

INFORMATION DIGEST

APRIL 01-07, 2024



Status of the Ukrainian nuclear power plants and the nuclear industry of Ukraine

- According to the JSC "NNEGC "Energoatom", on April 01-07, 2024, power units of Ukrainian nuclear power plants which are located on the territory controlled by Ukraine worked to meet the needs of the population and the country's economy.
- According to the International Atomic Energy Agency [IAEA], the IAEA teams at the Khmelnytsky, Rivne and South Ukraine NPPs as well as at the Chernobyl site reported that nuclear safety and security continues to be maintained, despite multiple air raid alarms over the past week. Maintenance in the unit 2 turbine hall at the Khmelnytsky NPP has been completed and the reactor has returned to nominal power. Unit 4 at the Rivne NPP remains in planned outage. The IAEA experts at the South Ukraine and Rivne NPPs rotated during this past week.

Current situation on Zaporizhzhya NPP

- According to the JSC "NNEGC "Energoatom" on April 4, 2024, at 10:06 a.m., as a result of Russian shelling, the 330kV off-side power supply line Zaporizhzhya TPP — Ferrosplavna, through which the temporarily occupied Zaporizhzhya NPP received power from the Ukrainian power system for house loads, has been disconnected. On April 6 at 18:09, thanks to the efforts of Ukrainian energy specialists, the operation of the Zaporizhzhya TPP - Ferrosplavnaya power transmission line was resumed. This line, together with the Zaporizhzhya NPP - Dniprovskaya line with a voltage of 750 kV, connects the ZNPP with the unified energy system of Ukraine and provides power to its needs. Before the Russian occupation, the ZNPP had four 750 kV and six 330 kV power lines available.
- On 7 April, a drone detonated on the territory of the Zaporizhzhya nuclear power plant. This was stated by the International Atomic Energy Agency (IAEA). The IAEA said that experts confirmed the physical impact of the drone attacks on ZNPP, in particular on 1 of the 6 reactors.
"One casualty has been reported. The damage at Unit 6 did not endanger nuclear safety, but it is a serious incident that could compromise the integrity of the reactor containment system," the IAEA said. "This is a clear violation of the basic principles of protection of Europe's largest nuclear power plant. Such reckless attacks significantly increase the risk of a major nuclear accident and must be stopped immediately," the IAEA Director General said.
- According to the IAEA, also before these latest events, the IAEA experts have continued to hear daily explosions over the past week, at various distances from



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the site. Since August 2022, the ZNPP has suffered eight events with a complete loss of off-site power, most recently in December last year. The 330 kV line was also disconnected for three weeks earlier this year, but the main 750 kV line remained available at that time.

- The IAEA team this week continued to conduct walkdowns at the site, including to some of the reactor units as well as the ZNPP inlet and discharge channels, where they also observed the cooling towers and their pumping station.
- At the waterworks facilities, the team was informed that the ZNPP cooling pond currently receives approximately 400 m³/h of water from the sprinkler ponds as well as from the discharge channel of the nearby Zaporizhzhya Thermal Power Plant. The water supplied from the eleven underground wells is providing enough cooling water for the six units in shutdown, but still not enough to maintain the water inventory in the ZNPP cooling pond.
- During a visit to the unit 4 reactor building the team observed the chemical analysis laboratory and the safety system rooms. No leaks or traces of boric acid were seen. But the experts noted what appeared to be some crystallised boric acid in one of the sump intakes during a visit to unit 1 sumps for the ECCS (Emergency Core Cooling System). Borated water is used in the primary coolant to help maintain nuclear safety functions. Although leaks may occur, prompt investigation, repair, and clean-up are crucial to prevent potential damage to any system important to nuclear safety.
- During the walkdowns over the past week, the experts were not granted access to the cooling pond isolation gate, a location the IAEA last saw in November 2023, nor to the western part of the turbine hall of unit 6. As reported previously, the ZNPP has not provided timely and appropriate access for the IAEA experts to all areas that are important to nuclear safety and security.

Current situation on Chornobyl NPP and in the Exclusion Zone

- On April 01-07, 2024, the radiation situation at the ChNPP site was without changes. The monitored parameters of the equipment were within the boundaries set by the technological regulations. Operating personnel continues to ensure nuclear and radiation safety.

Current situation on The subcritical Neutron Source installation

- According to the IAEA, on April 4, 2024, Ukraine's national regulator, the State Nuclear Regulatory Inspectorate of Ukraine (SNRIU), informed the IAEA that a research and development facility in the country's north-east – used before the war to produce radioisotopes for medical and industrial applications – had once again lost off-site power due to shelling. The facility now relies on emergency diesel generators, as it did during a previous week-long outage, from 22-29 March 2024. The on-site radiation situation is within the normal limits, SNRIU said.
- The subcritical Neutron Source installation, located in the Kharkiv Institute of Physics and Technology (KIPT), was transferred to a deep sub-critical state at the start of the conflict, and its radioactive inventory is low. In November 2022, an IAEA safeguards and nuclear security expert mission found that the facility had been heavily damaged by shelling, but without any indication of radiological



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release or diversion of declared nuclear material.

