NUCLEAR SAFETY BULLETIN

RECENT DEVELOPMENTS IN NUCLEAR SAFETY IN HUNGARY

DECEMBER 2025

CONTENTS:

H-1539 Budapest 114, P.O. Box 676

Phone: +36 1 436-4800

Telefax: +36 1 436-4804

E-mail: haea@haea.hu

Website: www.haea.hu

Hungarian Atomic Energy Authority

GENERAL

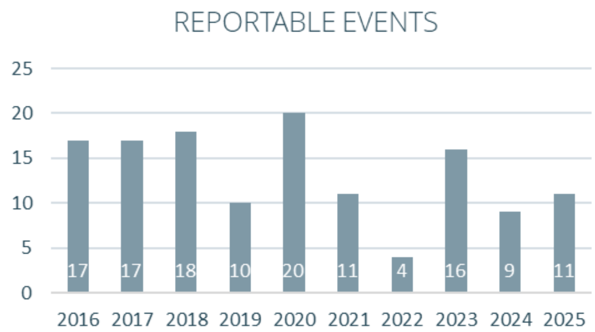
SAFETY PERFORMANCE ASSESSMENT OF NUCLEAR FACILITIES IN THE FIRST HALF OF 2025

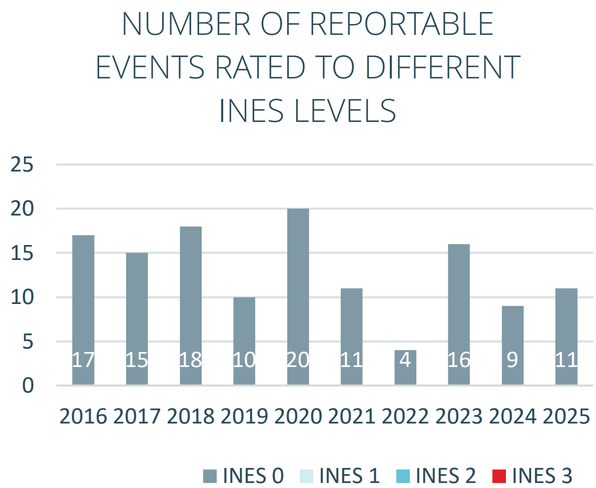
The Hungarian Atomic Energy Authority (HAEA) regularly evaluates the safety performance of operators of nuclear facilities. The main sources of data for the assessment are regular reports and event reports of the licensees, the records of regulatory inspections.

A brief extract is provided below on the safety performance assessment of nuclear facilities in the first half of 2025.

Paks Nuclear Power Plant

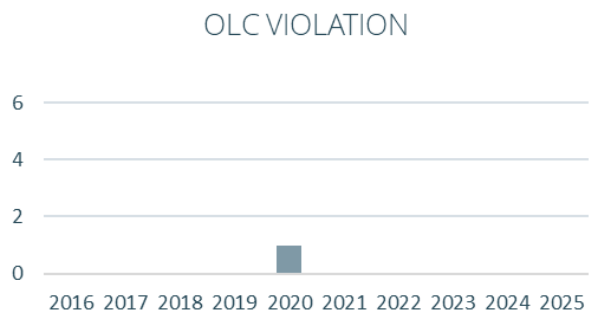
In the first half of 2025, eleven reportable events occurred. Four of the incidents were due to equipment failure, one was due to exceeding an administrative limit, four were due to human error, and two were due to documentation deficiencies.

