

INFORMATION DIGEST

MARCH 18-20, 2024



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

- According to the JSC "NNEGC "Energoatom", on March 18, 2024, seven power 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, the IAEA experts present at the Khmelnytsky, Rivne and South Ukraine NPPs as well as at the Chernobyl site have reported that nuclear safety and security is being maintained despite the challenging wartime circumstances, including the frequent sound of air raid alarms at some of the facilities.
- In addition, the IAEA experts at the Rivne, South Ukraine and Khmelnytsky NPPs all rotated last week.

Current situation on Zaporizhzhya NPP

- According to the JSC "NNEGC "Energoatom" on March 18-20, 2024, the Zaporizhzhya NPP received power for its in-house needs from the energy system of Ukraine. The exposure dose rate of gamma radiation in the area where the Zaporizhzhya NPP complied with current standards.
- Ukraine's Zaporizhzhya Nuclear Power Plant (ZNPP) has regained access to its only remaining back-up power line, following an outage of more than three weeks.
- According to the International Atomic Energy Agency, the ZNPP's connection to the 330 kilovolt (kV) off-site power line was restored shortly after 6pm local time on Thursday, providing a much-needed buffer for the plant which has suffered eight complete loss of external power events over the past year and a half. The 330 kV line was lost on 20 February due to an incident on the other side of the Dnipro River, leaving the ZNPP entirely dependent on its only 750 kV line. Before the conflict, Europe's largest nuclear power plant (NPP) had a total of ten power lines available, four 750 kV and six 330 kV lines.
- The IAEA experts at the site, who crossed the frontline to travel to and from the plant as part of a scheduled rotation last week, have continued to conduct walkdowns and assess nuclear safety and security at the ZNPP. IAEA experts stationed at the site have continued to report on explosions and other indications of military activity not far from the ZNPP.
- They reported that the ZNPP's four diesel steam generators have resumed operations to treat liquid waste. These recently-installed steam generators were previously operating in early February, but were then switched off for just over a



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month until a sufficient volume of liquid was ready to be treated.

The off-site diesel fuel tanks store additional fuel for the emergency diesel generators (EDGs) for the six reactor units at the ZNPP. Together with the fuel stored at each EDG on-site, the plant currently has enough diesel fuel for more than 20 days operation of the EDGs in the case of a total loss of off-site power.

- As part of ongoing efforts to monitor the well-being of personnel, the IAEA team was briefed by an on-site psychologist on the continuous evaluation of all staff, with some additional assessments for operators of the main reactor control rooms and turbines.

The IAEA experts also observed simulator training of operating staff in the training center, where they held discussions with the ZNPP training center and Rostekhnadzor, the nuclear safety regulatory body of the Russian Federation, about the process that staff must follow to obtain their operating “authorizations”.

The IAEA experts were informed that staff are being trained considering the present situation at the ZNPP, with all reactor units either in cold or hot shutdown, as well as the current status of the external power lines and cooling water. The ZNPP says it has enough authorized operating staff to maintain the reactor units in their current shutdown states. “The staffing situation at the plant remains a vital issue for nuclear safety and security that we will continue to monitor closely,” Director General Grossi said.

Current situation on Chernobyl NPP and in the Exclusion Zone

- On March 18-20, 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.
- According to the International Atomic Energy Agency, as part of the supply of equipment to support nuclear safety in Ukraine, alpha and beta radiation counting systems, portable radio-communication equipment and personal protective equipment reached the Chernobyl and the Rivne NPP site last week. The equipment was procured using funding from the European Union and the United Kingdom.

War in Ukraine

- On March 20, 2024, is the 756 day of the resistance Ukraine to the Russian military invasion.
- According to the General Staff of the Armed Forces of Ukraine [AFU], the operational situation in eastern and southern Ukraine remains difficult. Defence forces repelled attacks in 7 directions: Avdiivka, Kupiansk, Lyman, Bakhmut, Novopavlivka, Orihiv, and Kherson directions. About 70 - 80 combat engagements take place per day there.
- **Combat actions in the East.** Russian forces continue to exert pressure along the entire contact line, most actively on the Novopavlivka, Avdiivka and Bakhmut fronts in the East. They launch about 70 missile strikes and airstrikes, bombard



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the positions of Ukrainian troops, and populated areas 110 times with multiple-launch rocket systems (MLRS) per day.

But, currently the advantage of drones is on the side of the Armed Forces of Ukraine, in addition, attention is focused on conducting counter-battery combat. Drones give good results. This allows reducing the enemy's artillery potential and maintaining a certain parity.

- **Situation in the North.**

- The operational situation remains unchanged. No signs of the formation of enemy offensive groups were detected. Also, there are no risks of a breakthrough at the Russian border in Sumy Oblast, where the number of Russian attacks has increased 2-3 times since 11 March 2024. Russian troops mostly utilise guided bombs, artillery, and Lancet drones there. Between 40% to 50% of residential buildings have been destroyed in border settlements. The Ukrainian Armed Forces are currently evacuating people from the most heavily attacked border points within a 5-kilometre zone.
- The Defence Forces of Ukraine are strengthening the fortifications of the first, second and third defence lines in Sumy Oblast, in the north of the country. Although, the directions in the north intensify in "maximum proximity" to the border, it is currently impossible to strengthen the border with the Russian Federation, since any engineering group will be immediately "demolished" by Russian shelling.
- **Situation in the South.** On the Orikhiv front, Zaporizhzhya region, Russian troops attack the positions of Ukrainian defenders.
- On the Kherson front, the Russians persist in their intention to drive Ukrainian troops from their footholds on the Dnipro River's left (east) bank.
- About 140 settlements in Chernihiv, Sumy, Kharkiv, Luhansk, Donetsk, Zaporizhzhia, Dnipropetrovsk, Kherson and Mykolaiv oblasts came under Russian artillery fire.
- Four people were injured as a result of Russian strikes on civilian infrastructure in Kherson Oblast on March 18. Residential buildings, cars, petrol stations, and a car service station were also damaged. The Russians attacked Ukraine with 22 Shahed drones on the night of 17-18 March, but Ukraine's air defence managed to destroy 17 of them. Explosions occurred in the cities of Kryvyi Rih and Kremenchuk, Poltava Oblast, and in Khmelnytskyi Oblast. Wreckage from a Russian Shahed drone has fallen on a five-storey building in Kryvyi Rih, causing a fire. Meanwhile, private industrial facilities and residential buildings were damaged in Kirovohrad Oblast as a result of a nighttime drone attack.
- On March 20, the Russian army shelled the city of Kherson region with drones and artillery. Three people were injured.
- Also, on March 20, the Russian army used an X-35 missile to strike the city of Kharkiv. An 8-story building and a production shop were damaged. The death toll from the Russian missile attack on Kharkiv increased to 5. Eight people were injured.
- On the morning of 21 March, the Russians attacked the Ukrainian capital Kyiv and its region with cruise and ballistic missiles. Air defence forces destroyed all the targets. The fragments of air targets damaged private houses, farm buildings, and



vehicles in several districts of the region. The shelling injured 10 people, including a child. Seventy nine people were evacuated. In the Kyiv region, shrapnel injured two people.

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, Ukrainska Pravda, radiosvoboda.org, euointegration.com.ua



Consequences of the missile attack on the Kyiv and it's region on March 21: 10 people were injured, 79 people were evacuated.



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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

WE ARE VERY GRATEFUL FOR ANY HELP AND SUPPORT!

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Support Ukraine's nuclear workers and their families impacted by war.

