



Policy Brief

CHERNOBYL LEGACY AND RUSSIA'S WAR IN UKRAINE: HOW SHOULD NUCLEAR SAFETY AND RISK APPROACHES CHANGE?

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Contributors:

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- the comprehensive and rigorous analysis of the impact of and responses to COVID-19 in Belarus;
- the analysis of social, economic, political, cultural and historical issues which shape contemporary Belarus and which can inform external understanding;
- engagement, wherever possible, with domestic stakeholders;
- the production of timely and reliable evidence in response to both real domestic policy needs but also external stakeholder initiatives; and
- the communication of evidence in ways that are useful to, and usable by, policy-makers, national and international civil society, the media and other non-academic stakeholders.

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Executive Summary

This policy brief offers a recap of the discussion held on 21 April 2022, at the webinar jointly organised by the Oxford Belarus Observatory (OBO), the Research Centre of the Office of Sviatlana Tsikhanouskaya (OST) and GLOBSEC in cooperation with [NGO Ecohome](#) (Belarus). The discussion focused on the recent developments in Chernobyl and Zaporizhzhia nuclear sites with the Russian invasion of Ukraine. International mechanisms for nuclear safety and how they worked within the context of the Russian invasion of Ukraine were examined. The policy brief emphasises that Russia's invasion of Ukraine poses an unprecedented challenge to the international nuclear power safety mechanisms and agreements. It also fueled debates on alternative and less risky energy sources across Europe. Finally, the policy brief contends that the Chernobyl Power Plant should be considered in the context of being a cultural and historical legacy, and not only in terms of nuclear safety and security. In this context, it is suggested that the looting by the Russian army in Chernobyl is not only criminal, it is also hazardous, as they stole not only expensive equipment but also the priceless artefacts that are part of the knowledge base of this important heritage site.

Background

Russia's war against Ukraine has shattered the most important international mechanisms for nuclear safety control. The seizure of two Ukrainian nuclear power plants, including Chernobyl, and the subsequent looting of the latter, demonstrates the ineffectiveness of international organisations and agreements in mitigating the radiation risks associated with military attacks on nuclear power plants. An effective renewed international nuclear safety system has yet to be developed.

Nuclear power plants, which store large amounts of highly hazardous spent nuclear fuel (SNF), became not only a target but also provided military footholds for the Russian army for the first time in history. The Chernobyl nuclear power plant (ChNPP) has again found itself at the epicentre of events that could result in a new radiation disaster on a scale greater than 1986 and Fukushima. Russian troops deactivated the radiation monitoring systems at the captured stations, cut the power to the ChNPP several times, and carried out active military operations in the exclusion zone, including in the heavily polluted Red forest. As a result of ongoing shelling, the International Atomic Energy Agency (IAEA) warning system for the state of nuclear materials at the seized nuclear power plants has been disabled.

Politicians and the public, on the other hand, draw opposing conclusions from the current situation. While some leaders proclaim the need for new nuclear power plants, substantial parts of civil society across the world believe that the situation in nuclear energy, which has

worsened as a result of the Russian invasion of Ukraine, demonstrates new risks and the need to scale back existing projects.

What is happening at Ukraine's nuclear power plants during the war? How do the existing institutions for monitoring the safety of nuclear facilities function and should they be reformed? How can and should approaches to regional security change? How should politicians and civil society in Belarus, Ukraine, and other countries respond to new radiation challenges and threats??

These and other questions were discussed at this expert webinar and the present policy brief is based on this event, which was moderated by Alena Kudzko, Vice President and Director of GLOBSEC Policy Institute. The speakers of the event included **Tatyana Novikova**, campaigner, specialist in Sustainability, Belarusian anti-nuclear campaign, Ecohome; **David Marples**, distinguished Professor of History, University of Alberta; **Olexi Pasyuk**, Deputy Director of 'Ecoaction' and **Dr Eglė Rindzevičiūtė** of the Kingston University London.

Analysis of the issue

It has long been argued that existing institutions and mechanisms for nuclear safety remain ineffective and that new ones should be developed. Experts and activists have been calling for a reconsideration of our reliance on nuclear energy as a way to become more energy independent. In that context, the Russian invasion of Ukraine presents a new set of challenges. It also created a new set of questions, which this policy brief reflects. How should existing international mechanisms and institutions for nuclear safety work to effectively respond to regional security challenges regarding the safety of nuclear power plants? Should they be reformed?