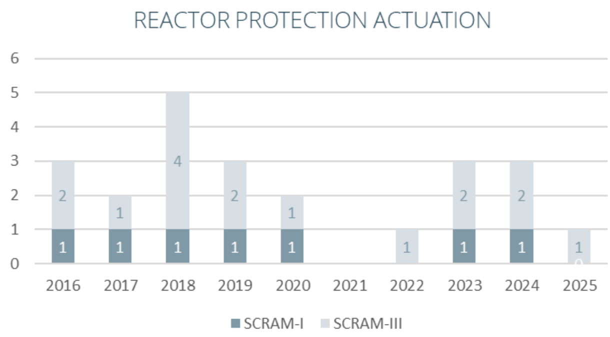




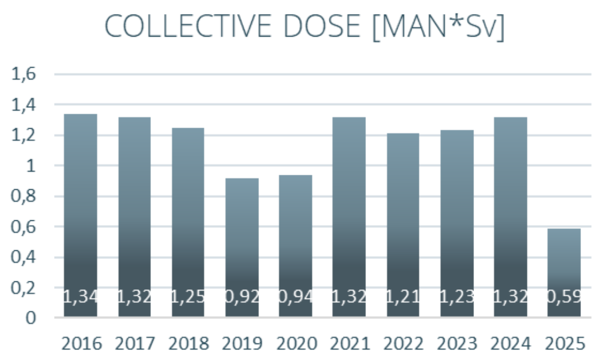
All 11 reportable events were preliminarily classified as „below scale” corresponding to Level 0 on the seven-level International Nuclear Event Scale (INES). No event classified as INES 1 or higher has occurred since 2012.

There was no OLC (Operational Limits and Conditions) violation in the first half of 2025.



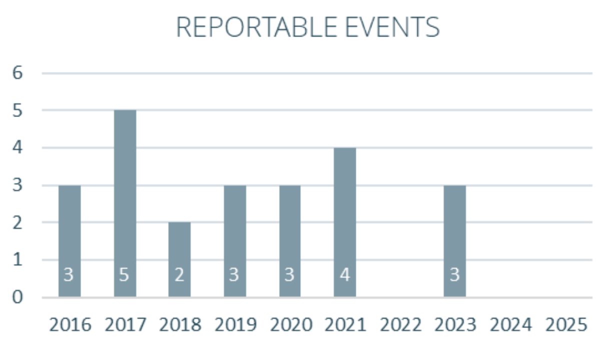


In the first half of 2025, no SCRAM-I reactor protection activation occurred, one SCRAM-III reactor protection activation occurred, which was caused by an equipment failure.



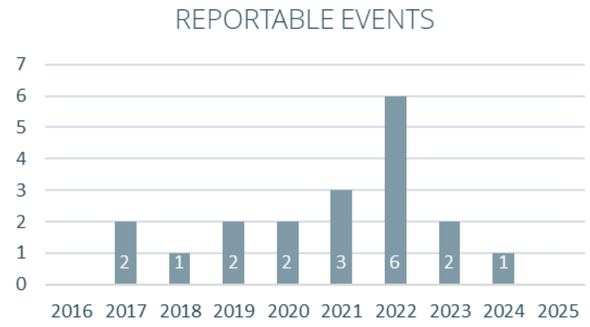
The collective dose for workers in the first half of 2025 was similar to last year for the given period (first half of the year).

Budapest Research Reactor

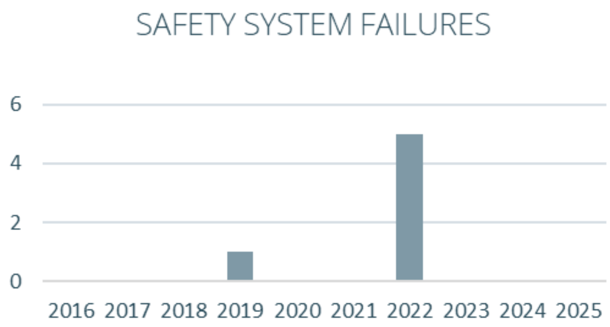


No reportable events occurred at the Budapest Research Reactor in the first half of 2025.

BUTE Training Reactor



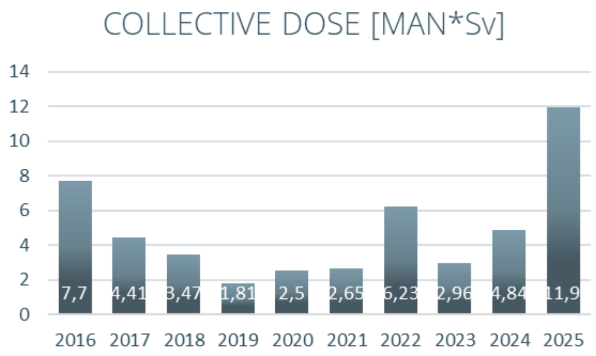
In the first half of 2025, no reportable event occurred at the Training Reactor.

