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Nuclear Safety, Security and Safeguards in Ukraine

Report by the Director General

Summary

- The Board of Governors, in its resolutions GOV/2022/17, GOV/2022/58, GOV/2022/71, GOV/2024/18 and GOV/2024/73, respectively, requested the Director General to continue to closely monitor the situation regarding nuclear safety, security and safeguards in Ukraine and regularly report formally to the Board on these matters. This report provides a summary of the situation in Ukraine regarding nuclear safety, security and safeguards. It covers the period from 31 May to 29 August 2025 and is based on information made available to the Agency, and verified by the Agency, during this period. This report covers the progress made by the Agency in responding to Ukraine's requests to provide technical support and assistance in re-establishing, as appropriate, a sound nuclear safety and security regime at its nuclear facilities and in activities involving radioactive sources.
- This report also summarizes relevant aspects of the implementation of safeguards in Ukraine under the Agreement Between Ukraine and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons and the Protocol Additional thereto under the current circumstances.

Recommended Action

- It is recommended that the Board of Governors take note of this report.

Nuclear Safety, Security and Safeguards in Ukraine

Report by the Director General

A. Introduction

1. At the Board of Governors meeting in June 2025, the Director General provided the Board of Governors with a detailed report entitled *Nuclear Safety, Security and Safeguards in Ukraine* (document GOV/2025/26), covering the period from 28 February to 30 May 2025.

2. On 12 October 2022, the United Nations (UN) General Assembly adopted resolution A/RES/ES-11/4, declaring that, inter alia, the "attempted illegal annexation" of four regions of Ukraine on 4 October 2022 had no validity under international law.[1] The Agency complies with this resolution.

3. On 17 November 2022, the Board of Governors adopted resolution GOV/2022/71[2], on the safety, security and safeguards implications of the situation in Ukraine, in which it "[e]xpresse[d] grave concern that the Russian Federation ha[d] not heeded the calls of the Board to immediately cease all actions against and at nuclear facilities in Ukraine" and "request[ed] that the Russian Federation do so immediately". In addition, it "[d]eplore[d] and d[id] not recognize, consistent with resolution A/RES/ES-11/4 adopted by the UN General Assembly on 12 October [2022], the Russian Federation's attempts to take ownership of Ukraine's Zaporizhzhya Nuclear Power Plant [(ZNPP)] and its attempted illegal annexation of the Ukrainian territory on which the plant is located".[3]

4. On 28 September 2023, the General Conference, at its 67th regular session, adopted resolution GC(67)/RES/16[4] on nuclear safety, security and safeguards in Ukraine, in which it "fully support[ed] the continued and reinforced physical presence of the IAEA Support and Assistance Mission to Zaporizhzhya (ISAMZ), given the ongoing risks to nuclear safety, security, and safeguards implementation at the ZNPP" and "[c]all[ed] for the urgent withdrawal of all unauthorized military and other unauthorized personnel from Ukraine's ZNPP and for the plant to be immediately returned to the full control of the competent Ukrainian authorities consistent with the existing licence issued by the State Nuclear Regulatory Inspectorate of Ukraine (SNRIU) to ensure its safe and secure operation and in order for the Agency to conduct safe, efficient, and effective safeguards implementation, in accordance with Ukraine's comprehensive safeguards agreement and additional protocol". In addition,

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[1] United Nations General Assembly resolution A/RES/ES-11/4, adopted on 12 October 2022: https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/630/66/PDF/N2263066.pdf?OpenElement, para. 3.

[2] IAEA Board of Governors resolution GOV/2022/71, adopted on 17 November 2022, para. 1.

[3] IAEA Board of Governors resolution GOV/2022/71, adopted on 17 November 2022, para. 2.

[4] IAEA General Conference resolution GC(67)/RES/16, adopted on 28 September 2023, paras 1 and 2.

it "[f]ully support[ed] the Agency's continued provision, upon request, of technical support and assistance to Ukraine to help ensure the safe and secure operation of nuclear facilities and activities involving radioactive sources, including the continued physical presence of IAEA technical experts at the Chornobyl, Rivne, Khmelnytskyy, and South Ukraine Nuclear Power Plants" and "[e]ncourage[d] Member States to offer political, financial, and in-kind support to the IAEA comprehensive programme of technical support and assistance to Ukraine, including through the provision of necessary nuclear safety and security equipment as requested by Ukraine".[5]

5. On 7 March 2024, the Board of Governors adopted resolution GOV/2024/18[6] on nuclear safety, security and safeguards in Ukraine, in which it "[r]eiterate[d] its grave concern that the Russian Federation ha[d] not heeded the previous calls of the Board of Governors and General Conference contained in their respective resolutions to withdraw its military and other personnel from the ZNPP" and, inter alia, "call[ed] for the urgent withdrawal of all unauthorized military and other unauthorized personnel from Ukraine's ZNPP".

6. On 11 July 2024, the UN General Assembly adopted resolution A/RES/78/316[7] on the safety and security of nuclear facilities of Ukraine, including the ZNPP, in which it "[w]elcome[d] and encourage[d] the continued efforts of the Director General of the [Agency] to address the risks to nuclear safety and security, as well as to safeguards implementation at the [ZNPP]" and "[c]alle[d] upon all parties to the armed conflict to implement fully the 'seven indispensable pillars for ensuring nuclear safety and security during an armed conflict' and the five concrete principles of the Director General of the [Agency] to help to ensure nuclear safety and security at the [ZNPP]". Furthermore, it "[c]alled upon [UN] Member States to continue to support the efforts of the Director General of the [Agency] to uphold nuclear safety, security and safeguards implementation at all nuclear facilities in Ukraine".

7. On 20 September 2024, the General Conference, at its 68th regular session, adopted resolution GC(68)/RES/15[8] on nuclear safety, security and safeguards in Ukraine, in which it "[w]elcom[ed] with appreciation the continued efforts of the Director General and IAEA Secretariat to address nuclear safety and security risks in Ukraine" and "[c]all[ed] upon the Russian Federation, until it return[ed] Ukraine's ZNPP to the full control of the competent Ukrainian authorities, to provide ISAMZ with unrestricted and timely access to and from all relevant locations at and around the ZNPP and open information sharing in order to allow the [Agency] to fully report on the nuclear safety and security situation at the site and to undertake vital safeguards activities". In addition, it "[f]ully support[ed] the Agency's continued provision, upon request, of technical support and assistance to Ukraine to help ensure the safe and secure operation of nuclear facilities and activities involving radioactive sources, including the continued physical presence of IAEA technical experts at the Chornobyl, Rivne, Khmelnytskyy, and South Ukraine Nuclear Power Plants" and "[e]ncourage[d] Member States to continue to offer political, financial, and in-kind support to the IAEA comprehensive programme of technical support and assistance to Ukraine, including through the provision of necessary nuclear safety and security equipment as requested by Ukraine".[9]

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[5] IAEA General Conference resolution GC(67)/RES/16, adopted on 28 September 2023, paras 3 and 4.

[6] IAEA Board of Governors resolution GOV/2024/18, adopted on 7 March 2024, paras 2 and 3.

[7] United Nations General Assembly resolution A/RES/78/316, adopted on 11 July 2024: A/RES/78/316 (undocs.org), paras 6, 9 and 11.

[8] IAEA General Conference resolution GC(68)/RES/15, adopted on 20 September 2024, paras 3 and 4.

[9] IAEA General Conference resolution GC(68)/RES/15, adopted on 20 September 2024, paras 5 and 6.

8. On 24 February 2025, the UN General Assembly adopted resolution A/RES/ES-11/7[10] on advancing a comprehensive, just and lasting peace in Ukraine, in which it "[r]eiterate[d] its call for the immediate cessation of attacks against critical energy infrastructure, which increase the risk of a nuclear accident or incident" and "[u]rge[d] all Member States to cooperate in the spirit of solidarity to address the global impacts of the war on […] nuclear security and safety […]".

9. On 3 June 2025, the Director General made his 12th visit to Ukraine since the start of the armed conflict. He met Ukrainian President Volodymyr Zelenskyy and other senior officials to discuss the nuclear safety and security situation, and explore how the Agency could support Ukraine in rebuilding damaged and degraded nuclear infrastructure, and in restoring and expanding its nuclear power capacity.

"While the IAEA remains committed to doing everything we can to help keep Ukraine's nuclear facilities safe and secure until this devastating war ends, it is also crucial to prepare for the reconstruction phase, where the IAEA can also play an important role."

Director General Rafael Mariano Grossi,
3 June 2025

Director General Rafael Mariano Grossi meeting the Ukrainian President, Volodymyr Zelenskyy, in Kyiv on 3 June 2025. (Photo: www.president.gov.ua)

10. On 6 June 2025, the Director General travelled to Kaliningrad, Russian Federation where he met with Rosatom Director General Alexey Likhachev and other senior officials to discuss the nuclear safety and security situation at the ZNPP as well as matters pertaining to the safe rotation of the ISAMZ teams.

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[10] United Nations General Assembly resolution A/RES/ES-11/7, adopted on 24 February 2025: A/RES/ES-11/7 (undocs.org), paras 8 and 9.

Director General Rafael Mariano Grossi with Rosatom Director General, Alexey Likhachev, during the visit to Kaliningrad on 6 June 2025. (Photo: Rosatom)

11. From 10 to 11 July 2025, the Director General attended the Ukraine Recovery Conference in Rome, Italy and signed a new Memorandum of Understanding with Ukraine's Ministry of Energy, in the presence of President Volodymyr Zelenskyy, establishing a framework for cooperation to support the country's reconstruction. Key areas of focus included the completion of Units 3 and 4 at the Khmelnytskyy NPP (KhNPP); repairs to the New Safe Confinement at the Chornobyl site; and activities related to uranium resource evaluation, exploration, mining and production. The Director General also participated in a panel on energy reconstruction, highlighting the Agency's vital work to support Ukraine, and held meetings with several senior officials to discuss the nuclear safety and security situation in Ukraine and the Agency's ongoing efforts.

Director General Rafael Mariano Grossi with President Volodymyr Zelenskyy and Ukraine's Minister of Energy, German Galushchenko, during the signing ceremony of the Memorandum of Understanding in Rome on 10 July 2025. (Photo: www.president.gov.ua)

Director General Rafael Mariano Grossi speaking on the Agency's support to Ukraine during the energy reconstruction panel at the Ukraine Recovery Conference in Rome on 10 July 2025.

12. During the reporting period,[11] from 31 May to 29 August 2025, the Agency maintained the continued presence of its staff at the five nuclear sites in Ukraine without any interruption and remained committed to providing any support it could to help ensure the safe and secure operation of nuclear facilities and activities involving radioactive sources in Ukraine. This includes undertaking impartial assessments of the situation pertaining to nuclear safety and security; providing relevant information updates to the public and the international community; and delivering on the comprehensive programme of technical support and assistance to Ukraine by providing nuclear safety- and security-related equipment and technical expertise and advice. It also includes assistance for ensuring medical support and care for Ukrainian NPP personnel, for ensuring radiation safety and nuclear security of radioactive sources, and for mitigating the consequences associated with the destruction of the Kakhovka dam.

13. Agency staff present at the five nuclear sites in Ukraine continued to monitor and assess the situation against the seven indispensable pillars for ensuring nuclear safety and security during an armed conflict ('Seven Pillars') first outlined by the Director General at the meeting of the Board of Governors held on 2 March 2022 and described in document GOV/2022/52[12]. In addition, ISAMZ continued to monitor and report on observance of the five concrete principles for protecting the ZNPP ('Five Principles') established by the Director General at the meeting of the United Nations Security Council on 30 May 2023 and described in document GOV/2023/30[13].

14. The armed conflict continued to threaten nuclear safety and security in Ukraine. Three and a half years into the conflict, drone strikes have been observed to have intensified significantly, further endangering the nuclear safety and security of all of Ukraine's NPPs.

15. The Agency still assesses the overall situation with respect to nuclear safety and security at the ZNPP to be precarious, with six of the Seven Pillars compromised either fully or partially during the reporting period.

16. Throughout the reporting period, the ZNPP relied on a single off-site power line as military activities reportedly hindered the repair and reconnection of the backup line. The reduced height of the water level in the ZNPP cooling pond remains a concern. On 4 July 2025, the plant experienced its ninth total loss of off-site power since the start of the armed conflict.

17. ISAMZ continued to report frequent sounds of explosions, at varying distances from the site, as well as gunfire both within and outside the site perimeter. ISAMZ was also informed of drone-related military activity close to the site and in the surrounding area — including in the city of Enerhodar, where most staff live. ISAMZ further reported the ongoing presence of Russian armed forces and military equipment at the site. These activities continue to put the Five Principles and the overall nuclear safety and security of the plant at great risk.

18. The Agency's ability to make its assessment and report impartially and objectively on the nuclear safety and security situation at the ZNPP, and to fully assess whether all Five Principles are being observed at all times, continues to be limited by the restrictions on access and information imposed on ISAMZ at the site.

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[11] Following the reporting period referred to in GOV/2025/26.

[12] Report by the Director General to the Board of Governors, document GOV/2022/52, issued on 9 September 2022, para. 8.

[13] Report by the Director General to the Board of Governors, document GOV/2023/30, issued on 31 May 2023, para. 23.

