# RUSSIA-UKRAINE INVASION NUCLEAR TRANSGRESSIONS

A TIMELINE OF THE TRANSGRESSIONS AGAINST INTERNATIONAL NORMS AND STATE PRACTICE IN REGARDS TO THE TREATMENT OF NUCLEAR POWER PLANTS DURING ARMED CONFLICT

### MARCH 4, 2022

Russian forces seize control of the Zaporizhzhia Nuclear Power Plant, the largest in Ukraine and all of Europe. Some of the plant's facilities were damaged by Russian shelling.

## **APRIL 28, 2022**

The IAEA <u>probed</u> a Ukrainian report that a missile had flown directly over the South Ukraine Nuclear Power Plant near Yuzhnoukrainsk. Ukraine's government has regularly accused Russia of sending rockets directly over Ukrainian nuclear plants.

## MAY 20, 2022

Russia's deputy prime minister, Marat Khusnullin, <u>stated</u> that Russia would seek to integrate the Zaporizhzhia Nuclear Power Plant with Russia's energy system if Ukraine refused to pay for the plant's electricity. Russian occupying forces later <u>told</u> heads of the plant's subdivisions that Russia wanted to put the power plant under Rosatom control by September 1.

## JUNE 2, 2022

Following the Russian withdrawal from the Chernobyl Exclusion Zone, the plant's staff <u>reported</u> that more than \$135 million worth of equipment was missing from the power plant, with nearby nuclear labs also ransacked by Russian forces.

# JUNE 29, 2022

Russian occupying forces <u>planned</u> to drain the cooling pools at the Zaporizhzhia Nuclear Power Plant in order to search for alleged weapons belonging to workers. According to Ukraine, several plant workers were detained and tortured to coerce weapons that they had dropped some weapons, explosives, or shells into the concrete basins of the cooling pools. In July 2022, Enerhodar's mayor <u>alleged</u> that Russian occupiers tortured the power plant's diver to death

# FEBRUARY 24, 2022

Russian troops take control of the Chernobyl nuclear power plant. Russia would eventually <u>transfer</u> control back to Ukraine a month later. The IAEA added that they were not able to confirm <u>reports</u> of Russian forces receiving high doses of radiation while in the Chernobyl Exclusion Zone. Radiation detectors would only <u>return</u> online in June 2022.

## MARCH 26, 2022

Russian troops fired on the nuclear research subcritical facility in Kharkiv. Further damage would be inflicted on the facility the following June.

### **APRIL 30, 2022**

The IAEA <u>confirmed</u> that a group of eight Rosatom specialists had been sent to the Zaporizhzhia Nuclear Power Plant to demand daily reports on confidential issues from its management.

# MAY 27, 2022

The State Regulatory Inspectorate of Ukraine (SNRIU) <u>claimed</u> that the Zaporizhzhia Nuclear Power Plant and the nearby city of Enerhodar contain Russian military forces and weapons, along with active fighting taking place nearby.

# JUNE 23, 2022

<u>According to</u> reports, Russian forces have fortified the outside of the plant with trenches and heavy artillery. This raised concerns about the security of nuclear material at the site. Later <u>reports</u> were that Russia garrisoned the plant with tanks, rocket launchers, and armored personnel carriers.

# JULY 1, 2022

Energoatom announced that it re-established its connection to surveillance systems at the Zaporizhzhia Nuclear Power Plant. This was the second time communications had been

# SEPTEMBER 5, 2022

Ukrainian energy minister Herman Halushchenko <u>stated</u> that a fire resulting from ongoing shelling around the Zaporizhzhia Nuclear Power Plant severed the plant's last connection to the reserve line that provided its only source of outside power.

# **SEPTEMBER 16, 2022**

The IAEA Board of Governors <u>adopted</u> a resolution calling on Russia to cease all actions against the Zaporizhzhia Nuclear Power Plant, deploring Russia's persistent violent actions against nuclear facilities in Ukraine.

# **OCTOBER 3, 2022**

The head of the Zaporizhzhia Nuclear Power Plant, Ihor Murashov, <u>was released</u> after being arrested by Russian forces. <u></u> Murashov was <u>allegedly</u> blindfolded and detained in an undisclosed location by the Russian occupiers. lost with the plant due to the cutting off of all Ukrainian mobile operators by Russian occupation

# **SEPTEMBER 11, 2022**

Ukraine <u>announced</u> they would power down the Zaporizhzhia Nuclear Power Plant's sixth and final working reactor following weeks of shelling around the area.