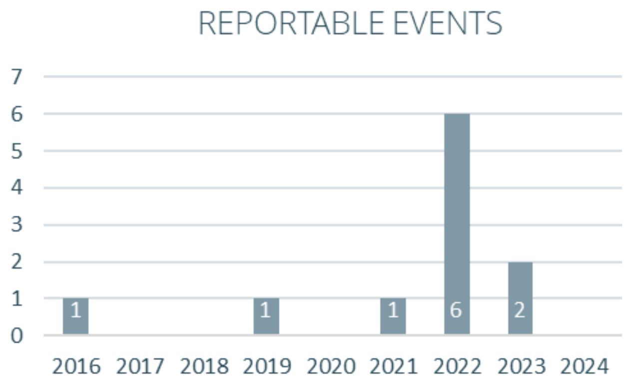


In the first half of 2025, no safety system failure occurred.

Interim Spent Fuel Storage Facility

In the first half of 2025, the collective dose of workers was 11.96 man*mSv, which is 9.28 man*mSv more than the previous half-year value. The increase was caused due to that significantly more high-radiation work was carried out than in the previous half-year, with a larger operating staff.





Three reportable events occurred in the first half of 2025. All three events were related to equipment failure.

LEGAL CHANGES IN THE SECOND HALF OF 2025

Updated provisions for the transport of dangerous goods

The amended regulations on international inland waterway, road and rail transport (ADN, ADR and COTIF), which are renewed every two years, were promulgated in Government Decree 165/2025. (VI. 24.), Government Decree 166/2025. (VI. 24.) and Government Decree 167/2025. (VI. 24.).

The amendments aim to incorporate the latest international regulations into the Hungarian legal system, thereby ensuring the safety of transport and compliance with EU and UN regulations.

The amended regulations will be mandatory in Hungary from 1 July 2025, so the HAEA will perform the approval and licensing tasks related to radioactive materials, their packaging and transport in accordance with the new regulations from 1 July 2025.

Amendment to the Criminal Code

The 2025 amendment to the Criminal Code affected Act CXVI of 1996 on Atomic Energy (Atomic Energy Act). The aim of the amendment is to uniformly address crimes related to the use of substances classified as narcotics, such as drugs and new psychoactive substances. As of the amendment, all such substances are considered “mind-altering substances”, so their abuse may result in more severe punishment. The legislator introduced this change in the relevant section of the Atomic Energy Act, so according to the amendment, those persons who, among other things, have committed the crime of mind-altering substance abuse may not work in safety-sensitive jobs in nuclear facilities.

Supplement of the municipal associations established for monitoring and informational purposes

The latest amendment to Government Decree 214/2013. (VI. 21.) on the rules for subsidies provided from the Central Nuclear Financial Fund to local government associations for monitoring and information purposes supplements the distribution formula used for the distribution of budgetary support to be provided from the Central Nuclear Financial Fund to local government associations for monitoring and information purposes established under Section 10/A of the Atomic Energy Act taking into account the population of each association. The amendment ensures a more proportionate distribution of support among the associations by taking into account the population of the local government associations for monitoring and information purposes, thus making the information and monitoring activities carried out by the associations more efficient. The adopted amendment will enter into force on 1 January 2026.

ABOUT ATOMIC ENERGY – FOR EVERYONE IN DUNAÚJVÁROS: MORE THAN 200 PARTICIPANTS JOINED THE EDUCATIONAL EVENT

The latest edition of the “About Atomic Energy – for Everyone” event series achieved another great success, this time hosted by the University of Dunaújváros, which provided an excellent venue for the program. Organized jointly by the HAEA and the TIT Studio Association, the event welcomed more than 200 students and teachers on 29 May.

The day offered a diverse and engaging program featuring scientific lectures, an interactive exhibition, and a new online quiz game. Together, these elements created an enjoyable educational experience and encouraged the active participation of students interested in nuclear science and technology.

Following an introductory lecture on radiation, participants explored the potential of nuclear energy in the 21st century, as well as the principles of fusion energy production. The audience also gained insight into the Chernobyl and Fukushima nuclear accidents and the key lessons learned from these events. The lectures concluded with a look at the possible future applications of nuclear technologies in space.