19. This report has been produced in response to resolution GOV/2022/17[14], in which the Board of Governors requested the Director General and the Secretariat to "continue to closely monitor the situation [in Ukraine], with a special focus on the safety and security of Ukraine's nuclear facilities and report to the Board on these elements, as required"; to resolution GOV/2022/58[15], in which the Board of Governors requested the Director General to "continue to closely monitor the situation and report formally to the Board on these matters as long as required"; to resolution GOV/2022/71[16], in which the Board of Governors requested the Director General to "continue to closely monitor the situation [in Ukraine] and regularly report formally to the Board on these matters as long as required"; to resolution GOV/2024/18[17], in which the Board of Governors requested the Director General to "continue to report comprehensively on the observance of the five concrete principles to help ensure nuclear safety and security at ZNPP as well as the Director General's 'seven indispensable pillars for ensuring nuclear safety and security'" and that he "continue to closely monitor the situation and continue to report formally to the Board on these matters for as long as required."; and to resolution GOV/2024/73[18], in which the Board of Governors requested the Director General to "continue providing regular updates to the Board of Governors on the nuclear safety, security and safeguards situation in Ukraine, including the status of critical energy infrastructure essential for nuclear safety and security" and to "propose additional measures immediately if risks arise to prevent a nuclear accident."

20. This report provides a summary of the situation in Ukraine regarding nuclear safety, security and safeguards from 31 May to 29 August 2025. It also covers progress made by the Agency in providing technical support and assistance in nuclear safety and security to Ukraine. Finally, this report summarizes relevant aspects of the implementation under the current circumstances of safeguards in Ukraine under the Agreement Between Ukraine and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons and the Protocol Additional thereto.

B. Nuclear Safety and Security in Ukraine

B.1. Agency Missions to Ukraine

B.1.1. IAEA Support and Assistance Missions to the Zaporizhzhya, Rivne, South Ukraine and Khmelnytskyy NPPs, and to the Chornobyl NPP Site

21. During the reporting period, the Agency maintained the continued presence of its staff, comprising up to 14 staff members in total across the 5 nuclear sites in Ukraine, through the uninterrupted deployment of IAEA Support and Assistance Missions to the ZNPP (ISAMZ), the Khmelnytskyy NPP (KhNPP) (ISAMIK), the Rivne NPP (RNPP) (ISAMIR), the South Ukraine NPP (SUNPP) (ISAMISU), and the Chornobyl NPP (ChNPP) site (ISAMICH). The purpose of the continued presence of Agency staff at all nuclear sites in Ukraine is to help decrease the risk of a nuclear accident.

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[14] IAEA Board of Governors resolution GOV/2022/17, adopted on 3 March 2022, para. 4.

[15] IAEA Board of Governors resolution GOV/2022/58, adopted on 15 September 2022, para. 7.

[16] IAEA Board of Governors resolution GOV/2022/71, adopted on 17 November 2022, para. 8.

[17] IAEA Board of Governors resolution GOV/2024/18, adopted on 7 March 2024, para. 6.

[18] IAEA Board of Governors resolution GOV/2024/73, adopted 12 December 2024, para. 4.

22. The Agency continued implementing rigorous preparations and logistics to ensure the safe and secure deployment of missions to Ukraine. During the reporting period, rotations at the ChNPP site, the KhNPP, the RNPP and the SUNPP were completed as planned, while the rotations at the ZNPP were delayed due to challenges arising from the ongoing military activity, putting the safety of Agency staff at risk.

23. Agency staff at all five nuclear sites continued to meet with key management and operational personnel to exchange information, discuss the nuclear safety and security situation, and observe key areas important for nuclear safety and security at the sites.

The ISAMIK team with KhNPP staff during a site walkdown on 14 July 2025. (Photo: KhNPP)

24. As of 29 August 2025, a total of 217 missions comprising 176 Agency staff members had been deployed as part of the continued presence at all 5 nuclear sites in Ukraine, totalling 474 person-months in Ukraine. Half of these Agency staff members participated in 2 or more missions, while some participated in over 12 missions. Agency staff at all nuclear sites in Ukraine continued to experience frequent air raid alarms, some of which required them to take shelter.

25. The main findings and observations from the IAEA Support and Assistance Missions are reflected in Section B.2.

B.1.2. IAEA Support and Assistance Mission on the Safety and Security of Radioactive Sources (ISAMRAD)

26. From 26 May to 2 June 2025, the ISAMRAD Phase Two mission was conducted in Ukraine to address the safety and security of radioactive sources, with a focus on Category 1 to 3 sources considered vulnerable due to the armed conflict. The team visited the National Science Centre (NSC) – Institute of Metrology in Kharkiv and the Chornobyl Exclusion Zone (ChEZ) Vektor Complex. At Ukraine's

request, a site visit was also conducted to the NSC – Kharkov Institute of Physics and Technology (KIPT) to assess the need for further site specific assistance.

27. The ISAMRAD team observed that progress had been made in enhancing the safety and security of radioactive material at both the NSC KIPT and the ChEZ Vektor Complex. The Agency staff discussed the challenges of maintaining effective and continuous regulatory control over radioactive sources during an armed conflict. While Ukraine has a national plan and the capability to recover high-risk radioactive sources, such activities can only be carried out when conditions on the ground allow. However, the ongoing conflict, along with limitations in technical expertise and financial resources, continue to hinder certain planned efforts — such as the transfer of disused radioactive sources outside Ukraine for reuse and recycling.

28. Discussions are ongoing to advance these matters and to identify a suitable course of action.

ISAMRAD team with its Ukrainian counterparts during a visit to the ChEZ Vector Complex on 31 May 2025.

B.1.3. Director General's Visit to Kyiv

29. On 3 June 2025, the Director General and other senior Agency officials travelled to Kyiv to discuss the fragile nuclear safety and security situation in Ukraine, the Agency's ongoing work, and the ways and means in which the Agency can support Ukraine in rebuilding its damaged and degraded nuclear energy infrastructure.

30. During the visit, the Director General met President Volodymyr Zelenskyy; Minister of Energy, German Galushchenko; and Minister of Foreign Affairs, Andrii Sybiha. The discussion focused on the importance of the Agency's continued support to Ukraine in the areas of nuclear safety and security, the sustained presence of Agency staff — in particular at the ZNPP — and potential future assistance towards recovery, which would include support for the expansion of Ukraine's nuclear power infrastructure and the restoration of the damaged New Safe Confinement at the Chornobyl site.

"In today's meetings, President Zelenskyy and his ministers voiced strong support and appreciation for the Agency's continued presence at Ukraine's nuclear sites and our essential role in helping to strengthen its energy infrastructure."

Director General Rafael Mariano Grossi, 3 June 2025

Director General Rafael Mariano Grossi with Ukraine's Minister of Foreign Affairs, Andrii Sybiha, in Kyiv on 3 June 2025.

B.1.4. Nuclear Safety and Security Missions to Electrical Substations

31. In accordance with resolution GOV/2024/73[19] of the Board of Governors, the Agency continued to assess the risks and extent of damage to substations identified as essential for the safe operation of

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[19] IAEA Board of Governors resolution GOV/2024/73, adopted on 12 December 2024, paras 1, 2 and 3.

Ukraine's NPPs. The need for NPPs to have a reliable and stable power supply so that safety can be maintained has been addressed in several of the Agency's safety standards[20]. In addition, the Agency's nuclear security guidance[21] addresses the need for nuclear security systems and measures to be in place at strategic locations, including locations of critical infrastructure.

32. On 8 August 2025, the Agency concluded a mission to Ukraine during which a further visit was made to electrical substations identified as critical for the nuclear safety of the Ukrainian NPPs. The mission had begun on 29 July 2025 and included visits to three substations covered by the Agency during the missions conducted in September, October and December 2024, reported in document GOV/2025/11, and in February 2025, reported in document GOV/2025/26, as well as four additional substations.

33. The purpose of the mission was to:

- Document the damage to the substations caused by military activity, including any further damage that may have been sustained since previous missions;
- Assess the impact of the damage on the safe operation of the nuclear facilities served by the substations;
- Observe the substations' security measures against related threats; and
- Identify any additional actions that could be taken or technical assistance that could be provided by the Agency to further strengthen the safe operation of NPPs in Ukraine.

34. During the mission, the Agency documented the damage and gathered key evidence highlighting vulnerabilities in Ukraine's electricity grid resulting from attacks on the country's energy infrastructure. The Agency staff observed that two additional air attacks had occurred in 2025 at the substations they had visited. They also noted that repairs were ongoing on some critical equipment needed to restore functions of substations essential for nuclear safety at Ukraine's NPPs. While most of the substations visited were operational, some remained partially functional owing to continued repair work on the equipment.

35. During the mission, Agency staff met with representatives from the Ministry of Energy, Ukraine's grid operator, the NPPs and the SNRIU. Drawing on the findings of the missions, the Agency has engaged in further work to identify what targeted technical assistance it could provide to mitigate any adverse impact and to help prevent a nuclear accident. As part of this assistance, the Agency is planning to conduct a national workshop in Vienna from 1 to 5 September 2025 on the methodology for assessing risks to NPP operations under degraded grid conditions.

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[20] Report by the Director General to the Board of Governors, document GOV/2025/11, issued on 27 February 2025, paras 27 to 29.

[21] Report by the Director General to the Board of Governors, document GOV/2025/11, issued on 27 February 2025, para. 30.

B.2. Overview of the Situation at Nuclear Facilities in Ukraine

36. The Agency continued to monitor and assess the nuclear safety and security situation at Ukraine's nuclear facilities and activities involving radioactive sources against the Seven Pillars. In addition, the Agency continued to monitor and assess observance of the Five Principles aimed at ensuring the integrity and the nuclear safety and security of the ZNPP. The Agency continued to report regularly on its observations and findings.

The Seven Pillars outlined for the first time by the Director General at the meeting of the Board of Governors held on 2 March 2022.

The Five Principles established by the Director General during his address to the United Nations Security Council on 30 May 2023.

37. An overview of the current nuclear safety and security situation at Ukraine's nuclear facilities and activities involving radioactive sources against the Seven Pillars, as well as an overview of the observations made at the ZNPP against the Five Principles, are presented below. A chronology of events in Ukraine during the reporting period is provided in the Annex.

B.2.1. Zaporizhzhya NPP

38. The Agency's assessment is that the overall situation at the ZNPP with respect to nuclear safety and security continues to be precarious, with six of the Seven Pillars compromised either fully or partially during the reporting period.

39. Throughout the reporting period all units remained in cold shutdown and the ZNPP informed ISAMZ that there were no plans to place any reactor unit in hot shutdown. The Agency's understanding is that no reactor is to be restarted as long as the nuclear safety and security situation at the ZNPP remains in jeopardy due to the conflict.

> ***"The extremely fragile external power situation, as well as challenges related to the availability of cooling water after the Kakhovka dam was destroyed two years ago, underline the fact that nuclear safety remains highly precarious at the Zaporizhzhya Nuclear Power Plant."***
>
> **Director General Rafael Mariano Grossi, 26 June 2025**

40. The ZNPP operated one of its nine mobile diesel boilers for most of the reporting period to meet the plant's internal heating needs. The diesel steam generators were also operated periodically throughout the reporting period to supply the steam required for water treatment, including the processing of liquid radioactive waste.

41. On 9 June 2025, Rostekhnadzor informed ISAMZ that it was conducting a two week pre-licensing inspection as part of the ZNPP's application for operating licences for Units 1 and 2.[22] ISAMZ was subsequently informed that the inspection was structured around 22 questions addressing various aspects of nuclear safety. It was also informed that licences are typically issued for ten years, with the possibility of a ten-year extension. In the case of the ZNPP, it is expected that the licence would include

[22] See para. 2 above.

conditions addressing key nuclear safety issues — such as off-site power and cooling water— that would need to be resolved before any transition of the units from cold shutdown to another operating state. ISAMZ will closely monitor developments in this regard.

Physical integrity

42. During the reporting period, ISAMZ did not observe any impact on the physical integrity of the six reactor units or the on-site storage facilities housing spent fuel, fresh fuel and radioactive waste. However, ISAMZ continued to report military activity in the vicinity of the plant, including its training centre, such as frequent explosions, gunfire and reported drone attacks that could potentially affect the nuclear safety and security of the site or the security of the staff.

Nuclear safety and security systems and equipment

43. During the reporting period, ISAMZ was able to routinely visit the reactor halls and other key locations within the reactor containment area, the safety systems rooms, the main control rooms (MCRs), the supplementary control rooms, the electrical rooms, the instrumentation and control rooms and parts of the turbine halls of all six units. ISAMZ also visited the dry spent fuel storage facility and the storage facilities for fresh fuel at the site. Moreover, ISAMZ visited the cooling pond, the essential service water (ESW) sprinkler ponds, including the drilled wells, and the emergency diesel generators (EDGs). ISAMZ did not report any new major issues affecting the overall nuclear safety and security of the plant based on the observations made during these visits.

44. ISAMZ performed walkdowns of all turbine halls. They continued to be prevented from visiting the western part of the turbine halls on all levels of all units throughout the reporting period, without justification being provided on a sound nuclear safety or security basis. Therefore, ISAMZ continued to be unable to independently confirm whether there were any issues or materials present in these parts of the turbine halls that could potentially affect the nuclear safety or security of the plant. ISAMZ continued to report a military presence in these areas.

45. ISAMZ continued to gather information and independently monitor and observe maintenance activities based on the plant's maintenance plans for 2025. During the reporting period, ISAMZ monitored the status of maintenance work affecting safety train I of Units 2 and 6, safety train II of Units 2 and 4 as well as safety train III of Units 2, 4, 5 and 6. It also noted a delay in the planned annual maintenance on all EDGs, reportedly due to a long procurement process for certain spare parts. While maintenance activities are ongoing, ISAMZ noted that they have not yet reached a level of comprehensiveness typically expected under normal operating conditions.