- "As this facility has been shut down since the start of the armed conflict more than two years ago, we do not currently expect the situation to have any consequences for public safety. But it also underlines the potential risks to nuclear safety and nuclear security during the military conflict and we will continue to monitor the situation at the facility," Director General Grossi said.

War in Ukraine

- On April 7, 2024, is the 774 day of the resistance Ukraine to the russian military invasion.
- According to the General Staff of the Armed Forces of Ukraine [AFU], the situation in the area of the operation of the Defense Forces of Ukraine remains difficult. The enemy, using air superiority, missiles and artillery ammunition, is trying to achieve its goal of entering the administrative border of Donetsk region. Moreover, russians continue offensive actions day and night, using assault groups with the support of armored vehicles. Over the last day, 76 combat engagements took place. Most enemy attacks were repelled in the Bakhmut and Novopavlivka sectors. The situation also remains tense in the Lyman, Orikhov, and Kherson directions.
- The russia's use of chemicals in ammunition has become systematic at the front, which violates the Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on their Destruction, as well as the laws and customs of warfare. In March alone, the Ukrainian defense forces and mobile groups recorded more than 370 cases of shelling with the use of chemicals in shells. The main method of delivery is the use of unmanned aerial vehicles, mainly with the discharge of K-51 and RG-VO grenades.
- **Shelling of Ukraine**
In total, on April 7, 2024 the enemy launched 7 missile and 104 air strikes, fired 108 times from multiple launch rocket systems at the positions of Ukrainian troops and populated areas. Unfortunately, attacks have resulted in civilian casualties and injuries.
- In recent weeks, russia has destroyed 80% of Ukrainian thermal power plants. Ukrainian Prime Minister Denys Shmyhal said this in an interview. According to the Prime Minister, this is both hydropower and coal power. The russians continue to fire missiles at Ukrainian energy facilities, destroy transformers and generators. Ukraine is cooperating with its allies, creating a decentralized energy supply system, Shmyhal added.
- At night of April 7, the russian occupiers attacked Ukraine again, using 24 Shahed UAVs. The Ukrainian air defence forces destroyed 17 attack UAVs. At night of April 6, 2024, the russian occupiers attacked with 32 Shahed-131/136, as well as six missiles of various types. The Ukrainian Defence Forces shot down two Kh-101/Kh-555 cruise missiles, a Kalibr cruise missile, and 28 Shahed-131/136 strike UAVs. On the night of 5 April 2024 russia attacked Ukraine at night with 13 Shaheds in Zaporizhzhya, Odesa and Dnipropetrovsk regions.
- russian terror against the city of Kharkiv does not stop. The russian army destroyed almost the entire municipal and private energy infrastructure of



Kharkiv. It is very important to strengthen air defense for Kharkiv region, partners can help us with this, - Zelenskyy said.

- At night on April 7 russian troops struck again at the city and the region. Residential buildings and civilian infrastructure were damaged.
- At night April 6, Kharkiv was attacked with S-300s. The enemy fired twice again, targeting residential high-rise buildings, kindergartens and civilian infrastructure. The second attack started less than half an hour after the first. A petrol station was completely destroyed and power lines were damaged. The death toll from the nighttime russian strikes on Kharkiv has risen to seven. The number of wounded is 11.
- As a result of russian attacks on April 5 on a residential area of the city of Zaporizhzhya, four people were killed and 20 wounded. On April 2, russian troops launched a rocket attack on the city of Dnipro: 18 people were injured, including 5 children
- **Situation at the front**
- **The North direction.** The operational situation in the Volyn and Polissia sectors remains unchanged. In the Siverskyi and Slobozhanskyi directions, russia maintains a military presence in the border areas, conducts subversive activities to prevent the deployment of Ukrainian troops to threatened areas, and increases the density of minefields along the state border.
- **Hostilities in the East.** russian army intensifies activity in Bakhmut and Avdiivka sectors, keeps trying to break through Ukrainian defences. In separate directions, they try to conduct assaults on foot, in waves, from a platoon to a company, sometimes a battalion.
- A particularly difficult situation has developed in the Bakhmut direction in the areas east of Chasiv Yar and Klishchiivka. The settlement Chasiv Yar remains under Ukrainian control.
- russian military did not conduct any offensive (assault) actions in the Kupyansk sector. In the Lyman sector, Ukrainian troops repelled two enemy attacks, where the enemy tried to break through the defences of Ukrainian troops.
- **The situation in the South.** Counter-battery fighting continues in the operational area of the Southern Defence Forces. russian army is determined to drive Ukrainian units out of their positions. The occupiers do not stop aerial reconnaissance, put pressure with artillery shelling, use a large number of attack drones of various types along the entire front line, and add aviation to the Orikhiv direction.
- russians are looking for new tactics on left bank of Kherson region: attacking in small groups from different directions. In the Orikhivskyi sector, the enemy attacked the positions of Ukrainian defenders 5 times. Ukrainian soldiers continue to take comprehensive measures to hold and strengthen their positions.
- The humanitarian crisis in the social and economic spheres is escalating in the occupied part of the Zaporizhzhya region. This is reported by the National Resistance Centre. As noted, among the main factors that negatively affect the living standards of the local population are the constant growth of unemployment, high prices for consumer goods and everyday demand, as well as salary delays for employees of local "enterprises", etc. Employees often complain that salary arrears