In addition to the lectures, visitors could attend the interactive exhibition to learn about the various applications of nuclear energy and the management of radioactive waste as well as take a virtual tour of the Paks Nuclear Power Plant using virtual reality glasses, take radiation measurements, and discuss their questions directly with experts.

An online quiz game between lectures was a very successful innovation: students could compete with each other by answering questions related to the lectures through an application.

IRRS MISSION IN HUNGARY

An International Atomic Energy Agency (IAEA) team of experts has found that Hungary demonstrates a strong commitment to nuclear and radiation safety. The team’s review, held from 6 to 17 October 2025, found Hungary’s nuclear regulator to be in high compliance with IAEA safety standards, making it a competent and trusted regulator.

The Integrated Regulatory Review Service (IRRS) mission conducted at the request of the Government of Hungary and hosted by the HAEA, aimed to review Hungary’s governmental, legal, and regulatory framework for nuclear and radiation safety. IRRS missions are designed to strengthen the effectiveness of the national nuclear and radiation safety regulatory infrastructure, based on IAEA safety standards, while recognizing the responsibility of each country to ensure nuclear and radiation safety. This was the second full scope IRRS mission in Hungary, the first taking place in 205, with the follow-up in 2018.

The 12-day mission covered areas such as legal and regulatory frameworks, responsibilities and functions of the government and regulatory bodies, and their management systems. The team also reviewed Hungary's oversight of facilities and activities including nuclear power plants, research reactors, radiation source facilities as well as waste management facilities.

During the mission, the IRRS team - comprised of international experts from 16 countries, as well as four IAEA staff and two observers: from the European Commission, and from France - held meetings with officials from the HAEA, the Ministry for Energy, the National Centre for Public Health and Pharmacy, and the Baranya County Government Office. They also observed regulatory oversight activities at facilities, including the Paks NPP, the National Radioactive Waste Repository and the Training Reactor at the Budapest University of Technology and Economics.

The IRRS team found that since the follow-up mission in 2018 Hungary has made notable progress in establishing a capable and independent HAEA. It said the establishment of a national safety policy and government support for regulatory institutions was evidence of the government's prioritization of nuclear and radiation safety.

Several good performances were formally identified by the IRRS team, including:

- The special legal status of the HAEA - whereby it reports directly to the Parliament - allows for a high level of effective independence;
- The HAEA management's comprehensive steps in enhancing safety culture at the regulatory body, including the 2024 "Year of Safety Culture" initiative and the development of a strategy and action plan for safety culture.

"Hungary has established a solid foundation for regulatory oversight through its independent regulatory body, the HAEA, and demonstrated a proactive approach to continuous improvement," said Ramzi Jammal, Executive Vice-President and Chief Regulatory Operations Officer of Canadian Nuclear Safety Commission, and the IRRS Team Leader. "We have found high levels of compliance with IAEA safety standards and evidence that HAEA is a competent and trusted national regulator."

The IRRS team provided recommendations and suggestions to support Hungary in further enhancing its regulatory framework. These included:

- Clarifying allocation of tasks and responsibilities for regulatory control of medical exposures within the governmental, legal and regulatory framework for safety
- Establishing an integrated management system
- Documenting key regulatory processes and procedures within the management system
- Reviewing and improving the existing arrangements between relevant regulatory authorities, as necessary, for the effective coordination of their regulatory functions

"The outcome of this mission demonstrates Hungary's dedicated and strong commitment to strengthening its regulatory infrastructure and, consequently, enhancing nuclear and radiation safety nationwide," said Karine Herviou, IAEA Deputy Director General and Head of the Department of Nuclear Safety and Security.

The team also noted that the HAEA's resources have been incrementally increased to accommodate the country's growing nuclear industry. The IRRS team emphasized the importance of continued government support—both financial and human resources—to ensure the regulator's capacity to fulfil its mandate.

"Continuous improvement is of paramount importance to the Hungarian Atomic Energy Authority, as it strengthens the robustness of our regulatory framework and enhances nuclear safety to protect both the public and the environment," said Andrea Beatrix Kádár, HAEA President. "The self-assessment process and the IAEA Integrated Regulatory Review Service (IRRS) mission provide valuable opportunities to further develop our procedures, practices, and regulations, ensuring that Hungary's regulatory system remains aligned with the ever-evolving and increasingly rigorous international standards."