46. ISAMZ routinely observed scheduled tests of the EDGs and did not note any issues, with all EDGs starting and supplying power within the prescribed time frames.

47. During the reporting period, ISAMZ did not observe any changes in relation to the mobile diesel generators in comparison to what was reported in documents GOV/2025/11[23] and GOV/2025/26[24].

48. ISAMZ continued to monitor the situation regarding the availability of cooling water by gathering information and visiting some of the ZNPP's cooling water facilities. Throughout the reporting period, ISAMZ also reported that:

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[23] Report by the Director General to the Board of Governors, document GOV/2025/11, issued on 27 February 2025, para. 57.

[24] Report by the Director General to the Board of Governors, document GOV/2025/26, issued on 2 June 2025, para. 42.

- The 11 groundwater wells, built in 2023, each continued to supply approximately 250 cubic metres of cooling water per hour to the 12 ESW sprinkler ponds. On 13 June 2025, ISAMZ was informed that a pump for one of the groundwater wells was not operational. The pump was subsequently replaced on 20 June 2025 and all 11 remained operable for the rest of the reporting period;

- Two other older wells, built prior to the start of the armed conflict, were also providing water to the ESW sprinkler ponds for Units 5 and 6 at a rate of about 20–25 cubic metres of cooling water per hour. In total 13 groundwater wells supplied up to 300 cubic metres of cooling water per hour to the 12 ESW sprinkler ponds;

- The height of the water in the ESW sprinkler ponds, which currently serve as the ultimate heat sink for the plant, remained sufficient to provide cooling to all six units and safety systems in the cold shutdown state;

- Excess water — beyond what was needed to maintain the water level in the ESW sprinkler ponds — was pumped into the ZNPP inlet channel at a rate of up to 270 cubic metres per hour;

- During the reporting period, the height of the cooling pond gradually decreased as a result of increased evaporation, with ISAMZ observing the presence of sandbanks appearing in parts of the pond. At the end of the reporting period, the height of the cooling pond was 13.43 metres, a decrease of 57 centimetres from the 14.00 metres reported in document GOV/2025/26[25];

- If the water level in the ZNPP inlet channel drops below 12 metres, the pumps supplying cooling water to the main transformers for each of the reactor units and the non-essential cooling service water would cease to operate. Without this cooling water, the unit transformers would be unable to provide power to the reactor units. In such a scenario, the site would need to find alternative means to operate the demineralized water processing system;

- On 17 August 2025, ISAMZ was informed that the ZNPP had completed the construction of a dam within the ZNPP inlet channel to isolate that body of water from the cooling pond and help maintain the water level within the inlet channel. Furthermore, the ZNPP was using pumps to pump water from the ZNPP cooling pond into the inlet channel to maintain the water level in the inlet channel at approximately 14 metres;

- On 26 August 2025, ISAMZ was informed that the ZNPP had temporarily turned off some of the groundwater well pumps to limit the excess water coming from the ESW sprinkler ponds into the inlet channel, thereby maintaining the water level in the inlet channel. On 27 August 2025, the water level in the ZNPP inlet channel was reported to be 14.06 metres; and

- Water continued to be pumped from the Zaporizhzhya thermal power plant (ZTPP) inlet channel into the ZTPP discharge channel. On 1 August 2025, ISAMZ visited the isolation gate of the discharge channel and were informed that the submersible pump[26], located on the reservoir side of the ZTPP discharge channel isolation gate, was not operational as the water levels in the reservoir were too low. ISAMZ was also informed that on 10 July 2025 the water level in the ZTPP discharge channel had dropped below the minimum required to operate the ZNPP service water station pumps. As a result, the water supply to the non-essential service water system, fire protection system, Training Centre and Combined Auxiliary Building had to be sourced from

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[25] Report by the Director General to the Board of Governors, document GOV/2025/26, issued on 2 June 2025, para. 38.

[26] Report by the Director General to the Board of Governors, document GOV/2024/24, issued on 2 September 2024, para. 41.

alternative locations, such as the inlet channel. During the reporting period, the height of the water in the ZTPP discharge channel fluctuated between 16.25 metres and 16.50 metres.

49. On 4 June 2025, ISAMZ held a discussion with the ZNPP regarding its plan[27] to build a pumping station that would reportedly provide cooling water to refill the ZNPP cooling pond and to operate one or possibly two reactor units. The ZNPP reported that the design of the station had been completed, but its exact location had not yet been determined, with the expectation that any construction would only be possible after the armed conflict ended, and that before any reactor operation can begin, the isolation dam in the ZNPP inlet channel would need to be removed and the water level in the inlet channel increased to enable full operability of the unit pumping stations.

50. On 1 July 2025, ISAMZ was informed that the preliminary assessment had been completed for the cooling tower damaged on 11 August 2024. The final report, however, was not expected until September 2025.

Operating staff

51. ISAMZ reported that staffing levels at the ZNPP remained relatively stable throughout the year, and that the ZNPP noted that it was challenging to recruit new staff due to the plant's proximity to the front line of the armed conflict. Continued stress among staff was observed due to the ongoing military activity.

52. ISAMZ visited all six MCRs on several occasions during the reporting period. It observed that each unit had at least three authorized personnel per MCR, in line with the number reported in document GOV/2024/30.

53. ISAMZ reported that it was often able to speak to staff regarding the staffing situation and the plant's technical status. There were, however, occasions when security personnel prevented open discussions. For the Agency to fully assess the staffing situation at the ZNPP — including staff qualifications and training — and to determine its implications for nuclear safety and security, timely and accurate information, along with open dialogue with all relevant staff, remains essential.

54. ISAMZ reported that the ZNPP aimed to complete all planned organizational changes by the end of 2025, as outlined in document GOV/2025/26, and that a new Ventilation Systems Department had been established. Formerly part of the Energy/Maintenance Department, this new independent unit is now responsible for the operation, maintenance and technical assessment of ventilation systems across all ZNPP buildings.

Off-site power supply

55. Throughout the reporting period, the off-site power supply to the ZNPP remained extremely vulnerable. The plant relied for off-site power on only one of ten off-site power lines — the 750 kV Dniprovska line. The 330 kV Ferosplavna 1 backup power line[28] remained disconnected throughout the reporting period.

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[27] See para. 2 above.

[28] Report by the Director General to the Board of Governors, document GOV/2025/26, issued on 2 June 2025, para. 49.

> "***What was once virtually unimaginable — that a major nuclear power plant would repeatedly lose all of its external power connections — has unfortunately become a common occurrence at the Zaporizhzhya Nuclear Power Plant. Almost three and a half years into this devastating war, nuclear safety in Ukraine remains very much in danger.***"
>
> **Director General Rafael Mariano Grossi, 4 July 2025**

56. On 4 July 2025, the ZNPP experienced a total loss of off-site power for the ninth time since the start of the armed conflict when the only available power line — the 750 kV Dniprovska — was disconnected. All available EDGs automatically activated, supplying on-site power to the plant for almost four hours until the Dniprovska line was restored. The SNRIU informed the Agency that the disconnection occurred during air raid alarms, which required staff at the Dniprovska 750 kV substation to take shelter. On 1 August 2025, Agency staff visited the Dniprovska 750 kV substation, where they learnt that all of the substation's 750 kV power lines had been disconnected due to the actuation of the autotransformer's overvoltage protection system, triggered by falling debris from an intercepted drone on 4 July 2025.

57. ISAMZ continued to monitor the status of the off-site power lines and the 150 kV/330 kV and 750 kV open switchyards through discussions with the ZNPP and visits to the 750 kV open switchyard. It did not have access to the 150 kV/330 kV switchyard. Through these discussions and visits ISAMZ confirmed that:

- The Zaporizhzhska and Kakhovska 750 kV power lines remained unavailable, and the ZNPP had no updated information about their technical condition. The South Donbasska 750 kV power line also remained unavailable, despite some maintenance having been performed on the line.
- The equipment in the 750 kV open switchyard for the Dniprovska, Zaporizhzhska and South Donbasska lines was operational. However, the equipment for the Kakhovska line was unable to operate after the damage that had occurred.[29]
- The autotransformer in the 750 kV open switchyard remained operational and connected to the 330 kV open switchyard. It supplies power to backup transformer RTSN-5,6 owing to the unavailability of the 330 kV Ferosplavna 1 line.
- The equipment in the 330 kV open switchyard for the 330 kV Ferosplavna 1 line was operational. However, the switchyard equipment for the Ferosplavna 2, Zaporizhzhska, Kakhovska, Melitopoloska and Molochanska was damaged at the start of the conflict, and the ZNPP had no information about their current status. The ZNPP also stated that it did not have any information on the status of the two auto-transformers in the 150 kV/330 kV open switchyard.
- The 150 kV switchyard could receive off-site power from lines connected to the Russian[30] electrical grid and could supply power to the backup common buses via backup transformer RTSN-1,2. The ZNPP informed ISAMZ that this set-up was regularly tested.

58. ISAMZ continued to monitor the maintenance activities on electrical components located on-site and in the 750 kV and 330 kV open switchyards, which provide off-site power to all six units — such as on the main transformer of Unit 4 — and noted that the planned maintenance of the second 750 kV busbar had been postponed by the time the 330 kV Ferosplavna 1 line was reconnected. Maintenance on one pair of backup power transformers — RTSN-1,2 — was completed during the reporting period, and maintenance commenced on another pair — RTSN-3,4 — just before the end of the reporting period.

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[29] Report by the Director General to the Board of Governors, document GOV/2024/9, issued on 27 February 2024, para. 61.

[30] See para. 2 above.

Maintenance on the last pair of backup power transformers is reportedly planned to be performed before the end of 2025.

59. The ZNPP informed ISAMZ that if the water level in the inlet channel were to drop below 12 metres, making it impossible to cool the main transformers of all reactor units, power would be supplied via a pair of backup power transformers. However, if the normal power supply were to fail, this would further decrease the plant's off-site power resilience, effectively removing the first line of defence and increasing the risk of a future total loss of off-site power events. The ZNPP also reported that it was exploring an alternative method of providing cooling to the main transformers.

60. ISAMZ sought information about the ZNPP plans to connect the plant to the Russian electricity grid in the event of disconnection of the current off-site power lines. However, the ZNPP informed the team that the matter was either confidential, or it did not have any information and therefore no details were provided.

Logistical supply chain

61. During the reporting period, the supply chain to the ZNPP continued to be provided by the Russian Federation.[31] ISAMZ continued to access relevant locations at the ZNPP — where permitted — to assess the status and availability of spare parts, including visits to the mechanical and electrical warehouses, and to hold discussions with the ZNPP staff. However, ISAMZ has been denied permission to visit the central warehouse since 31 July 2024.

62. ISAMZ was informed that the site has sufficient fuel for approximately 20 days of EDG operation, that the supply of diesel fuel has not been disrupted and that the diesel fuel is replenished as needed.

63. On 3 July 2025, ISAMZ visited the on-site mechanical and electrical warehouses and observed a range of various supplies of spare parts, including some new arrivals. ISAMZ was informed that supplies are delivered to an external warehouse, where they undergo acceptance checks before being transferred to the on-site warehouse. The ZNPP conducted two inventory audits at the site, with a third around the time of the visit, the results of which would reportedly undergo evaluation. ISAMZ requested the results of the audits once they become available.

64. The inaccessibility of the central warehouse affects the ability of ISAMZ to conduct a more comprehensive assessment of the availability of spare parts and the status of the supply chain. ISAMZ will continue to monitor the situation so that it can independently confirm that all necessary and compatible spare parts are available or could be supplied to the ZNPP as needed.

On-site and off-site radiation monitoring systems and emergency preparedness and response

65. During the reporting period, there was no change to the status of on-site and off-site radiation monitoring stations reported in document GOV/2024/63. All on-site radiation monitoring stations were operational, and all but four of the off-site radiation monitoring stations continued to report monitoring data.

66. The online transmission of data from the ZNPP's radiation monitoring systems to the SNRIU continued to be interrupted and was not restored during the reporting period. Data from the on-site and off-site radiation monitoring stations continued to be provided to ISAMZ manually several times a week and were uploaded to and displayed on the Agency's International Radiation Monitoring Information

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[31] See para. 2 above.

System (IRMIS). ISAMZ conducted independent radiation monitoring within the ZNPP perimeter. However, the backpack radiation monitoring system used by ISAMZ was often unable to establish a connection with the global positioning systems within the ZNPP perimeter, so it was not possible for the results to be uploaded to IRMIS. Consequently, ISAMZ continued the practice of conducting gamma dose rate measurements at a series of fixed points on a regular basis. All radiation levels reported to and collected by ISAMZ were normal throughout the reporting period.

Radiation monitoring data from the monitoring stations in the 20 km radius around the ZNPP. Radiation levels are normal.

67. The ZNPP informed ISAMZ that the new on-site emergency plan continued to be pending approval by all relevant organizations of the Russian Federation[32], with the final approval pending with one of the organizations. The ZNPP continues to rely on the temporary on-site emergency response centre established in 2022 when the original centre became unavailable.

68. ISAMZ confirmed that the next large scale ZNPP emergency exercise is scheduled for November 2025.

Communications

69. Official communication between the ZNPP and the SNRIU has not been restored. The ZNPP remains in contact with the Ukrainian electricity grid operator on matters related to the off-site power supply, as demonstrated on 4 July 2025 during the total loss of off-site power.

70. ISAMZ reported that Internet connections were normally functional on-site and that it was able to connect to the local mobile telephone network off-site as needed. It was noted that it was no longer possible to make telephone calls between the Agency's Headquarters and Agency staff at the ZNPP via a commonly used end-to-end encrypted communication platform, despite the service continuing to function in other parts of Ukraine. ISAMZ continued to report ongoing issues at the ZNPP with communications utilizing satellite phones and equipment with global positioning systems (i.e. the backpack radiation monitoring system).