can reach up to two months without valid reasons. According to the NRC, the rapid increase in prices for goods is due to the presence in the occupied territories of representatives of the Russian occupation forces and other persons who were sent on a so-called "business trip" from the territory of the Russian Federation with appropriate financial support, which far exceeds local norms.

Sources: t.me/V_Zelenskiy_official, t.me/energoatom_ua, Centre for Strategic Communication, Ministry of Defense of Ukraine, the National Police of Ukraine [censor.net](https://www.censor.net), [Ukrainska Pravda](https://www.Ukrainska Pravda), [radiosvoboda.org](https://www.radiosvoboda.org), [eurointegration.com.ua](https://www.eurointegration.com.ua)



On the night of 4 March, Russian invaders attacked the city of Kharkiv with several waves of "shaheds". In a densely populated area of Kharkiv, a total of four UAVs hit civilian infrastructure objects.

Residential buildings, shops, trade pavilions, pharmacies, cars, and a medical facility were damaged. The attack killed 4 people (three rescuers and a 68-year-old woman). 12 people were injured (one rescuer, one police officer, one nurse and 9 other civilians).



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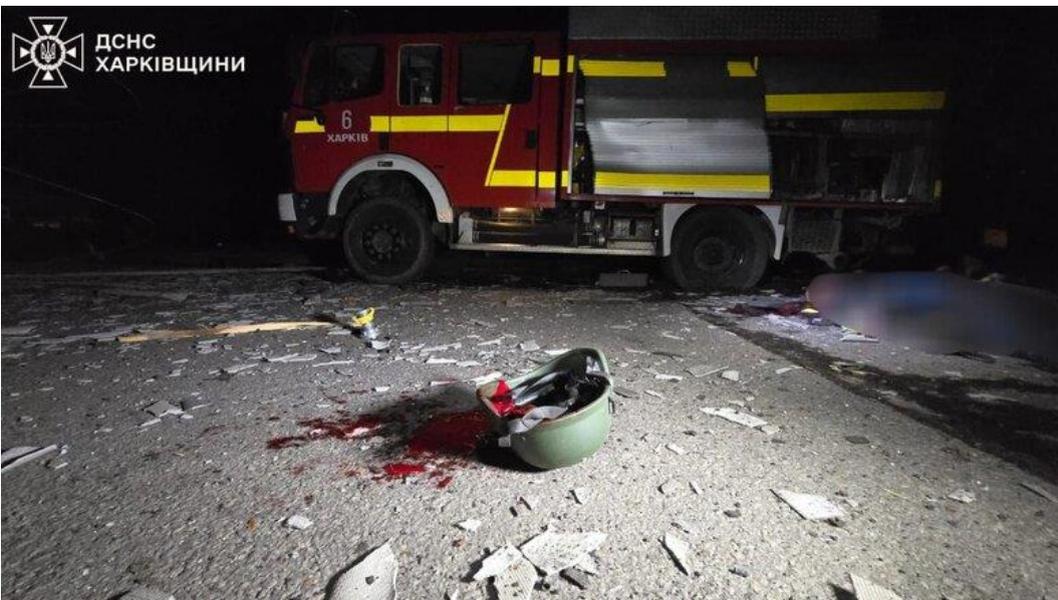


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DEAR COLLEAGUES

THE UKRAINIAN NUCLEAR SOCIETY IS ACTIVELY ENGAGED IN VOLUNTEER ACTIVITIES, HELPING OUR COLLEAGUES FROM NUCLEAR POWER PLANTS, REFUGEES FROM THE ZAPORIZHZHIA NPP, AS WELL AS OUR MEMBERS WHO JOINED THE ARMED FORCES TO DEFENDED OUR COUNTRY.

SUPPORT THE ANS-ENS UKRAINIAN NUCLEAR WORKERS HUMANITARIAN FUND

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