The final report on the review will be sent to the Hungarian Government approximately three months after the end of the mission. To read the IAEA's Press Release please click here.

PAKS NUCLEAR POWER PLANT

SHUTDOWN OF A MAIN CIRCULATION PUMP DUE TO INVALID TECHNOLOGICAL SIGNAL

On 2 June 2025, at the nominal power of Unit 4 of the Paks Nuclear Power Plant (Paks NPP), the 2nd Main Circulation Pump (MCP) tripped due to a technological protection signal indicating an invalid high seal water temperature. The reactor protection system reduced the reactor power to the heat removal capacity based on the number of operating MCP units. After the protective action, the staff stabilized the unit's parameters and began troubleshooting.

Prior to the MCP trip, during the cleaning of the control room ventilation duct, foreign objects fell into the corridor between the instrumentation and control cabinets, near the instrument responsible for triggering the protection system. Although a direct causal link between the MCP trip and the falling objects could not be reconstructed, this work activity was the closest to the event in both time and location.

According to the International Nuclear and Radiological Event Scale (INES), the event was rated as Level 0 (below scale), meaning it had no safety significance.

DETERIORATION OF THE NATURAL CIRCULATION DURING SHUTDOWN OF UNIT 4

On 10 June 2025, while Unit 4 of the Paks NPP was in a shutdown and depressurized condition, the effectiveness of the reactor's natural circulation cooling deteriorated due to an unintentional loss of reactor coolant. Upon detection of the anomaly, the operating personnel stopped the unintentional drainage and refilled the reactor, thereby restoring adequate natural circulation cooling.

The unintentional drainage of the reactor occurred due to an improperly reclosed reactor drainage pathway. The investigation and safety assessment of the event are still in progress.

PAKS II PROJECT

FIRST NOTIFICATION ACKNOWLEDGEMENT PROCEDURES IN THE CASE OF PAKS II

In order to implement a more modern, inspection- and risk-oriented approach, the HAEA has developed a new oversight concept. As a result, in 2024, the Atomic Energy Act and HAEA Decree 1/2022. (IV. 29.) on the nuclear safety requirements of nuclear facilities and on related regulatory activities (1/2022. HAEA Decree) were amended so that notification-acknowledgement and deviation notification- acknowledgement procedures were introduced for the oversight of the manufacturing and procurement of systems and components of new nuclear facilities.

According to the rules of 1/2022. HAEA Decree, which has been in force since 9 May 2024, the licensee of the new nuclear facility – such as Paks II Nuclear Power Plant Ltd. (Paks II. Ltd.) may conduct a notification-acknowledgement procedure for systems and components classified in safety classes 2 and 3 (instead of manufacturing and procurement permitting), while a manufacturing and procurement permitting procedure must still be conducted for those classified in safety class 1. In the procedure, the licensee notifies on the planned manufacturing or procurement, and encloses or makes available the necessary documents, and based on the documentation the HAEA makes a decision (acknowledge it, impose conditions and/or retention/inspection points or rejects it) after examining the fulfillment of the relevant requirements.

The first procedures of this type were conducted by the HAEA in connection with the manufacturing notifications received on 7 March 2025 for the reactor's internal structures, i.e. the core claddings, core baffle, and protective tube units and were acknowledged in a simplified decision issued on 28 March 2025.

PARTIAL OCCUPATION PERMITTING PROCEDURE FOR GROUND IMPROVEMENT ASSOCIATED WITH THE NUCLEAR ISLAND OF UNIT 5 OF PAKS II NUCLEAR POWER PLANT

The site preparation of the new nuclear power plant units at Paks consists of several interlinked phases, such as cut-off wall construction to provide water cut-off, deep soil mixing (DSM) ground improvement, and excavation from the work area, first down to above the groundwater level, then to the design depth. Ground improvement beneath the nuclear island of Unit 5 began in autumn 2023, followed by excavation to the design level — reaching depths of up to 23 meters in places — commencing on 24 September 2024. The HAEA prescribed that, upon completion of the ground improvement, an occupation (put-into-use) permitting procedure must be conducted to evaluate fitness for intended and safe use.