# **SEPTEMBER 19, 2022**

According to Ukrainian officials, a powerful Russian missile <u>exploded</u> less than 900 feet from the reactors of the South Ukraine Nuclear Power Plant. While there was no damage to essential safety equipment, the blast forced a shutdown of one of the plant's hydraulic units.

# **OCTOBER 5, 2022**

Russian President Vladimir Putin <u>ordered</u> his government to take control of the Zaporizhzhia Nuclear Power Plant. Russia's move to seize complete control of the power plant came as Russia sought to formally annex the Zaporizhzhia region as Russian territory.

### **OCTOBER 19, 2022**

The IAEA <u>initiated</u> negotiations for a safety zone to be instated around the Zaporizhzhia Nuclear Power Plant. However, Ukrainian Energy Minister Herman Halushchenko <u>stated</u> that he <u></u>saw no signs of progress on said deal. Additionally, Russian Deputy Minister of Foreign Affairs Sergei Ryabkov <u>said</u> that any deal to demilitarize the plant is impossible.

# **NOVEMBER 3, 2022**

The Zaporizhzhia Nuclear Power Plant <u>was disconnected</u> from the Ukrainian power grid again as a result of Russian shelling.

### **NOVEMBER 28, 2022**

According to Ukraine's military, Russian forces <u>banned</u> Ukrainian technicians from the Zaporizhzhia Nuclear Power Plant if they refused to sign contracts with Rosatom.

## **FEBRUARY 10, 2023**

Ukraine <u>informed</u> the IAEA that two of its operating nuclear power plants, Rivne and South Ukraine, had reduced power output as a precautionary measure due to renewed shelling of <sup>-</sup> the country's energy infrastructure. Additionally, the instability of the electrical grid also caused one of the reactor units at the Khmelnitskyi Nuclear Power Plant to shut down.

# MARCH 7, 2023

Ukrainian nuclear utility Energoatom <u>claimed</u> that Russian soldiers had set up machine guns on the grounds of the plant, placed military equipment in engine rooms, and even carried out indoor welding work that had set off fire alarms.

# NOVEMBER 24, 2022

nuclear activity.

Following renewed Russian missile strikes damaging Ukraine's energy infrastructure, Ukraine <u>disconnected</u> all four of its operating nuclear power plants from the power grid. Missiles <u>knocked</u> one plant offline in Khmelnitskyi while a second plant in Rivne was forced to reduce energy produced after Russian strikes damaged the power lines that connect it to the national grid.

Following Russian accusations that Ukraine was building a radioactive "dirty bomb", inspectors from the IAEA checked 3 Ukrainian facilities and <u>found</u> no evidence of undeclared

## **JANUARY 20, 2023**

**NOVEMBER 3, 2022** 

Ukrainian Energy Minister Herman Halushchenko <u>stated</u> that Russian forces continued to build military fortifications around the nuclear power units at the Zaporizhzhia Nuclear Power Plant. Additionally, about 1,500 Ukrainian specialists have been barred from entering the facility because they refused to sign contracts with Rosatom.

# **FEBRUARY 18, 2023**

Two Russian cruise missiles <u>narrowly avoided</u> hitting the Pivdennoukrainska nuclear plant. Energoatom said that the threat of a disaster was high and called the act "Russian nuclear terrorism".

## MARCH 9, 2023

IAEA Director General Rafael Mariano Grossi <u>announced</u> that the Zaporizhzhia Nuclear Power Plant lost all off-site power when its remaining 750 kilovolt line was disconnected.

### MARCH 27, 2023

Ukraine <u>expressed</u> fears its Zaporizhzhia Nuclear Power Plant could face a shortage of water to cool its reactors because

Russian forces let water out of the Kakhovka reservoir that supplies the plant.

## **APRIL 28, 2023**

IAEA Director General Rafael Mariano Grossi <u>reported</u> that IAEA staff at the Zaporizhzhia Nuclear Power Plant had to take shelter after missile attack warnings, with the sound of continued shelling in the distance as military activity continued.

### MAY 26, 2023

Ukraine's defense ministry <u>claimed</u> that Russia was planning to simulate a major accident at the Zaporizhzhia Nuclear Power Plant to try to thwart the Ukrainian counteroffensive. The ministry's intelligence directorate said Russian forces would soon shell the plant and announce a radiation leak, which would force an investigation by international authorities.

