Many specialists were forced to leave the captured territories and shelling zones in the Dnipropetrovsk, Zaporizhzhia, Kherson, Mykolaiv and Odesa regions [1]. There was numerous damage to critical infrastructure equipment: substations, electrical networks, transformers, etc. The country faced nuclear terrorism when the Chernobyl and Zaporizhzhia nuclear power plants were seized. That is why the issues of ensuring the

safety of workers have become so acute.

Aim. To analyze the risks for energy facilities of Ukraine in the conditions of armed aggression of Russia.

Materials and methods. Today, it is quite difficult to estimate the total damage to the energy sector of Ukraine, because the murderous actions do not stop. However, it is known that the Okhtyrka thermal power plant was completely destroyed, and the Luhansk thermal power plant and the Zaporizhzhia nuclear power plant were under the control of the aggressor [2].

It was necessary to quickly develop and implement mechanisms for ensuring safe and accident-free working conditions under martial law, which would allow minimizing the manifestations of risks, namely:

- create a system of monitoring and detection of threats;
- strengthen control over critical infrastructure objects;
- establish cooperation with government bodies and the military to exchange information and obtain protection if necessary;
- prepare personnel for actions in emergency situations and teach them security measures during martial law;
- ensure sufficient fuel reserves for power plants and the use of reserve energy sources to ensure independent power supply;
- develop action plans in emergency situations that take into account possible military threats and ensure the rapid restoration of system operation in the event of a shutdown or damage.

Results and discussion. The following measures are taken to ensure stable production processes and primarily safe working conditions:

- brigades consisting of 3-5 workers with appropriate qualifications are involved in the performance of high-risk works near combat zones after conducting an unscheduled occupational safety briefing on the rules of personnel behavior during artillery shelling, bombing, etc.;
- in order to identify possible threats to the life and health of employees, before the start of high-risk works in the territories adjacent to combat zones, the

responsible persons, together with representatives of the territorial defense services, the State Emergency Service of Ukraine and the Ministry of Internal Affairs of Ukraine, conduct an inspection of the work zones and adjacent territories in order to search for suspicious objects and explosives [3];

- high-risk work is carried out mainly during the day, and if artificial lighting is necessary, light masking is used;
- banning the use of technically defective equipment, and in the event of an accident, prompt involvement of technical services is ensured;
- planning and familiarization of all employees of the logistics chain with safe routes for the delivery of equipment and other electrical equipment to the workplaces of employees;
- ensuring operational communication between employees for the possibility of urgent notification of possible dangers;
- prohibition to perform long-term work in the open area near the adjacent areas of hostilities, etc.

Conclusions. So, it becomes obvious that the energy industry of our country faces incredible challenges as a result of Russian armed aggression. Nevertheless, the conscientious and coordinated work of energy workers and the State Emergency Service of Ukraine allows us to effectively respond to the consequences of numerous enemy missile attacks, quickly restore electricity to the homes of the civilian population in most areas, and minimize the damage to the environment.

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