

## Nuclear power: a trifle for Russia and a catastrophe for the world

**The largest European power plant is occupied.** Where will the permanent shelling of the powerful nuclear facility by the Russian troops lead to? Russia is playing with **edge-tools** without understanding the fact that nuclear potential is neither a toy nor a trinket. If the shell hits “that” vulnerable place, it will affect not only Ukraine, but also the EU, NATO members, and, ultimately, Russia itself. Nevertheless, Putin continues **weaponizing energy**, initially it was **gas manipulations** and now it is **nuclear blackmail**.

When seizing nuclear plants, the aggressor seeks to pursue several goals at once.

### 1. The cover for their troops

While at the station, Russia is creating reliable cover for its troops, because few would risk shelling next to a nuclear power plant. At the same time, the Russians frequently dare do so to **shift the blame on** to the Ukrainian side and present it as uncontrolled and unreliable. There is no profit for Ukraine to shell the ZNPP as it is of **great importance** for the whole Ukrainian energy system.

### 2. Raw material for a weapon



Russia now has access to nuclear fuel loaded into reactors, which can potentially become raw material for creating nuclear weapons. According to Ukrainian National Nuclear Energy Generating Company “Energoatom”, there are **more than 22,000 spent fuel reactor assemblies** in the spent nuclear fuel storages. Such a significant amount of plutonium-239 can be turned into a **nuclear bomb**, and the humanitarian and ecological consequences of such a disaster will have **no borders** either for NATO or the EU states.

### 3. Blackmail

The Russian Federation tries to blackmail Europe and the world with the possibility of an accident at such a large-scale object with a radiation hazard. In the worst-case scenario when Zaporizhzhya NPP is blown up **Ukraine, Europe, and Russia itself become affected**.

The highest concentrations of radioactive aerosols will be observed in the near zone with a radius of **50-100 km** in all directions from the emission source. Significant concentrations of radionuclides may reach **Kyiv and Donbas**. In case of an accident at the ZNPP, the radiation cloud could, except for Ukraine, affect **Poland, Belarus, the Baltic states**, as well as the border regions of **Russia** - Belgorod, Rostov, Kursk, as well as the **Crimea** annexed by Russia. That will depend on the wind and luck. In case of an accident, the nearest territory will be **unfit for human life**. It will affect health of the population and no one will be able to live on the territory for a long time.

**Do we want to rely on the mercy of fate? Or do we rather endeavor to make our destiny ourselves? Lack of Russian prudence may cost the lives of many.**



**Blackmail is a lose-lose situation.** Manipulation will be successful only if the opponent is so frightened that he will be ready to accept any conditions. Otherwise, blackmail is **doomed to failure** and entails more negative consequences for the initiator of the blackmail.



While trying to force Ukraine to return to the negotiation table and use ZNPP to create an influential position, Russian leadership made **another mistake** in assessing the firm determination of Ukrainians to resist following the Kremlin written scenario. It is now obvious that by officially announcing the threat, Russia put itself into a position where it will either have to retreat showing its threat is an **empty phrase** or carry the threat out. In the latter case, it will result in chaos where **practical benefit is absent** for the author of blackmail. It is unlikely that the ultimate goal of the war is transformation of Ukraine into a radioactive desert because then the Russian narrative about the protection of the Russian-speaking population and children of Donbas would be **irrelevant**.

That is why undermining or blackmailing to undermine the nuclear power plant is completely **reckless**, yet tactically useful as a supplement to existing strategy.

#### 4. Control over the Ukrainian energy system

60% of Ukraine's electricity is generated by nuclear power plants, and the seizure of the Russian ZNPP weakens the Ukrainian energy system. The Russians may also consider the scenario of **disconnecting** the plant from the Ukrainian power system and the **theft** of Ukrainian electricity\*

#### 5. Acts of sabotage, panic, and mass migration

While at the station, Russia carries out various **acts of sabotage** as well as creates **panic** and **mass migration** of the population. During the arrival of the IAEA mission to the Zaporizhzhia NPP, the Russians convinced the representatives of the mission that not Russian combat units, but radiological, chemical, and biological protection troops were at the station. The occupiers also hypocritically blamed the Ukrainian side for the shelling. "It was a circus," comments an employee of ZNPP.