The Chernobyl tragedy is foremost in this context as it created a huge impact and overall cost, including the displacement of thousands of people and widespread social and health costs. Moreover, from a technical point of view - in terms of phasing out nuclear technology - Chernobyl is also a story of failures. It was a failure not just in the sense that such an accident happened, but also in terms of the attempts to deal with its aftermath.

The Russian invasion of Ukraine added new complications to this context. When the Russian army captured the Chernobyl and Zaporizhia nuclear power plants, it became clear that they were waging a war without rules.¹ First, Russia's military operation at the Chernobyl nuclear power plant's site released dust into the air, risking the spread of radioactive pollution. Second, combat operations caused fires within the highly radioactive exclusion area, further spreading radioactive materials. The interruption of the power supply to the Chernobyl nuclear power

¹ The Russian army cut power supply when they captured the nuclear sites; they took hostages and used the plants as military footholds; they concentrated heavy equipment and weapons on the sites; damaged the radiation monitoring system; looted the offices and labs designated for radiation monitoring; and took expensive equipment from the Chernobyl plant.

plant as a result of hostilities increased the risks of a radiation incident in the storage facilities for highly radioactive spent nuclear fuel. The personnel of the Chernobyl nuclear power plant were held hostage, with no opportunity for proper rest or medication, which significantly increased the risks associated with human error. Third, it showed that Russia disregarded its international obligations. The Geneva Conventions, signed in 1949 (Article 56), to which Russia is a party, explicitly prohibit any military operations near nuclear power plants. It proves more problematic when it comes to the operating power plants —as witnessed at Zaporizhzhia— which is the largest nuclear power plant in Europe with six energy units. The latter is now under Russian control, but the NPP remains under Ukrainian jurisdiction. As a result, a question of responsibility and liability for potential damage caused by a radiation incident arises.

In summary, the war in Ukraine has brought the importance of nuclear safety starkly to the fore in conflict environments. The results of a major accident may be catastrophic as a release of radioactive materials into the air means an immediate risk to health - for employees and for people living in the neighbourhood - as well as to the environment. Its impact could be more widespread too, depending on the scale of the accident.²

International organizations and treaties on nuclear safety

It is clear that Russia, as a state, is responsible for its military activities and therefore for the events that have taken place at these nuclear power plants. However, an important additional question is whether the International Atomic Energy Agency (IAEA) has any responsibility in this case. This is because IAEA has a special mandate regarding nuclear weapons. As the monitoring system was damaged at the nuclear sites, IAEA could not observe and monitor what happened, which required further action. Also, IAEA could act within their power by posing this issue in front of the United Nations and Security Council and the General Assembly. IAEA should also, under its mandate, send inspectors (independent from Russia) to examine the situation on the ground. This would have helped to identify and document those who caused the damage and heightened the risks at these nuclear sites.

The situation is far from being well defined under the jurisdiction of the international conventions for nuclear safety. Thus the Vienna Convention on Civil Liability for Nuclear Damage suggests that in the case of an armed conflict, civil war, or in cases similar to a war, there is no liability under this Convention. This means the Convention is not relevant as it excludes from its jurisdiction who will be responsible for nuclear damage in case of an accident with a nuclear material release, happening as a result of military activities. On the other hand, the Geneva Conventions from 1949 (Article 56) state that nuclear power plants or nuclear electrical generating stations could not be objects of military attack. Further, paragraph five

² Such an accident might pose severe risks for several countries across Europe. Spent nuclear fuel, which might spread across a large area through wind, has about 100 artificial isotopes all of which are highly active and dangerous (such as americium and polonium).

states that the parties to the conflict shall avoid locating any military activities or targets in the vicinity of the works or installations mentioned in paragraph two. This means that Russia, by locating military equipment and arms around the nuclear power plants, violated paragraph five of the Geneva Conventions.

Existing international treaties are clearly insufficient to deal with the Russian army's military seizure of the two Ukrainian nuclear power plants and the risks that this poses. International organizations whose jurisdiction includes cooperation, information exchange, and control over fissile materials, primarily the IAEA and the UN, have failed to take appropriate, including urgent, actions within their powers to protect citizens of these organizations' member countries from radiation risks. The IAEA inspection arrived at the Chernobyl site only after the Russian troops had left and the Ukrainian side succeeded at resolving security issues caused by military operations. Europe's largest nuclear power plant, Zaporozhye, remains a source of high radiation risk, as Russian cruise missiles continue to fly low over it, part of its territory is mined, and the Russian army is stationed there with heavy weapons.

One of the reasons for the lack of a proper response to the situation is the absence of compliance and enforcement mechanisms in the aforementioned conventions and organizations.