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[32] See para. 2 above.

Five concrete principles for protecting the ZNPP

71. During the reporting period, the Agency continued to monitor observance of the Five Principles at the ZNPP. ISAMZ conducted regular walkdowns of the ZNPP site and related areas. However, ISAMZ was not permitted to access several areas — including the western part of the turbine halls of all six units, the ZNPP cooling pond isolation gate, the ZTPP 330 kV open switchyard, and the off-site central warehouse — throughout the entire reporting period. The access restrictions imposed on ISAMZ by the ZNPP continue to limit the Agency's ability to fully assess whether all Five Principles are being observed at all times.

72. Although ISAMZ could not confirm any attacks from or against the plant targeting the reactors, spent fuel storage or other critical infrastructure, it continued to report that it regularly heard explosions and gunfire and that military activities involving drones were reported by the ZNPP within the perimeter and at various distances from the site perimeter, including in the city of Enerhodar, where most staff live, posing a risk to the first of the Five Principles.

> "***Regardless of the intended targets, shelling or drone attacks near nuclear power plants must not occur as any such military activity can have adverse physical or psychological consequences for plant staff and therefore also potentially for nuclear safety and security.***"
>
> **Director General Rafael Mariano Grossi, 26 July 2025**

73. ISAMZ was informed that drone attacks on 27 June 2025, approximately 600 metres from the nearest reactor unit, damaged several vehicles near the site's cooling pond and caused a fire that burnt the vegetation. On 30 June 2025, ISAMZ visited the site where personnel had reportedly been cleaning the nearby water reservoir at the time of the attacks — no casualties were reported. During its visit, ISAMZ observed one truck and the burnt vegetation from a distance but was unable to get close enough to inspect any drone debris or assess the damage to the vehicle.

The truck that was reportedly damaged and burnt vegetation at the scene of the alleged drone attacks on 27 June 2025. (Photos: ZNPP)

74. On 12 July 2025, ISAMZ reported hearing approximately 1000 rounds of small arms fire coming from within the site perimeter and near the training centre. During a site walkdown on 13 July 2025, ISAMZ observed small calibre casings on the ground around Units 5 and 6.

75. ISAMZ was informed that three drones had attacked the ZNPP training centre on 13 July 2025, resulting in some damage to the building. ISAMZ requested access to visit the scene, but it was not approved.

76. ISAMZ did not observe any heavy weapons during walkdowns of the areas to which it had access. However, for the Agency to fully confirm the absence of heavy weapons at the ZNPP, timely and appropriate access to all areas important for nuclear safety and security is needed.

77. ISAMZ continued to report the presence of armed troops — identified by the Russian Federation as members of the Russian National Guard and chemical, biological, radioactive and nuclear specialists — as well as military equipment, including armoured personnel carriers, military logistics vehicles and weapon-mounted armoured vehicles. ISAMZ also reported that armed troops prevented access to the western sections of the turbine halls.

78. During the reporting period, the ZNPP remained disconnected from the 330 kV Ferosplavna 1 backup line, which was reportedly damaged by military activity and could not be restored for the same reason[33]. As a result, the plant relied solely on the last remaining 750 kV Dniprovska power line. On 4 July 2025, this line was temporarily disconnected from the ZNPP, leading to a total loss of off-site power at the ZNPP for approximately four hours and undermining the third of the Five Principles.

79. The ZNPP stated that key infrastructure at the site was protected by Russian troops and that additional physical protection measures had been put in place[34], such as those reported in documents GOV/2022/66 and GOV/2023/10. However, it is not possible for the Agency to fully confirm that all structures, systems and components, including the buried ESW channels, essential for the safe and secure operation of the ZNPP are protected against attacks or acts of sabotage, due to limitations in access and information.

B.2.2. Khmelnytskyy, Rivne and South Ukraine NPPs

80. During the reporting period, the KhNPP, the RNPP and the SUNPP continued to be the only operating NPPs in Ukraine producing electricity for the Ukrainian network. All reactors (nine in total) at these sites remained in operation during the reporting period, except during scheduled outages for maintenance and refuelling as well as unplanned operational events.

81. Throughout the reporting period, frequent air raid alarms were reported by the Agency staff present at these NPPs, some of which required them to take shelter. Agency staff continued to report hearing or observing drones flying in the plants' proximity and being intercepted by anti-aircraft systems.

> ***"There are too many drones flying too close to Ukraine's nuclear power plants, potentially threatening nuclear safety. As we saw in February, they can cause major damage at these facilities. Once again, I call for maximum military restraint in the vicinity of nuclear facilities."***
>
> **Director General Rafael Mariano Grossi, 1 July 2025**

Physical integrity

82. No physical damage was caused to the KhNPP, the RNPP or to the SUNPP as a result of military activities during the reporting period. The Agency teams at all three NPPs continued to report on continued efforts to protect critical structures, systems and components and vital structures through additional mitigatory measures.

Nuclear safety and security systems and equipment

83. All nuclear safety and security systems at the KhNPP, the RNPP and the SUNPP continued to operate as designed and to be fully functional. The operating staff conducted regular operational testing

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[33] See para. 55 above.

[34] See para. 2 above.

and preventive maintenance of the safety systems, some of which was witnessed by the Agency staff present on the site.

84. On 10 June 2025, Rivne Unit 1 power was reduced to 50% following the spurious activation of the gas protection system on the house load transformer. The Unit returned to nominal power a few hours later. That same day, a similar incident occurred at Rivne Unit 4, where an electrical protection system triggered the Unit's disconnection from the grid. A few hours later, Unit 4 was reconnected and returned to nominal power.

85. On 26 June 2025, Rivne Unit 1 power was reduced to 50% to allow for inspection of one of its turbine blocks, following an issue with the support bearing of a high-pressure cylinder. The Unit returned to nominal power on 28 June 2025 but was reduced again on 1 July 2025, as the issue persisted. On 6 July 2025, after further inspection and repair, Unit 1 was restored to nominal power.

86. On 1 August 2025, at 4 p.m. local time, KhNPP Unit 1 was automatically shut down due to a failure of a feed water pump controller. The fault was rectified, and Unit 1 power level was restored on 3 August 2025, at approximately 12 p.m. local time.

87. On 27 August 2025, RNPP Unit 3 was shut down to repair a water leak in one of the steam generators. Maintenance was ongoing at the end of the reporting period.

ISAMIR conducting a walkdown of instrumentation and control cabinets at the RNPP in July 2025. (Photo: RNPP)

Operating staff

88. All three NPPs reported that they had a sufficient number of qualified operating staff to ensure safe and secure plant operation. ISAMIK, ISAMIR and ISAMISU did not report any significant change

in staffing levels during the reporting period. The operating staff at these NPPs continued to be exposed to increased stress due to the armed conflict, including as a result of frequent air raid alarms.

ISAMISU visiting the training centre at the SUNPP on 24 July 2025. (Photo: SUNPP)

Off-site power supply

89. The ISAMIR and ISAMISU teams reported that all off-site power lines remained available during the reporting period, except for the following:

- At KhNPP: one 400 kV off-site power line was disconnected for planned maintenance, commencing 11 August 2025.
- At RNPP: one 110 kV off-site power line was disconnected from 21 May to 7 June 2025 and another one for a few hours between 6 and 7 June 2025, both for planned maintenance. Since 28 March 2025, one 330 kV off-site power line has been under planned maintenance. Between 14 and 16 July 2025, another 330 kV off-site power line was disconnected for planned maintenance. Between 28 and 30 July 2025, one 110 kV off-site power line was disconnected for planned maintenance. Between 26 July and 3 August 2025, another 330 kV off-site power line was disconnected for planned maintenance. Between 5 and 7 August 2025, one 110 off-site power line was disconnected for planned maintenance. On 11 August 2025, another 110 off-site power line was disconnected for planned maintenance. Between 12 and 14 August 2025, one 330 kV off-site power line was disconnected for planned maintenance.
- At SUNPP: one 330 kV off-site power line was disconnected from 19 May 2025 to 10 June 2025 and another one between 7 and 13 June 2025, both for planned maintenance. On 4 July 2025, the 750 kV Dniprovska off-site power line was disconnected for more than four hours. This event occurred in parallel to the disconnection of the Dniprovska 750 kV line between the ZNPP and the Dniprovska substation. On 21 July 2025, the power supply to one 330 kV off-site power line was interrupted and recovered the same day — ISAMISU was informed that the interruption was

caused by an issue on the grid operator's side. Between 24 and 30 July 2025, the Dniprovska 750 kV line was disconnected for planned maintenance. Between 4 and 10 August 2025, one 330 kV off-site power line was disconnected for planned maintenance.

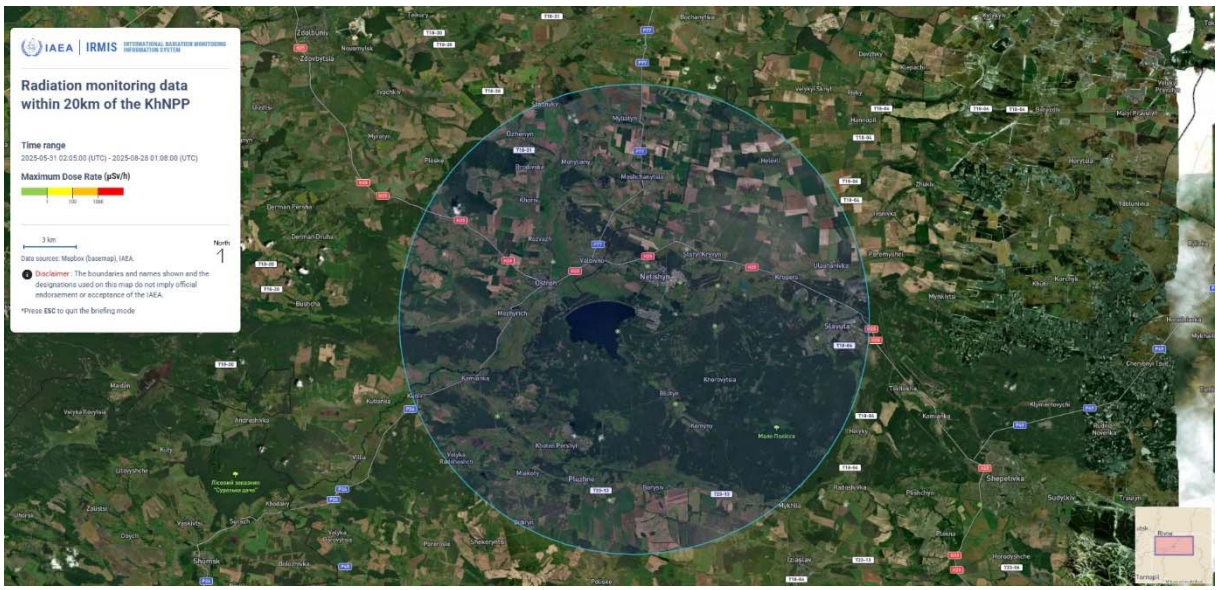
Logistical supply chain

90. During the reporting period, no new challenges to the logistical supply chains for the KhNPP, the RNPP and the SUNPP were identified. Alternative suppliers for some spare parts have been identified within Ukraine and have been progressing through the process to obtain regulatory approvals. Where approvals have been obtained, suppliers have started supplying parts to the operating plants.

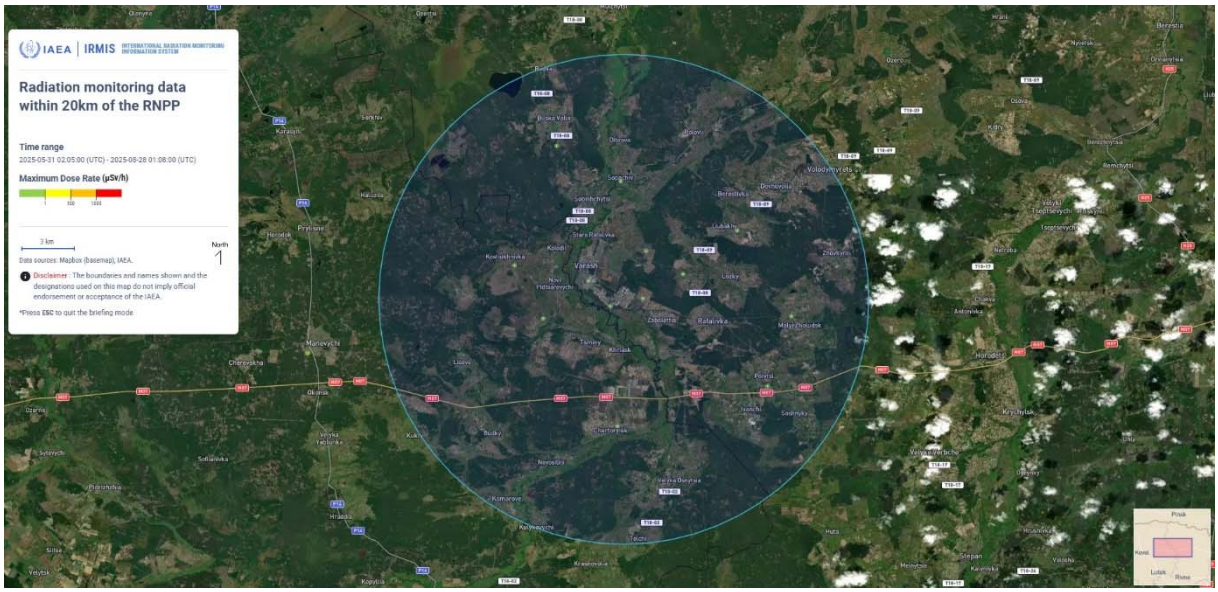
91. The three operating plants reported that they continued to cooperate and coordinate among themselves to ensure that they had the necessary parts for maintenance.