## JULY 7, 2023

Russian operators at the Zaporizhzhia Nuclear Power Plant continue to ignore requests from both Ukraine and the IAEA to bring the last partly-operational reactor under their supervision into a state of full shutdown.

## APRIL 14, 2023

Two landmines <u>exploded</u> near the Zaporizhzhia Nuclear Power Plant, although IAEA Director General Rafael Mariano Grossi said it was not clear what had caused the landmine blasts outside the plant's perimeter fence. Grossi did add that IAEA experts at the site continued to hear regular shelling in the area.

# MAY 3, 2023

The State Nuclear Regulatory Inspectorate of Ukraine <u>claimed</u> that Russia placed military equipment and explosives in the turbine compartment of power unit No. 4 at the Zaporizhzhia Nuclear Power Plant

# MAY 30, 2023

The Kharkiv Institute of Physics and Technology was heavily damaged by repeated Russian strikes. Evaluations stated that many buildings on the site were beyond repair.

# **OCTOBER 12, 2023**

After multiple requests over the last months, a team of IAEA experts was finally able to <u>access</u> the roof of unit 2 at the Zaporizhzhia nuclear plant and saw no sign of mines or explosives. Additionally, the team was able to see parts of the roofs of units 1 & 3 and did not see signs of mines or explosives. This was the first roof inspection since August, when experts had access to the roofs of units 3 & 4; however, the IAEA is still seeking access to all the turbine halls and roofs "one after another".

#### **OCTOBER 25, 2023**

Blasts near the Khmelnytskyi nuclear site <u>damaged</u> windows at the facility overnight. The IAEA stated that, although this did not affect operation of the plant, it did knock out power temporarily for some off-site radiation monitoring stations.

#### **NOVEMBER 27, 2023**

On the same day that the Zaporizhzhia nuclear power plant lost its main off-site power line, IAEA staff <u>reported</u> that they heard what sounded like rockets fired from a Multiple Launch Rocket System (MLRS) nearby.

# FEBRUARY 22, 2024

IAEA Director General Rafael Mariano Grossi stated that the Zaporizhzhia Nuclear Power Plant <u>lost</u> connection to its last back-up external power line. The disconnection leaves the plant solely reliant on its 750 kV line, with no immediate back-up options available.

# MARCH 28, 2024

IAEA Director General Rafael Mariano Grossi <u>stated</u> that IAEA staff at the Zaporizhzhia Nuclear Power Plant heard explosions every day over the previous week, several times sounding near the site.

### **APRIL 13, 2024**

Russian President Vladimir Putin <u>told</u> the IAEA that Russia plans to restart the Zaporizhzhia Nuclear Power Plant, which Russian troops have occupied for two years. An unnamed European diplomat said Russia may aim to do so in time for the 40th anniversary of the plant's original connection to the Soviet Union's electrical grid.

#### **NOVEMBER 9, 2023**

U.S. cybersecurity firm Mandiant <u>reported</u> that Russian cyber spies were behind a hack in late 2022 that disrupted part of Ukraine's power grid. The group behind the attack, known by the moniker "Sandworm" has been previously identified as a cyberwarfare unit of Russia's GRU military intelligence agency. The attack, carried out simultaneously with Russian missile strikes, caused a power cut by tripping circuit breakers at an electrical substation.

### **JANUARY 4, 2024**

The IAEA <u>reported</u> that Russia was obstructing access to specific areas of the Zaporizhzhia Nuclear Power Plant. Russia's denial of IAEA inspectors' access to reactors 1, 2, and 6, coupled with the lack of provision of 2024 maintenance plans for the facility, raised concerns about the safety and security of the plant.

### MARCH 4, 2024

Energoatom Chairman Petro Kotin <u>claimed</u> that there were no longer any Energoatom personnel at the Zaporizhzhia Nuclear Power Plant. Despite having 360 employees at the plant at the beginning of 2024, Ukrainian personnel have been denied access to the facility by Russian occupying forces.

### **APRIL 9, 2024**

The IAEA <u>confirmed</u> that the main reactor containment structures at the Zaporizhzhia Nuclear Power Plant had been attacked by three drone strikes. In response, the IAEA held an emergency meeting where they once again called for the removal of Russian military personnel from the site.