On 3 December 2024, Paks II. Ltd. submitted an application for a partial occupation permit application specifically for the ground improvement beneath the nuclear island of Unit 5 and for the secant pile wall required to form the sidewalls of the excavation pit. This partial permit application was justified in this form because the HAEA's earlier construction permit covered the full ground improvement for Units 5 and 6, while the present procedure concerned only a portion of the realized structure. During the assessment of the application, however, an occupational safety incident occurred at the construction site directly affecting the ground-improved block that was the subject of the procedure.

In November 2024, cracks appeared in the stabilized soil mass functioning as the working-area retaining wall of the Unit 5 excavation pit, and on 30 January 2025 several stabilized blocks locally detached and collapsed at two corners of the southern lower berm. According to Paks II. Ltd., the structural integrity of the excavation pit was not compromised; nevertheless, the HAEA took immediate measures: following an on-site inspection, it halted works in the affected areas and recorded this in the construction e-log, in an order, and in a decision. On 31 January 2025, the HAEA also suspended the partial occupation permitting procedure.

Paks II. Ltd. promptly began securing the endangered sections and executing an action plan. This included removal of unstable zones, rock-bolt reinforcements, installation of supplementary supports, geodetic and 3D laser-scanning condition surveys, the inclusion of additional reference points in monitoring, controlled management of inflowing waters, as well as the development of a long-term preservation procedure based on daily walkdowns. After fulfilling the regulatory obligations, on 22 April 2025 Paks II. Ltd. requested the lifting of the work ban.

On 12 June 2025, the HAEA conducted an on-site inspection and determined that, from a construction oversight authority perspective, there was no obstacle to lifting the ban. Accordingly, on 19 June 2025 a decision was issued to resume the previously prohibited construction activities, and the HAEA also terminated the suspension of the permitting procedure. The decision also contained long-term safety and preventive requirements: scheduled implementation of certified protective mesh for erosion protection of vertical stabilized faces, review of geotechnical–geodetic threshold levels, recording of daily walkdowns and checklists in the e-log, and review of alarm levels and intervention protocols. By August 2025, steel-mesh protection of the designated vertical wall sections had been completed.

Throughout the summer and autumn, the HAEA requested deficiency corrections in the application and requested Paks II. Ltd. for oral statements to demonstrate occupational and nuclear safety of the constructed ground-improved structure. Priority assessment topics included evaluation of seismic and frost resistance, water tightness, homogeneity, and other parameters verifying the function of the ground improvement, as well as water-chemistry analyses of inflows into the excavation pit.

As part of the procedure, on 21 October 2025 the HAEA carried out another on-site inspection, attended also by representatives of the Ministry of Interior’s National Directorate General for Disaster Management and the Supervisory Authority for Regulatory Affairs Mining Supervision among the consulted authorities. Based on on-site visual inspection, the HAEA determined that the facility is suitable for intended and safe use. The authority also conducted weekly inspections on site throughout the entire process.

On 4 November 2025, the HAEA issued a partial occupation permit for the ground improvement of the Unit 5 nuclear island and prescribed further obligations. Based on that, the Paks II. Ltd. must notify the authority in advance of the schedule for dismantling the embankment supporting the southern working-area retaining wall and must upload the relevant documents to the e-log. The parameters of the ground improvement must be incorporated into, and properly documented within, the structural and seismic calculations for each construction phase. Any significant change in the condition of the excavation pit — such as failures of the dewatering system, adverse water pressures, geological or hydrogeological deviations, or cessation of work — must be reported to the HAEA. In the event of changes in water pressure during execution of the blinding concrete layer, the revised anti-flotation design documentation must be submitted, while after a work shutdown of at least 90 days, a comprehensive review and documentation of the entire excavation pit is mandatory prior to work restart. These requirements aim to uphold the primacy of nuclear safety, ensure the long-term service life of the nuclear island and the lasting stability of the site, and enable the timely detection and management of potential deviations and unfavourable ground conditions.

RADIOACTIVE WASTE MANAGEMENT

THE NEW OPERATING LICENSE OF THE RADIOACTIVE WASTE TREATMENT AND DISPOSAL FACILITY

The Radioactive Waste Treatment and Disposal Facility (RWTDF), situated in Püspökszilágy, is used for the storage and disposal of low and intermediate level radioactive waste of institutional origin.