On-site and off-site radiation monitoring systems and emergency preparedness and response

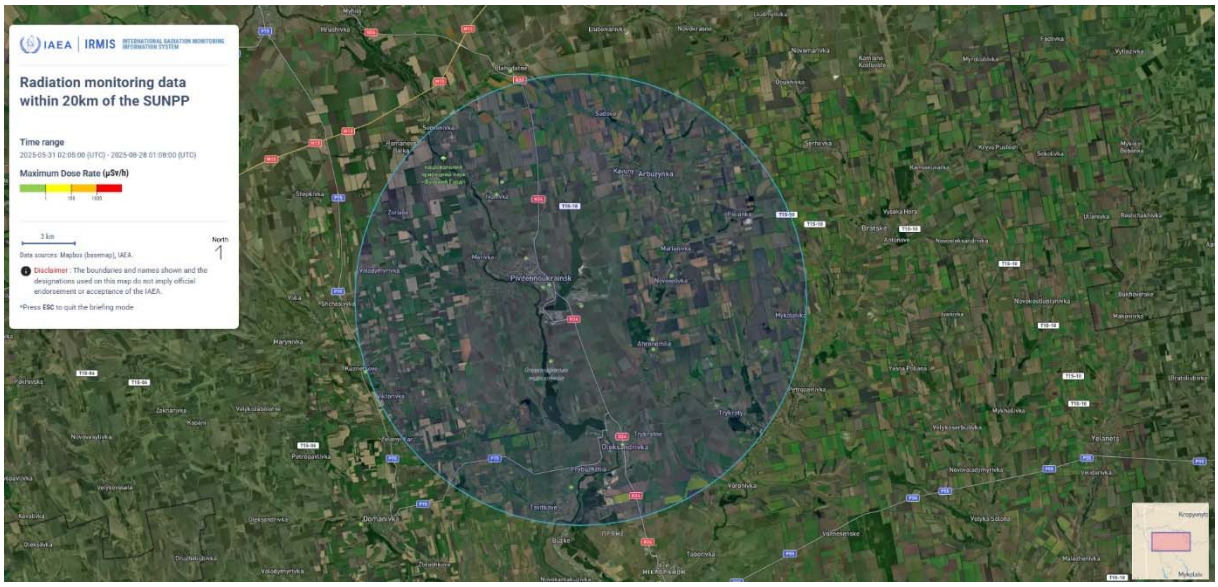
92. All off-site radiation monitoring stations were reported to be operational at the KhNPP, the RNPP and the SUNPP throughout the reporting period, with the measurements transmitted to and displayed on IRMIS. Radiation levels remained normal throughout the reporting period.



Radiation monitoring data from the monitoring stations in the 20 km radius around the KhNPP. Radiation levels are normal.



Radiation monitoring data from the monitoring stations in the 20 km radius around the RNPP. Radiation levels are normal.



Radiation monitoring data from the monitoring stations in the 20 km radius around the SUNPP. Radiation levels are normal.

93. During the reporting period, the Agency staff present at the KhNPP, the RNPP and the SUNPP visited the on- and off-site emergency centres at their respective sites. They discussed the current capacities and capabilities of these centres and did not report any issue related to nuclear safety and security.

ISAMIR visiting the RNPP on-site emergency and response centre in May 2025. (Photo: RNPP)

94. On 18 and 19 June 2025, ISAMIK observed an emergency exercise at the KhNPP, simulating a scenario involving shelling that led to site explosions, fire and casualties. The exercise also simulated damage resulting in a significant radioactive release in one of the turbine buildings, prompting the implementation of evacuation measures. The exercise was conducted with strong engagement and participation, demonstrating a commendable level of performance by the response organizations and advanced preparedness planning. At the same time, several areas for improvement were identified, along with corrective actions to be considered for future exercises.

Communications

95. All means of communication remained available during the reporting period.

96. Agency staff reported that inspectors from the SNRIU continued to be present at all three NPPs.

B.2.3. Chornobyl NPP Site and Other Facilities

97. During the reporting period, ISAMICH assessed that three of the Seven Pillars continued to be compromised either partially or fully at the ChNPP site, as described below.

98. No new issues affecting nuclear safety and security at any other facilities in Ukraine were reported to the Agency during the reporting period.

Physical integrity

99. No new events were observed during the reporting period affecting the physical integrity of facilities at the ChNPP site. However, ISAMICH reported hearing shelling and drone activity on

multiple occasions, some of which coincided with the ChNPP confirmations of drone presence in the vicinity.

100. On 7 August 2025, ISAMICH was informed that the site plans to start temporary repair work on the New Safe Confinement were scheduled for autumn 2025. However, many requirements — with respect to bidding procedures and supply chain readiness — still need to be fulfilled and could delay repair efforts. The team was further informed that the SNRIU was reviewing the documentation related to the repairs.

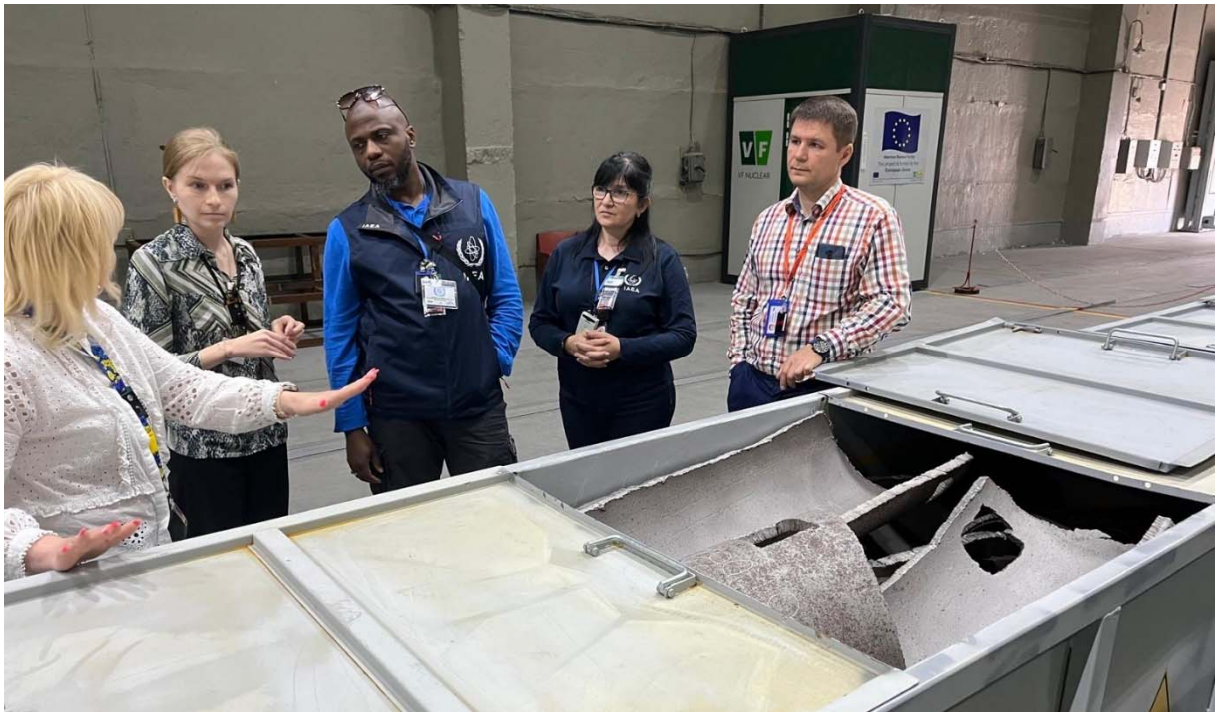
101. With the New Safe Confinement function compromised, the risk of radioactive material being released into the environment has increased in the event of a collapse of unstable structures within the Shelter Object.

Nuclear safety and security systems and equipment

102. The status of the New Safe Confinement, including its systems and equipment, remained unchanged from what was reported in document GOV/2025/26[35].

103. On 19 June 2025, an issue occurred with the double-lid system used in the hot cells containing spent fuel. The mechanism for closing a tube lid on top of a cut fuel assembly failed, halting further spent fuel processing and transport from interim storage facility ISF-1 to ISF-2. ISAMICH was informed that the issue was resolved by the beginning of July 2025.

104. All other nuclear safety and security systems at other facilities at the ChNPP site remained available and functional during the reporting period. However, ChNPP continues to inform that some of the nuclear safety and security systems require maintenance and funding to replace older equipment with more modern versions.



ISAMICH conducting a walkdown of the Free Release Facility on 10 June 2025. (Photo: ChNPP)

[35] Report by the Director General to the Board of Governors, document GOV/2025/26, issued on 2 June 2025, paras 88 to 94.

Operating staff

105. While the living conditions for staff have improved in a number of areas thanks to deliveries under the Agency's assistance programme, transport to and from the site remains a challenge. Nevertheless, the situation still allows for the safe and secure operation of the site.

Off-site power supply

106. During the reporting period, all of the off-site power lines that are usually available remained connected, except as described below:

- On 4 June 2025, three of the five 110 kV off-site power lines were temporarily disconnected and subsequently reconnected — though not simultaneously — reportedly due to adverse weather conditions;
- Between 25 June and 1 July 2025, one 110 kV off-site power line was disconnected for planned maintenance;
- Between 4 and 7 July 2025 and again from 15 July 2025, one 330 kV off-site power line was unavailable, reportedly due to the hot weather.
- On 17 July 2025, one 110 kV off-site power line was disconnected for planned maintenance.
- On 22 July 2025, two of the site's 330 kV off-site power lines were temporarily disconnected during the day – reportedly due to adverse weather conditions.
- On 25 July 2025, one 330 kV off-site power line was not available during the day — reportedly due to adverse weather conditions.
- Between 11 and 15 August 2025, one 110 kV off-site power line was disconnected for planned maintenance.
- On 17 August 2025, one 330 kV off-site power line was briefly disconnected due to a minor operational issue.
- Between 18 and 24 August 2025, one 110 kV off-site power line was disconnected for planned maintenance.

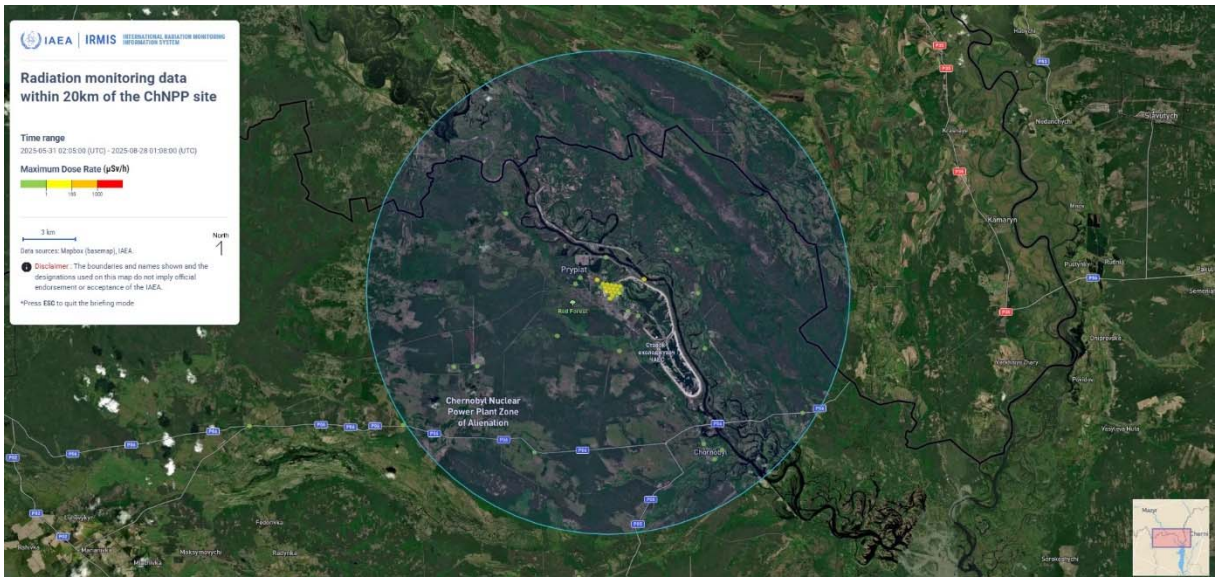
Logistical supply chain

107. Challenges in the supply chain and in transportation to and from the site remain, as the infrastructure in the region has been impacted by the armed conflict.

108. On 9 June 2025, the ChNPP reported on the poor condition of buses and persistent contractor issues with the transport company, resulting in frequent delays in staff arrivals and subsequent operational disruptions at the site.

On-site and off-site radiation monitoring systems and emergency preparedness and response

109. During the reporting period, off-site and on-site radiation monitoring systems were reported to be fully operational. Radiation levels and dose rates are continuously monitored and are reported to be normal, including in the area surrounding the damaged New Safe Confinement.



Radiation monitoring data from the monitoring stations in the 20 km radius around the ChNPP. Radiation levels are normal.

Communications

110. During the reporting period, all necessary means of communication with stakeholders remained available without interruption.