Nuclear power plants as heritage sites

Nuclear safety remains at the heart of discussions around the nuclear plants and yet there is another aspect that requires further attention. Specifically, the military capture of Chernobyl must also be understood from the perspective of heritage, where heritage is understood as the ongoing attempts to cope with the legacies of the past. In that sense, Chernobyl could be approached as a radioactive “landscape scar” that the international community has been trying to heal over the last three decades. The most important project to date, the reactor safety project, was funded by the European Bank of Reconstruction and Development (EBRD) in 2016 at a cost of over €2 billion.³ Building the shelter to cover the Chernobyl exploded reactor was also the largest international collaboration around the building and infrastructural project of this scale and the largest engagement of the EBRD to date. Healing the scar of Chernobyl in its own right created not only a technical structure but also a cultural structure. It means one can almost look at the Chernobyl shelter as a monument to international pacification, healing, linked to the post-communist transition.

There has been an ongoing initiative proposed by a consortium of different agencies in Ukraine to list Chernobyl as a UNESCO World Heritage site. This was finally achieved in April 2021. Approaching Chernobyl as a heritage site essentially means two things. On the one hand, it represents a narrative of disaster; of the painful legacy the Chernobyl incident inflicted on

³European Bank for Reconstruction and Development. “Chernobyl: A Site Transformed”
<https://www.ebrd.com/what-we-do/sectors/nuclear-safety/chernobyl-overview.html>

Ukraine and Belarus. But it also tells a story of success; the start of the international community coming together to heal a scar and collaborate on nuclear safety. It is the most contaminated place on the globe, but it's also the place which is invested with emotions, with social relations and where the work of scientists and engineers from different nations came together in a very particular way.

In summary, the meanings of Chernobyl are layered. It is a sight of what is known as a difficult heritage, a heritage that reminds us of a painful past and a site about which there are no consensual narratives over a loss of the emergent sensual narratives. Chernobyl as a heritage site would be a remnant of a Soviet techno-scientific coloniality. It would be a material witness of a disaster that undermined the Soviet regime and the political potential of technology would be encapsulated in it. Once sheltered, Chernobyl emerges as a symbol of peace building and European integration in the 21st century. It is also a site that could be regarded as an archive and the research laboratory that enables scholars to study across the depths of the anthropocene, and hence the looting of the Russian army in Chernobyl mentioned in the previous section is particularly painful because it encapsulated not only the looting of expensive technology but also of the priceless artefacts that are part of the knowledge base and the historical archive. The evolving war in Ukraine has transformed Chernobyl into a military site, a hostage, signalling a new type of nuclear warfare.

Conclusions

The concerns about the safety and security of nuclear power plants were already apparent in 2014, when Russia invaded the East of Ukraine. As the Zaporizhzhya nuclear power plant was rather close to the conflict zone, experts and policy-makers raised serious concerns. The risks took a new turn with Russia's full-scale invasion of Ukraine. This policy brief discussed the role of international institutions and treaties from the perspective of nuclear safety and security in the situation when these nuclear power plants became the target of military operations. The brief has emphasised **three key points**: (i) even if it might seem that some of the existing regulations are suspended during war, it is actually of paramount importance to employ all available mechanisms and insist upon their implementation, if the aggressor is to be meaningfully held to account; (ii) communication and public participation in decision-making at the level of international organisations and agreements is also crucial - international organisations at the very least can serve as spaces for communication, but also can be instrumental in pressuring and lobbying to help avert potentially worse outcomes; (iii) it is important to look at the issue from various angles, including the cultural dimension.

Policy recommendations

1. The war in Ukraine should be considered as a critical turning point in terms of the discussion on safety and security of nuclear energy. The discussions on alternatives to nuclear energy should be taken seriously as expensive - and high risk - nuclear

technology with unresolved dangers could represent a waste of resources in a situation when there are cheaper and safer alternatives available.

2. The International Atomic Energy Agency (IAEA) should act more proactively by sending independent experts and inspectors to examine the situation on the nuclear sites in Ukraine and bring the issue to the United Nations to inform the international community and therefore help to provide protection for the Ukrainian NPP's, including with military means. The entire system of international nuclear safety should be reviewed.
 3. Chernobyl should be viewed and dealt with not only as a technical or military problem but also as a heritage site, subject currently to extreme stress. This reminds us that the looting of the Russian army in Chernobyl is painful because it was not only the looting of expensive technology but also of priceless artefacts that are part of the knowledge base in a heritage site.
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