In order to implement the temporary storage of the so-called significant activity radioactive sources awaiting placement in a new storage area and to ensure the feasibility of the planned safety enhancement program, it became necessary to amend the operating license.

According to the technical strategic concept and its implementation plan developed by the Public Limited Company for Radioactive Waste Management (PURAM), the waste management and storage systems of the RWTDF were expanded to perform the tasks necessary for the management of the significant activity radioactive sources awaiting delivery.

According to the technical concept, the storage of the significant activity radioactive sources is implemented with a storage container specially designed for this purpose and the torpedoes compatible with it. The containers are stored in the so-called containerized radioactive source storage area, which is constructed in the external storage area of the facility.

Furthermore, in order to ensure the feasibility of the safety improvement program planned for the near future, PURAM has reclassified the I-numbered pool row located in the external storage area, which includes storage pools A01-A24, as a temporary storage facility.

In accordance with the applicable regulations, the PURAM submitted the operating license application for RWTDF on 12 November 2024 to the HAEA. In accordance with the legislation, the HAEA, as part of the procedure, held an electronic public hearing on 17 March 2025. Based on the review and evaluation of the application, taken into account all the competent authorities' opinions and legal requirements, the operating license of the RWTDF was issued on 23 June 2025.

PUBLIC HEARING IN THE HAEA LICENSING PROCESS RELATED TO THE SPENT FUEL INTERIM STORAGE FACILITY

On 26 June 2025, the HAEA conducted an electronic public hearing, held without the physical attendance of the interested parties. The purpose of the hearing was to collect the views and comments of the public and other clients involved in the licensing procedure titled "Application for a commissioning license for Phase 3 (Chambers 25–28) of the Spent Fuel Interim Storage Facility of the Public Limited Company for Radioactive Waste Management." As announced on 3 June 2025, interested parties were invited to submit their questions, comments, and opinions to the public hearing email address from 19 June until midnight on 26 June.

INTERNATIONAL COOPERATION

AUTHORITY MEETING IN EXTENDED QUADRILATERAL FORMAT IN SLOVENIA

The annual meeting of the Czech, Hungarian, Slovak and Slovenian nuclear authorities took place in Portoroz, Slovenia, on 13-14 May 2025, with the participation of delegations from the Finnish and Polish partner authorities. The Hungarian delegation was led by Andrea Beatrix Kádár, President of the Hungarian Atomic Energy Authority.

Authorities at the meeting presented the main organisational and legislative changes over the past year. Regulators are increasing their workforce capacities to ensure the oversight of new build and planned nuclear power plants and are revising existing legislation and regulatory framework.

Participants also discussed European and international issues of mutual interest – including activities of their bilateral and multilateral relations, cooperation with the International Atomic Energy Agency – and provided an overview of events that took place in their respective nuclear facilities and on corresponding regulatory practices.

The negotiating parties also reviewed the regulatory tasks related to the construction of new nuclear power plants and the further lifetime extension of existing units. In most of the participating countries intensive preparation is ongoing for the oversight of new nuclear power plants: the authorities are preparing for future licensing tasks, in particular for small modular reactors through competence building, consultations, pre-licensing and international cooperation.

Participants are actively involved in supporting the authorities of Ghana, Nigeria, Turkey and Jordan, thus the meeting also provided an opportunity to review the status of EU projects aimed at capacity building of nuclear safety authorities in these non-EU countries.

The next meeting will take place in 2026 in the Czech Republic.

THE 69TH GENERAL CONFERENCE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY IN VIENNA

The 69th General Conference of the IAEA took place in Vienna between September 15 and 19, 2025, with the participation of a delegation from the HAEA led by President Andrea Beatrix Kádár. Every year, the event provides an opportunity for delegations from IAEA member states to hold bilateral and multilateral discussions and organize thematic meetings.

Within this framework, the President of the HAEA met with several heads of nuclear authorities, as well as with representative of the Nuclear Safety Technology Division of the Paris-based

Nuclear Energy Agency. The theme of the latter event was a new initiative aimed at training nuclear professionals.

Hungary provided information on training courses in the field of nuclear safety, security and radiation protection in the framework of a side event. Hungary plays a significant role in this area. The President of the HAEA, in her opening remarks highlighted the outstanding achievements of the HUN-REN Centre for Energy Research in the field of nuclear safety, becoming the first IAEA Collaborating Centre in the field of nuclear forensics.