B.3. IAEA Technical Support and Assistance for Nuclear Safety and Security

111. The Agency continued to make progress in the delivery of its comprehensive programme of assistance to Ukraine. In addition to the in-person technical support and assistance provided through on-site expert missions — including the continued presence of Agency staff at the five nuclear sites in Ukraine, further information on which is provided in Section B.1. — the programme consists of the delivery of nuclear safety- and security-related equipment; a medical assistance programme for operating staff at the NPPs; and assistance in managing the environmental, social and economic impact of the flooding following the destruction of the Kakhovka dam. It also encompasses remote assistance and the deployment of rapid assistance should the need arise.

"Since the start of the conflict three and a half years ago, the IAEA has coordinated assistance for Ukraine of a wide range of technical equipment, medical supplies and other items that are of vital importance for nuclear safety and security. These deliveries are part of our overall efforts aimed at preventing a nuclear accident during this devastating war."

Director General Rafael Mariano Grossi, 24 July 2025

112. The Agency and its Ukrainian counterparts have continued to cooperate closely in order to better understand and address the priority needs of Ukraine as efficiently as possible as the situation evolves. This effort needs to continue, with strong coordination and cooperation at the national level, taking into account that the needs are great and the available resources are limited.

113. The Agency has also continued to work closely with a number of Member States and international organizations to ensure coordination in the provision of technical support and assistance to Ukraine, and to secure the funding necessary to enable the delivery of the assistance needed.

114. By 29 August 2025, 26 Member States[36] and one international organization[37] had offered extrabudgetary cash contributions to support Agency efforts in providing technical support and assistance to Ukraine in nuclear safety, security and safeguards, including for sustaining the continued presence of Agency staff at the five nuclear sites in Ukraine.

115. By 29 August 2025, the Agency had received a total of 23 official requests from Ukraine for equipment under different components of the comprehensive programme for assistance.

116. An overview of the latest developments regarding the different components of the comprehensive programme for assistance to Ukraine is presented below.

B.3.1. Delivery of Nuclear Safety- and Security-related Equipment

Requests for assistance in terms of nuclear safety- and security-related equipment

117. During the reporting period, the Agency received one new request from Ukraine for nuclear safety- and security-related equipment, which would be provided under the Agency's statutory functions and the operational arrangements[38] of the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (Assistance Convention). The request related to various needs at the ChNPP, the NSC KIPT and the State Specialized Enterprise Association "Radon". This brought the total number of official requests for such equipment since the start of the armed conflict to 18.

Offers of assistance

118. By 29 August 2025, 13 Member States[39] had offered assistance in the form of in-kind contributions of nuclear safety- and security-related equipment for supporting Ukraine. No new offers of in-kind contributions of equipment were received during the reporting period.

Delivery of nuclear safety- and security-related equipment

119. During the reporting period, the Agency organized a total of eight deliveries of nuclear safety- and security-related equipment to Ukraine, including deliveries to meet the needs of the energy sector, bringing the total number of such deliveries to 104.

120. These eight deliveries comprised equipment procured by the Agency under extrabudgetary contributions provided by Australia, Belgium, the European Union, Sweden, Switzerland and the United Kingdom. As a result of these deliveries, the ChNPP, the National Nuclear Energy Generating Company "Energoatom", the National Scientific Center "Institute of Metrology", the KhNPP, the SUNPP, USIE Izotop, the Ukrainian Hydrometeorological Centre and the hydrometeorological organizations of the State Emergency Service of Ukraine (SESU) received equipment including laboratory equipment, mobile laboratories, personal dosimetry equipment, physical protection equipment,

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[36] Australia, Austria, Belgium, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Republic of Korea, Malta, the Kingdom of the Netherlands, New Zealand, Norway, Poland, Saudi Arabia, Slovakia, Spain, Sweden, Switzerland, the United Kingdom (UK) and the United States of America (USA).

[37] The European Commission representing the European Union.

[38] The operational arrangements include the IAEA Response and Assistance Network (RANET) and the Operations Manual for Incident and Emergency Communication (EPR-IEComm 2019) available at: International operational arrangements | IAEA.

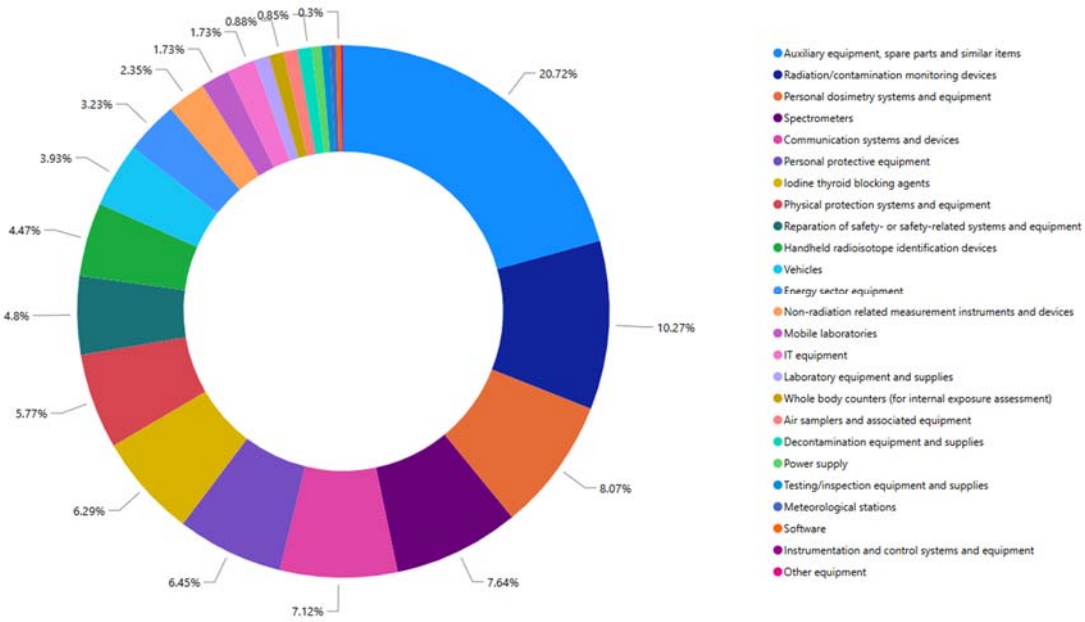
[39] Australia, Canada, France, Germany, Greece, Hungary, Israel, Japan, Romania, Spain, Sweden, Switzerland and the USA.

radiation/contamination monitoring devices, and a freight vehicle to transport radioactive material and auxiliary equipment.

Battery charger delivered to the KhNPP on 30 June 2025 (left, photo: KhNPP) and multipurpose environment activity radiometers delivered to the Ukrainian Hydrometeorological Center and the hydrometeorological organizations of SESU on 1 July 2025 (right, photo: Ukrainian Hydrometeorological Center)

Unloading the freight vehicle for the transport of radioactive material for USIE Izotop, 22 July 2025. (Photo: USIE Izotop)

121. Following these deliveries, the value of the nuclear safety- and security-related equipment delivered to Ukraine since the start of the armed conflict amounts to €16.9 million[40].



Overview of the monetary value of items delivered to 21 different organizations in Ukraine since the start of the armed conflict — totalling €16.9 million — as a percentage of the total value of the nuclear safety- and security-related equipment.

122. During the reporting period, the Agency continued working with Canada and Ukraine to agree on the Assistance Action Plan to enable the third and final shipment of donated equipment and resumed discussions on delivery of the in-kind contribution from Japan to Ukraine.

123. Additional nuclear safety- and security-related equipment procured by the Agency is expected to be transported to 13 different organizations in Ukraine in the coming months. The total cost of these expected deliveries exceeds €4.5 million. Additional nuclear safety- and security-related equipment is in various stages of procurement and exceeds €1.6 million, with many more items and pieces of priority equipment in the preparation and funding allocation stage.

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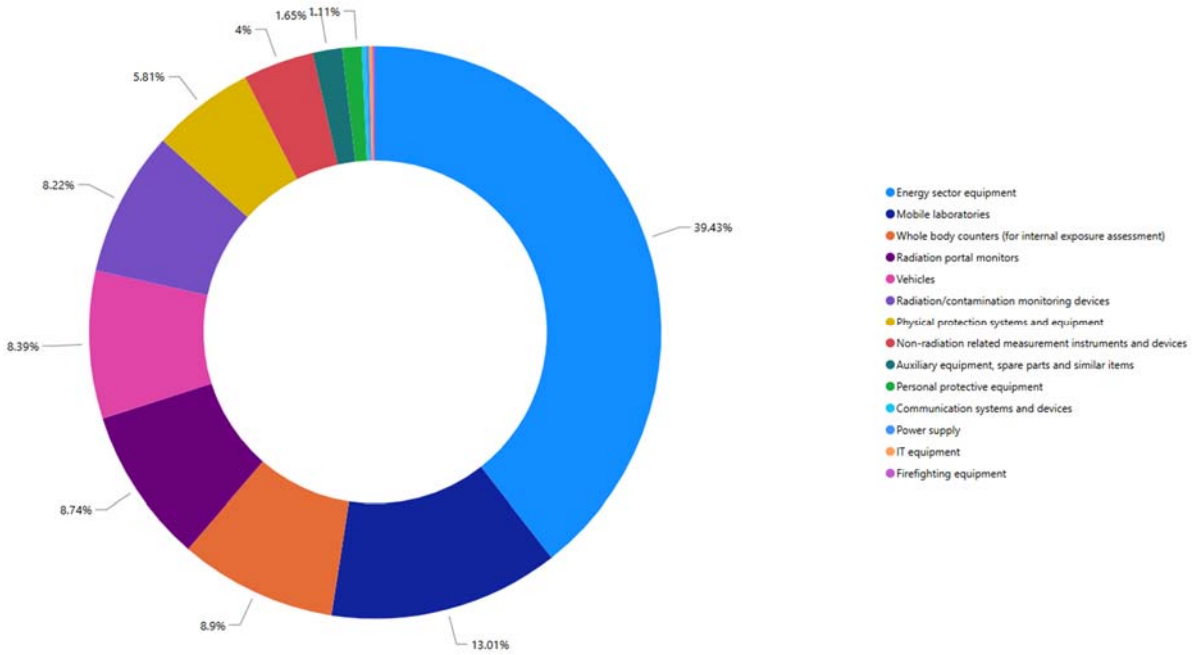
[40] Includes in-kind contributions and equipment provided through partnerships.



Overview of the monetary value of nuclear safety- and security-related equipment — either in transit or pending readiness — as a percentage of the total value of items procured for delivery to Ukraine.

B.3.2. ISAMRAD

124. During the reporting period, ISAMRAD missions continued to be planned and conducted (see B.1.2). Relevant assistance activities continue to be discussed and coordinated, taking into account the nuclear safety- and security-related equipment already requested from the Agency or delivered by the Agency to designated organizations to enhance the safety and security of radioactive sources. This coordination also considered equipment currently being procured or prepared for delivery (see B.3.1).

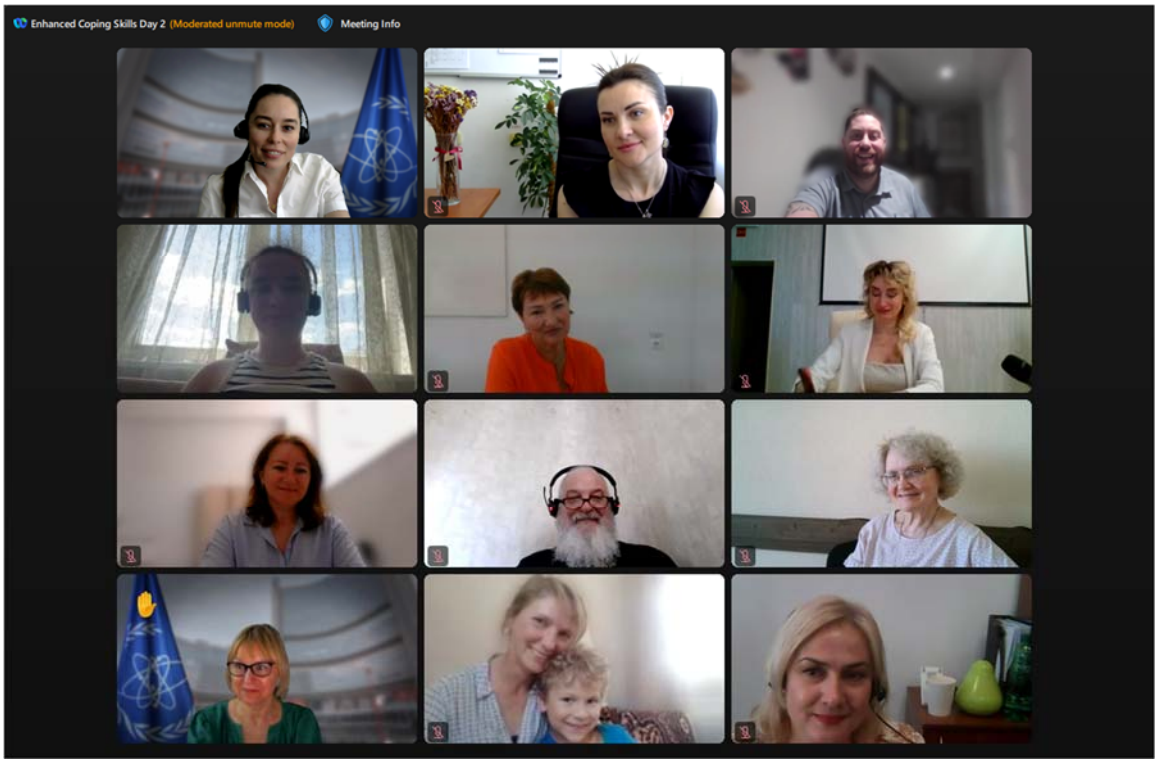
B.3.3. Medical Assistance for Operating Personnel at NPPs

125. During the reporting period, the Agency received one new request for assistance within the framework of the medical assistance programme, bringing the total number of such requests to seven. The request comprised filtering and respirator masks, as well as potassium iodide tablets.