#### Russian military object and its consequences



Indeed, Zaporizhzhya NPP has recently been turned into a **Russian military object**, which is **unacceptable** for an enterprise with nuclear potential. The interaction of explosive substances with radioactive fuel is a direct way to a **global catastrophe**.

The Counter-Disinformation Center at the National Security and Defense Council of Ukraine reports that "the Russians organized a warehouse of ammunition and military equipment on the territory of the ZNPP, and they continue to shell the station... On August 5, Russian invaders damaged a high-voltage line, communication cables, and a roof, windows, and walls of the storage. On August 11, a hit was recorded near the welding station and the storage of radiation sources, the nitrogen-oxygen station, and the integrated backup unit were significantly damaged".

On the morning of September 1, due to a Russian mortar fire, the Zaporizhzhya NPP's emergency protection shut down operating unit No. 5. The operating unit was disconnected and the station was de-energized for the

second time in the last 10 days. Although on September 2, Unit No. 5 was reconnected to the power supply, the occupiers **did not hesitate to start shelling once again**. Acting in such a way the Russian army seeks to force Ukraine to surrender, in exchange for the preservation of the facility on which Ukrainian energy security depends.

"The Russian military and political leadership are not ashamed to present to the world that they are carrying out **nuclear terrorism** and **placing military equipment** on the territory of a working nuclear plant," Ukrainian Ombudsman Dmytro Lubinets said. "The occupiers are detaining, torturing, and killing workers of the Zaporizhzhya NPP. This is not only a war crime against the civilians but also a violation of the principles of nuclear safety, one of which is the preservation of the safety of the team in charge of the facility."

What is more, the accident on the ZNPP may be caused by **Russian negligence**. The occupiers do not know how to maintain such an enterprise, while the treatment of Ukrainian personnel can **hardly be called tolerable**. The frivolous actions of Russia may lead to **blackouts** in the southern regions of Ukraine and the **scarcity of energy** for its residents.

### International reaction

At the same time, Russian threats only lead to international mobilization of efforts against nuclear terrorism. An anti-Russian coalition of at least 42 countries is forming worldwide. The **IAEA monitoring mission to the Zaporizhzhya NPP** confirmed that shelling can damage vital equipment and lead to an **unlimited release of radioactive materials**. It is also said that all parties must agree to create a protective zone around the nuclear power plant to avoid damage. However, is it possible to agree with Russia that shelled the territory even during the visit of IAEA? It is difficult to answer.



Unfortunately, the IAEA mission **has failed** to introduce any effective and practical mechanism to resolve the situation. The IAEA also did not manage to comply with the agreement to do its best for independent mass media to enter the station. The media representatives were stopped at a checkpoint by the Russian military and were not allowed to advance further.

**In fact, the Kremlin marked a new page in the history of terrorism, openly threatening the world with a nuclear catastrophe. After all, for the first time in history, the Russian occupiers turned a civilian nuclear facility into a military target and a place to deploy their army. Russia recognizes the impossibility of achieving any significant success in the war against Ukraine without nuclear blackmail.**

What will happen next? Either the international community will develop a clear mechanism to avoid the worst scenario, or this scenario will become a reality. And this reality may come the next minute. **Russia is to blame but inertia should not be tolerated as well.** We need to think about whether we want another nuclear disaster in the pages of the history textbook. If not, we need to act. Now. "It is out of my business" thoughts are intolerable because **there is so much at stake: territory that will be non-fertile, grain that will no longer be exported, people that will endure hardships, and the general world crisis that will only deepen.**

**It is up to us. To act. Act now.**

\* At the time of publication of the paper, due to a fire caused by shelling the last line that connected the station to the energy system of Ukraine was turned off. The sixth power unit was unloaded and disconnected from the network.