The HAEA delegation held bilateral meetings with several delegations, among others from Canada, United Kingdom, Egypt, Finland, France, Poland, Saudi Arabia, Turkey and Uzbekistan. The main objectives of the consultations included exploring further areas of potential cooperation and discussing current technical issues such as lifetime extension, SMR (small modular reactor) technology licensing, and the development of the necessary legal and regulatory framework.

The HAEA also organized a working lunch, which was attended by the heads of the nuclear authorities of Hungary, Czech Republic, Slovakia, Slovenia, Finland, and Poland. During the meeting, delegations reviewed the most important organizational and legislative changes affecting their operations, informed each other about project proposals prepared for the call for proposals announced by the European Commission to support nuclear authorities, and discussed developments related to national nuclear programs. The participants also agreed on measures to ensure more effective and closer cooperation.

NUCLEAR AND RADIOLOGICAL EMERGENCY RESPONSE

SUMMARY OF THE SITUATION AT NUCLEAR FACILITIES IN UKRAINE

In the second half of 2025, Ukraine's nuclear safety situation remained extremely unpredictable and vulnerable, similar to the previous months. The IAEA continues to maintain a constant presence at the country's key nuclear facilities. The expansion and escalation of the war have brought new challenges to light, the resolution of which requires increasing technical expertise and diplomatic experience.

Zaporizhzhia Nuclear Power Plant (ZNPP)

The power plant lost its entire external power supply for the tenth time in September 2025 due to military activity taking place approximately 1.5 kilometers far from the power plant. Since then, emergency diesel generators have been providing electricity for cooling the six shut-down reactors and the spent fuel pools, as well as for maintaining other safety-critical functions.

The ZNPP has the necessary personnel and spare parts to repair the damaged 750 kV and 330 kV transmission lines. Restoration work on the plant's external power supply began on the 18th of October - after long and complex negotiations with the mediation of the IAEA.

From late October to mid-November, a second temporary ceasefire window was established through IAEA mediation, allowing the full restoration of the backup 330 kV Ferosplavna-1 power line. As a result, the ZNPP once again had two external power supplies for the first time since May, which significantly improved the site's safety situation.

According to the IAEA, network instability in November required several power reductions at other Ukrainian power plants; however, the ZNPP's radiation protection parameters remained within normal ranges throughout the entire period. No increase in radiation levels occurred, and the reactors were maintained in a safe shutdown state during this time.

No increase in radiation levels has been observed, and the reactors remain in a safe, shut-down condition.

Chernobyl

The 330 kV power line serving the site and the 750 kV transmission line were disconnected in October 2025 from the grid due to observed voltage fluctuations. The safety systems and emergency diesel generators operated in accordance with regulations until both external power supply lines were restored.

At the end of November, the IAEA carried out a comprehensive assessment on the condition of the New Safe Confinement, which was struck by a drone attack in February. The inspection confirmed that approximately 330 openings had been created in the structure and that the crane system was also damaged; however, the load-bearing elements and the internal structure enclosing the reactor remains were not affected.

The IAEA emphasized that no radioactive material was released into the environment and that radiation levels at the site remain stable. The report highlights that more extensive restoration work is expected in 2026, but the current condition does not pose an immediate nuclear safety risk.

No increase in radiation levels was detected.

Khmelnytskyi, Rivne, and South Ukraine Nuclear Power Plants

Drone activity is common around facilities, often occurring directly within the safety zones of the plants. In September, a drone exploded approximately 800 meters far from the South Ukraine Nuclear Power Plant. Although these incidents have not caused direct damage or posed an immediate threat to nuclear safety, they subject the staff to constant psychological stress and reduce the flexibility of the on-site operations.

During October and November, these power plants were subjected to at least six grid-related attacks that led to the loss of certain power lines or required reductions in unit power output. On several occasions, IAEA on-site observers were forced to take shelter due to nearby explosions.

Measurement data consistently showed that radiation levels remained normal and that nuclear safety functions were not compromised.

The Khmelnytskyi, Rivne, and South Ukraine nuclear power plants continue to generate electricity for Ukraine.