126. The Agency organized a total of four deliveries of medical equipment and supplies to Ukraine during the reporting period, bringing the total number of such deliveries to 44.

127. The deliveries comprised equipment and supplies procured by the Agency under extrabudgetary contributions provided by Austria, France, Japan and Norway. As a result of these deliveries, the ChNPP received essential amenities and supplies aimed at improving the living conditions of the staff; the National Research Centre for Radiation Medicine received a whole body counter, the RNPP medical unit received an ultrasound device and Slavutych City Hospital received radiography systems.

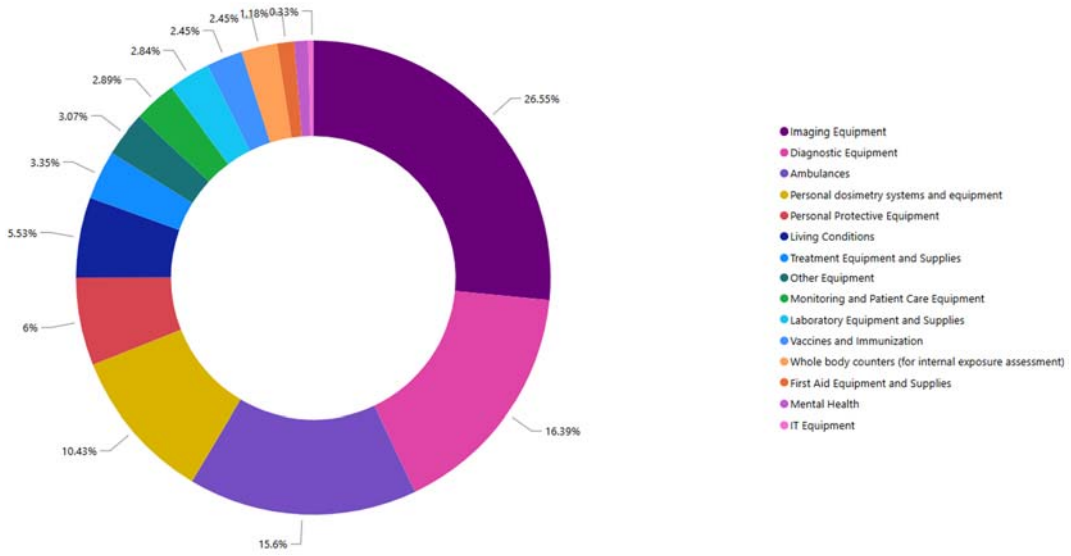
128. From 30 June to 4 July 2025, a new series of remote mental health workshops were conducted for NPP psychologists with expert and financial support from the United Kingdom.



Participants of the mental health training on 3 July 2025.

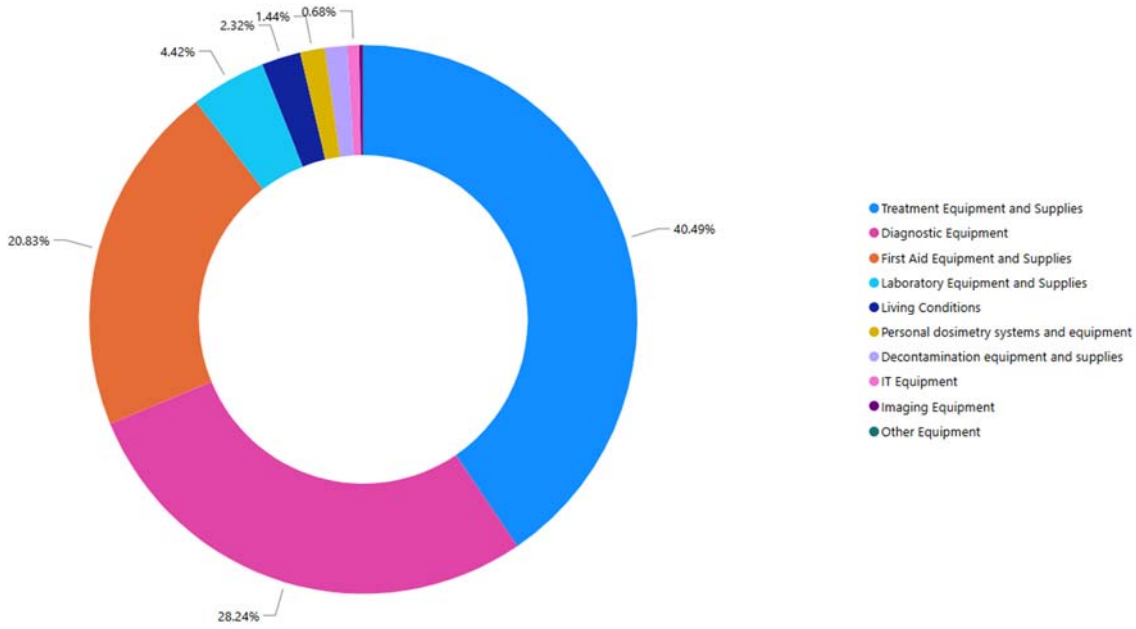
The whole body counter delivered to the National Research Center for Radiation Medicine on 11 June 2025. (Photo: NRCRM)

129. Following these deliveries, the value of the medical equipment and supplies delivered to Ukraine since the start of the armed conflict amounts to €2.1 million.



Overview of the monetary value of items, including radiation protection and monitoring equipment for 15 beneficiary organizations under the medical assistance programme — totalling €2.1 million — as a percentage of the total value of medical equipment and supplies.

130. Additional medical equipment and supplies procured by the Agency are expected to be transported to seven different organizations in Ukraine in the coming months. The total cost of these expected deliveries exceeds €0.5 million. Additional medical equipment and supplies worth approximately €1.7 million is in various stages of procurement.



Overview of the monetary value of items, including radiation protection and monitoring equipment in transit or under procurement for beneficiary organizations of the medical assistance programme — totalling approximately €2.2 million — as a percentage of the total value of medical equipment and supplies.

B.3.4. IAEA Support and Assistance Mission to the Kherson Oblast (ISAMKO)

131. No new request for assistance for nuclear or isotopic technique-based equipment and supplies (or similar) was received from Ukraine during the reporting period. The total number of official requests remains three, covering the needs of the Ministry of Health of Ukraine, its Regional Centres for Disease Control and Prevention in areas affected by the destruction of the Kakhovka dam, and its healthcare institutions in Kherson; the Ukrainian Geological Survey under the Ministry of Energy and its regional laboratories; the State Service of Ukraine on Food Safety and Consumer Protection and its regional laboratories; the Ukrainian Hydrometeorological Institute of the State Emergency Service of Ukraine; and the State Scientific Research Institute of Laboratory Diagnostics and Veterinary and Sanitary Expertise in Kyiv.

132. During the reporting period, the Agency arranged three deliveries under this programme, bringing the total number of deliveries to four.

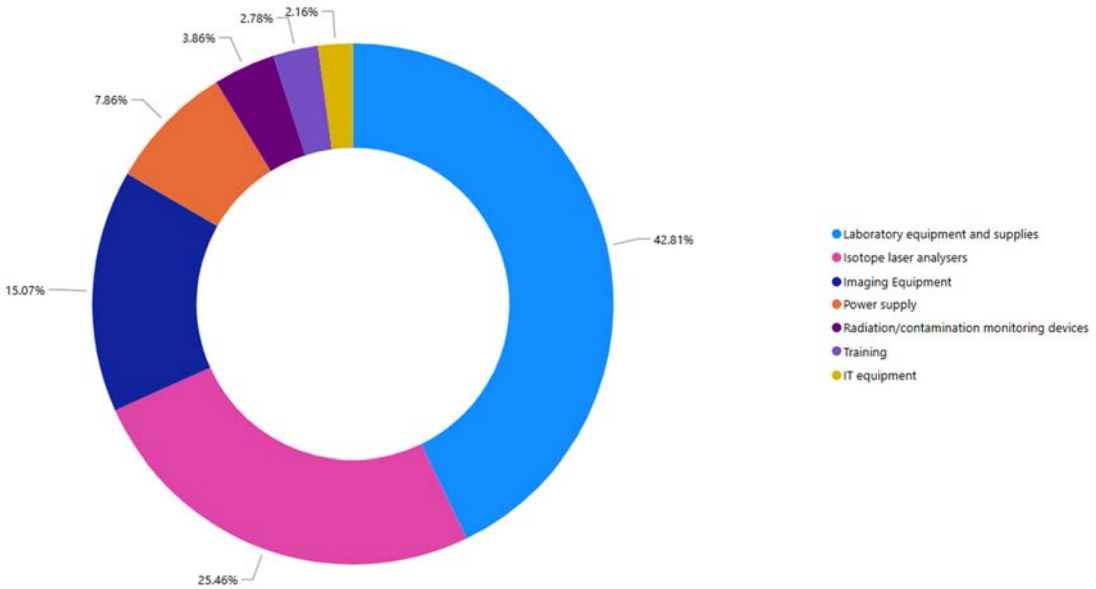
133. The deliveries, funded by Belgium and Japan, included dosimetry equipment and multipurpose environment activity radiometers for the Ukrainian Geological Company, as well as a real time polymerase chain reaction (PCR) cycler — a nuclear-derived technique for fast and accurate disease analysis following the flooding — and a diesel generator for the regional state laboratory in Mykolaiv Province, which was severely affected by the destruction of the Kakhovka dam in June 2023.

Real time PCR cycler delivered to the Mykolaiv regional state laboratory on 21 July 2025. (Photo: Mykolaiv regional state laboratory)

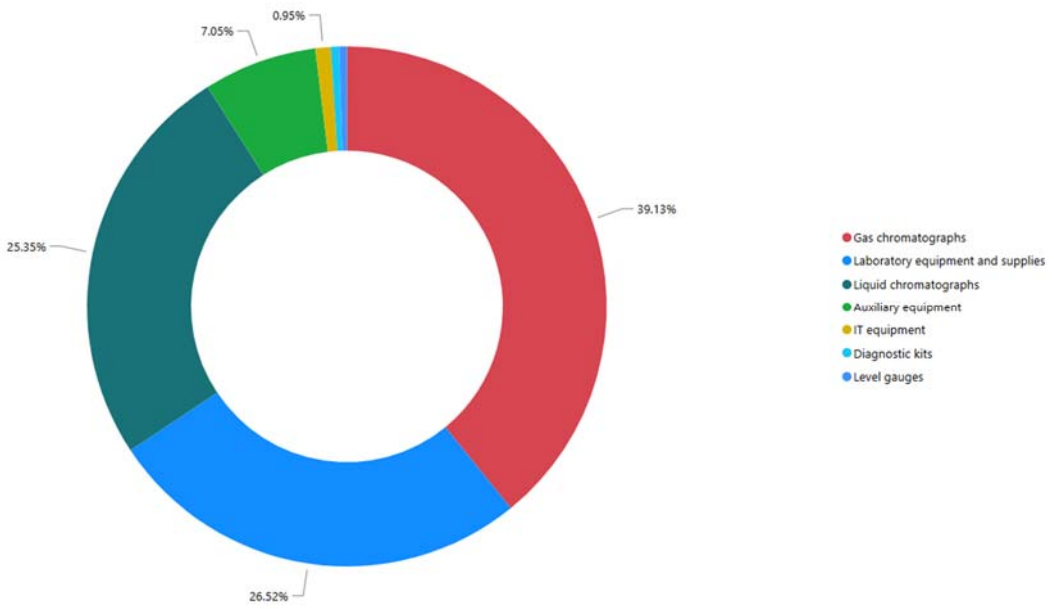
Diesel generator delivered to the Mykolaiv regional state laboratory on 21 July 2025. (Photo: Mykolaiv regional state laboratory)

134. Following these deliveries, the value of the equipment and supplies delivered to Ukraine amounts to approximately €0.2 million.

135. In addition, deliveries are pending for equipment and supplies worth over €0.2 million. Additional equipment exceeding €1.9 million is in various stages of procurement, with many more items and pieces of priority equipment worth €1.7 million in the preparation and funding allocation stage.



Overview of the monetary value of items — totalling €0.2million — as a percentage of the total value of equipment and supplies in transit for five beneficiary organizations of the ISAMKO programme.



Overview of the monetary value of items — totalling approximately €1.9 million — as a percentage of the total value of equipment and supplies under procurement as part of the ISAMKO programme.

136. In cooperation with the ISAMKO focal point, the Agency identified several beneficiary organizations with relevant expertise in non-destructive testing and potential opportunities to contribute directly to ongoing ISAMKO activities. Ukrainian counterparts are working to define an interim strategic approach to ensure the effective use of any such future assistance.

B.3.5. Remote Assistance

137. No remote assistance in the form of training in the areas of nuclear safety and security was delivered to Ukraine during the reporting period.

B.3.6. Deploying Rapid Assistance

138. No nuclear or radiological emergency involving nuclear facilities or activities involving radioactive sources was declared during the reporting period, and no deployment of rapid assistance was requested.

C. Implementation of Safeguards in Ukraine

C.1. Background

139. Ukraine acceded to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) as a non-nuclear-weapon State in December 1994. Ukraine subsequently brought into force a comprehensive safeguards agreement (CSA) with the Agency in connection with the NPT in January 1998 and an additional protocol (AP) thereto in January 2006.

140. The Agency implements safeguards at 35 nuclear facilities and more than a dozen locations outside facilities (LOFs) in Ukraine. The safeguards implementation effort is concentrated at 4 NPP

sites, which host 15 operational power reactors, and at the ChNPP site, which hosts 3 shut down reactors, the reactor damaged in the 1986 nuclear accident, and 2 spent fuel processing and storage facilities.

141. On 25 February 2022, Ukraine submitted to the Agency a special report under Article 68 of its CSA informing the Agency that "as a result of the temporarily occupied territory of Chernobyl region, Ukraine has lost control over nuclear material" subject to safeguards on the ChNPP site. Ukraine submitted two additional special reports to the Agency, dated 4 March and 5 July 2022, regarding Ukraine's loss of control over nuclear material at all facilities on the Zaporizhzhya site and at three LOFs in south-eastern parts of Ukraine, respectively.

142. Despite the very challenging circumstances, the Agency has continued to implement safeguards in Ukraine, to verify the declared nuclear material at declared facilities and LOFs and/or design information at such facilities.

C.2. Recent Developments

143. Since the Director General's previous report, the Agency has continued to rely on remotely transmitted data from its cameras, seals and unattended monitors to maintain continuity of knowledge over declared inventories of nuclear material. All data collected by these systems were transmitted successfully to the Agency's Headquarters during the reporting period. The Agency has maintained its continuous acquisition and analyses of open source information, and its analyses of satellite imagery covering nuclear installations in Ukraine. This has proved to be essential for the Agency in the preparation of its in-field verification activities, in particular at the Zaporizhzhya site. The Agency has been acquiring and analysing satellite imagery and continuously monitoring all available open source information to track developments and to assess the operational status of the plants, including the detection of possible damage caused by shelling at the site.

144. With the establishment of a continuous presence of Agency staff at the KhNPP, the RNPP, the SUNPP and the ZNPP, as well as at the ChNPP site, safeguards activities have been integrated with the various IAEA Support and Assistance Missions to the extent possible. Designated safeguards inspectors typically comprise part of the technical staff continuously present in Ukraine. For efficiency reasons, Agency inspectors are scheduled so as to be present whenever safeguards activities are planned — for example, to conduct physical inventory verifications or spent fuel transfer verifications — and otherwise provide technical support to the ongoing safety and security missions. Independent safeguards missions are planned, as needed, for activities that cannot be covered in the course of IAEA Support and Assistance Missions, including the installation or maintenance of safeguards equipment.

145. During the reporting period, the Agency successfully conducted physical inventory verifications at a number of facilities in Ukraine. The Agency verified spent fuel that was transferred from the RNPP and SUNPP to the centralized storage facility at the ChNPP. The Agency also carried out a number of complementary access visits in Ukraine. In addition, the Agency verified the transfer of spent fuel from the spent fuel storage at the ChNPP to dry storage at Chornobyl. The participation of Agency inspectors as part of the various IAEA Support and Assistance Missions has continued to enable the implementation of interim verifications of declared nuclear material inventories. Finally, Agency technical staff continued to travel to the ChNPP and other sites to install and maintain the Agency safeguards systems that monitor the loading and transfer of spent fuel from NPPs and the spent fuel pond at the Chornobyl site to dry storage at Chornobyl.

D. Summary

146. The armed conflict continues to threaten the nuclear safety and security in Ukraine. Three and a half years into the conflict, drone strikes are observed to have intensified significantly, further endangering the nuclear safety and security of all of Ukraine's NPPs.

147. For over three months, the ZNPP has relied on a single off-site power line, as military activity has reportedly prevented the repair and reconnection of the backup line. On 4 July 2025, the ZNPP experienced its ninth total loss of off-site power since the start of the armed conflict, highlighting the precarious state of nuclear safety and security at the site. The Agency continues to assess that six of the Seven Pillars remain fully or partially compromised.

148. The reduced water level in the ZNPP cooling pond remains a concern. The Agency notes that the ZNPP implemented additional measures to help maintain the availability of water required for the non-essential service water system. If this cooling water system becomes unavailable, it could affect several systems and result in further degradation of nuclear safety at the ZNPP.

149. ISAMZ continued to report frequent sounds of explosions at varying distances from the site and gunfire originating both within and outside the site perimeter. ISAMZ was also informed of drone-related military activity near the site and at varying distances from it — including in the city of Enerhodar, where most staff live. In addition, ISAMZ reported the ongoing presence of Russian armed forces and military equipment at the site. These activities continue to put the Five Principles and the overall nuclear safety and security of the plant at great risk.

150. The Agency's ability to make its assessment and report impartially and objectively on the nuclear safety and security situation at the ZNPP, and to fully assess whether all Five Principles are being observed at all times, continues to be limited by the restrictions on access and information imposed on ISAMZ at the site.

151. During the reporting period, the ChNPP site, the KhNPP, the RNPP and the SUNPP continued to face challenges arising from the continued military activity in Ukraine. Agency staff present at these sites frequently reported air raid alarms, some of which required them to shelter.

152. During the reporting period, Agency staff on the ground observed that additional air attacks had taken place at the substations they had visited — facilities essential to the safe operation of Ukraine's NPPs. Some of these substations had partially regained functionality and repairs on critical equipment were still ongoing.

153. The Agency continued to provide technical support and assistance to Ukraine related to nuclear safety and security, and to make progress in delivering various components of the comprehensive programme of assistance to Ukraine.

154. The Agency maintained a continuous presence at all nuclear sites without interruption. The rotations at the ChNPP site, the KhNPP, the RNPP and the SUNPP were completed as planned during the reporting period, while the rotations at the ZNPP continued to face challenges arising from the ongoing military activities putting the safety of Agency staff at risk and were conducted with delays.

155. As of 29 August 2025, a total of 217 missions comprising 176 Agency staff members had been deployed as part of the continued presence at all five nuclear sites in Ukraine, totalling 474 person-months.

156. During the reporting period, 18 deliveries of procured nuclear safety and security equipment, medical equipment and supplies, and other items based on nuclear or isotopic techniques were delivered to various organizations in Ukraine, bringing the total to 152. Since the start of the armed conflict, more than €19.2 million[41] of equipment has been delivered to 29 organizations in Ukraine.

157. The Agency continued implementing the second phase of ISAMRAD, while noting the challenges posed by the ongoing military activity in initiating efforts to recover the high-activity radioactive sources that remain vulnerable due to the armed conflict.

158. The Agency continues to provide technical support and assistance to Ukraine in the area of nuclear safety and security, a major undertaking that relies on substantial technical, human and financial resources. These efforts are made possible through significant cash and in-kind extrabudgetary contributions from 30 Member States and the European Union. To maintain the current level of programme delivery through to the end of 2026, an estimated €22 million in funding is still required.

159. The Director General is grateful to all donors for the extrabudgetary contributions provided to the Agency for assisting Ukraine in the area of nuclear safety, security and safeguards and would welcome any further support.

160. The continued commitment of Member States and their close cooperation with the Agency are essential for ensuring nuclear safety and security in Ukraine under all circumstances and for providing assistance efficiently while ensuring the timely delivery of the Agency's programmatic activities.

161. The Agency has continued to undertake a vital verification role to reach independent conclusions that nuclear material under safeguards remains in peaceful activities and that safeguarded facilities are not used for the undeclared production or processing of nuclear material. The Agency continues to implement safeguards in Ukraine, including in-field verification activities, in accordance with Ukraine's CSA and AP. Based on the evaluation of all safeguards-relevant information available to the Agency to date, the Agency has not found any indication that would give rise to a proliferation concern.

Annex: Chronology of Events from 31 May to 29 August 2025

Events at the Zaporizhzhya Nuclear Power Plant

- On 4 June 2025, ISAMZ was informed of a planned project to pump water from the Dnipro River into the cooling pond. The aim is to maintain a sufficient water level to cool one operating reactor initially, followed by a second unit, until the pond reaches its full capacity.
- On 4 June 2025, ISAMZ was informed that a leak in one reactor unit's ESW system, discovered during maintenance, had been repaired. The team was further informed that the leak had been caused by corrosion.
- On 5 June 2025, ISAMZ reported hearing at least five explosions, each preceded by gunfire. The ZNPP told the team that all incidents involved "drone neutralization" near the training centre premises and there were no immediate reports of any damage.

[41] Includes in-kind contributions and equipment provided through partnerships.

- On 9 June 2025, ISAMZ was informed that Rostekhnadzor[42] would perform pre-licensing inspection activities at ZNPP reactor Units 1 and 2, whose current Ukrainian operational licences are due to expire in December 2025 and February 2026, respectively.
- On 13 June 2025, ISAMZ was informed that one of the site's 11 groundwater wells was out of operation due to a defective pump. The pump was replaced, and the well was returned to service on 20 June 2025.
- On 19 June 2025, ISAMZ was informed that a pump in one of the site's 11 groundwater wells built after the destruction of the Kakhovka dam was not working and would be replaced.
- On 28 June 2025, ISAMZ was informed of drone attacks that had taken place on 27 June 2025 causing damage to several vehicles near the site's cooling pond — approximately 600 metres from the nearest reactor unit — and igniting a fire that burnt the vegetation.
- On 4 July 2025, the ZNPP lost all off-site power when its last remaining 750 kV power line was disconnected, forcing it to rely on EDGs for more than three and a half hours. It was the ninth time the ZNPP had suffered a total loss of off-site power since the start of the conflict.
- On 8 July 2025, ISAMZ was informed that all of the EDGs' diesel fuel tanks had been replenished following almost four hours of operation during the total loss of off-site power event.
- On 12 July 2025, ISAMZ reported hearing approximately 1000 rounds of small arms fire, coming from within the site perimeter at the training centre. During a site walkdown on 13 July 2025, ISAMZ observed small calibre casings on the ground around Units 5 and 6.
- On 14 July 2025, ISAMZ was informed that three drones had attacked the ZNPP training centre between 2 p.m. and 3 p.m. local time on 13 July 2025, resulting in damage to the building. ISAMZ requested access to visit the scene, which was not approved.
- ISAMZ was informed by the ZNPP of alleged shelling in the city of Enerhodar on 17 July 2025 and that the power line to the Enerhodar region was damaged and the area was without power. ISAMZ visited the affected sites on 19 July 2025 and observed broken windows and walls. No casualties were reported.
- On 18 July 2025, ISAMZ was informed that the ZNPP was considering two options to maintain the Unit pumping station intake water levels (i.e. the ZNPP inlet water channel).
- On 30 July 2025, ISAMZ carried out independent radiation measurements to confirm that, contrary to social media posts, there had been no increase in radiation levels at the ZNPP site.
- On 1 August 2025, ISAMZ conducted a walkdown of some of the site's waterwork facilities where they were informed that no concrete work had been carried out in any of the cooling pond channels.
- On 6 August 2025, ISAMZ heard several rounds of outgoing artillery fire coming from very near the site perimeter while conducting a walkdown at the ZNPP's dry spent fuel storage facility.

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[42] See para. 2 above.

- On 12 August 2025, ISAMZ held a technical meeting with the ZNPP to follow up on the cooling water situation and its usage across the site.
- On 12 August 2025, ISAMZ observed smoke while in the plant's administrative building, where its office is located, following reports of a fire near the cooling towers. The next day, the team observed burnt trees in the vicinity of the cooling towers.
- On 17 August 2025, ISAMZ was informed that the ZNPP had completed the construction of a dam to isolate the ZNPP inlet channel from its cooling pond, in order to preserve as much cooling water as possible for the Units' main transformers.

Events at the Khmelnytskyy, Rivne and South Ukraine Nuclear Power Plants

- On 3 June 2025, ISAMIK and ISAMIR were instructed to seek shelter during a day marked by unusually frequent air raid alerts. The team at the RNPP took shelter three times — twice reportedly in response to cruise missile alerts and once due to a ballistic missile alert.
- On 9 June 2025, ISAMIK and ISAMIR were required to shelter at the respective sites. In addition, ISAMIR had to shelter at their residence in the early morning.
- On 18 June 2025, ISAMIK was required to shelter during a walkdown of the site's on-site emergency response centre.
- On 18 and 19 June 2025, ISAMIK observed a two-day emergency exercise.
- On 21 June 2025, ISAMISU observed a drone approximately one kilometre from their hotel.
- On 27 June 2025, ISAMIK were required to shelter at their residence.
- On 3–4 July 2025, ISAMIR were required to shelter overnight at their residence.
- On 4 July 2025, ISAMISU was informed that the Dniprovska 750 kV power line had been disconnected between 5.30 p.m. and 9.52 p.m. local time.
- On 5 July 2025, ISAMIR were required to shelter at their residence.
- On 10 July 2025, ISAMIR and ISAMIK were required to shelter at their respective sites.
- On 15 July 2025, ISAMIK were required to shelter at the site.
- On 21 July 2025, ISAMISU was informed that the power supply to one of the site's 330kV was interrupted and recovered on the same day.
- On 28 July 2025, ISAMIK was required to shelter at both their hotel and the site.
- On 31 July 2025, ISAMIK was required to shelter at the site.
- On 1 August 2025, a reactor unit at KhNPP scrammed due to a failure of the controller of the feed water pump. The fault was rectified and power was restored to normal levels by 3 August 2025.
- On 4 August 2025, ISAMIK were required to shelter twice at the site.
- On 11 August 2025, ISAMIK were required to shelter at the site.

Events at the Chornobyl Nuclear Power Plant Site

- No new events were reported affecting the ChNPP site.

Events at Other Facilities

- No other events were reported affecting other facilities and activities in Ukraine.