



PUBLIC LIMITED COMPANY
FOR RADIOACTIVE WASTE
MANAGEMENT

THE SAFETY OF OUR FUTURE, THE RESPONSIBILITY OF OUR PRESENT!

VOLUME OF WASTE BY TYPE IN HUNGARY IN 2018 (HCSO)



**CONSTRUCTION RUBBLE
MANAGEMENT**

7 240 000 TONS



**INDUSTRIAL WASTE
MANAGEMENT**

5 965 000 TONS



**RESIDENTIAL WASTE
MANAGEMENT**

3 746 000 TONS



**HASARDOUS WASTE
MANAGEMENT**

658 000 TONS



**AGRICULTURAL AND FOOD
INDUSTRY WASTE MANAGEMENT**

623 000 TONS



RADIOACTIVE WASTE

415 TONS



SPENT NUCLEAR FUEL

70 TONS

FOREWORD

In the XXI. century humanity faces an ever-increasing energy demand. It is hard to imagine, how such a demand could be fulfilled without the utilization of nuclear energy. Radioisotopes and nuclear technology are also wide used for industrial, agricultural, medical and research purposes. These activities and the operation of the reactors in nuclear power plants result in radioactive waste and spent nuclear fuel. All irradiated materials must be safely stored for long periods and disposed of.

„Paks Nuclear Power Plant produced 16 286 GWh electricity in 2019.”

Recognising this need, the Atomic Energy Act of Hungary (Act CXVI. of 1996), decrees that all tasks related to radioactive waste and spent fuel storage and disposal must be carried out by a government-appointed institution. Thus, The Public Agency for Radioactive Waste Management was established on 2 June 1998 (from 7 January 2008 as Public Limited Company for Radioactive Waste Management, also known as PURAM-in alignment with other similar organisations of the European Union).

„Different types of radioactive isotopes have different characteristics, therefore their management as waste must take into account these attributes.”

Our Company operates according to the international and national regulations, considering any changes that might occur. New tasks are issued by the 2011/70/EURATOM Council Directive to establish a community framework for ensuring responsible and safe management of spent fuel and radioactive, which was accepted by the Council of Europe in 2011. The multiple modifications and amendments of the Atomic Energy Act aligned the act to the directive as well as introducing major changes: the management of the Central Nuclear Financial Fund (CNFF)- which provides the funding for radioactive waste management –was transferred to the Ministry of Technology and Industry (MTI), while the Hungarian Atomic Energy Authority (HAEA) received extended regulatory and supervisory power including radioactive waste

repositories. Since 1 July 2014 HAEA acts as Regulator over all PURAM facilities. The Company aims to fulfil all requirements set forth by legislation, with consideration to our short and medium-term tasks, while striving for effectiveness and high standards. We consider it important that the application of nuclear energy is transparent, therefore better accepted, and to recognise that the professionals working in the nuclear field think and act responsibly regarding future generations and the environment. We believe in clear and honest communication and declare that effective professional work can only be achieved if supported by the trust and acceptance of the public. For that it is essential that our activities are transparent and everyone can ascertain their safety.

„The electricity-consumption of Hungary has been constantly increasing since 2014, in 2019 (41 billions kWh) it was a third more than on the turn of the millennium.”

(HCSO)

CLASSIFICATION OF RADIOACTIVE WASTE:

According to state of matter:

LIQUID AND SOLID

According to activity:

VERY LOW, LOW AND INTERMEDIATE AND HIGH ACTIVITY WASTE

According to lifetime:

SHORT AND LONG-LIVED WASTE

• **Radioactive waste can only be disposed of permanently in solid form.**

• **If heat production is a factor to be considered for radioactive waste storage, then that waste is high activity waste.**

• **Those low and intermediate level radioactive wastes are considered short-lived, which contain radionuclide with half-lives longer than 30 years in a very limited amount.**

TASKS

01

Tasks related to planning and reporting

- development of a proposal on the national policy and national programme for radioactive waste and spent nuclear fuel management, including their review process
- preparation and review of short- and medium-term plans, compilation of proposal on the annual fees payable into the Central Nuclear Financial Fund
- compilation of the annual work programme financed from the Central Nuclear Financial Fund, preparation of professional and financial reports
- additional planning and reporting tasks requested by the manager of the Central Nuclear Financial Fund

02

Tasks related to installation

- extension of final repositories for low and medium level radioactive waste
- extension of Spent Fuel Interim Storage Facility
- preparation of final repository for high level radioactive waste, installation of an underground research laboratory for site research purposes

FINANCING

Managing radioactive waste is a long-term task. According to the principles of the Atomic Energy Act of Hungary, as well as international requirements determine that the generation which benefits from nuclear energy must also pay the costs of decommissioning. The Atomic Energy Act of Hungary established the Central Nuclear Financial Fund (CNFF) on 1 January 1998, which serves as a fund for the tasks related to the final disposal of radioactive waste, the interim storage of spent fuel, the closing of the nuclear fuel cycle and the decommissioning of nuclear facilities. The contributors to the allocated state fund are those companies, which „produce” radioactive waste, Paks Nuclear Power Plant to the largest extent. Minor contributors

are the Research Reactor of the Institute for Atomic Energy Research of the Hungarian Academy of Sciences and the training reactor of the Budapest University of Technology and Economics, for which the contributions are made by the central budget via the operator.

Other institutes and users utilizing nuclear energy fulfil their contribution duties specified by the Atomic Energy Act when their radioactive waste is transported to one of the repositories. The minister appointed to oversee the nuclear regulator also manages the Central Nuclear Financial Fund via its ministry (currently the Ministry for Innovation and Technology. The CNFF receives support from the central

budget to maintain value.

A medium- and long-term plan is prepared regarding the usage of the fund up to the decommissioning of the existing nuclear facilities. The plan is executed in year-to-year work programmes. Documents are prepared by PURAM.

The medium- and long-term plan is reviewed and updated annually, which is important to ensure that the Fund can realistically provide for far-in-the-future costs. Thus fulfilling the principle of the generation benefiting from nuclear energy pays the costs of radioactive waste disposal, not leaving unreasonable burden for future generations.

03

Tasks related to the storage of radioactive waste and spent nuclear fuel

- operation, guarding and closing of low and medium level radioactive waste final repositories
- operation and guarding of the Spent Fuel Interim Storage Facility
- operation, guarding and closing of the high-level radioactive waste final repository (currently the site selection process for the high-level radioactive waste repository takes place)
- transport of low-, medium- and high-level radioactive waste to their respective repositories

04

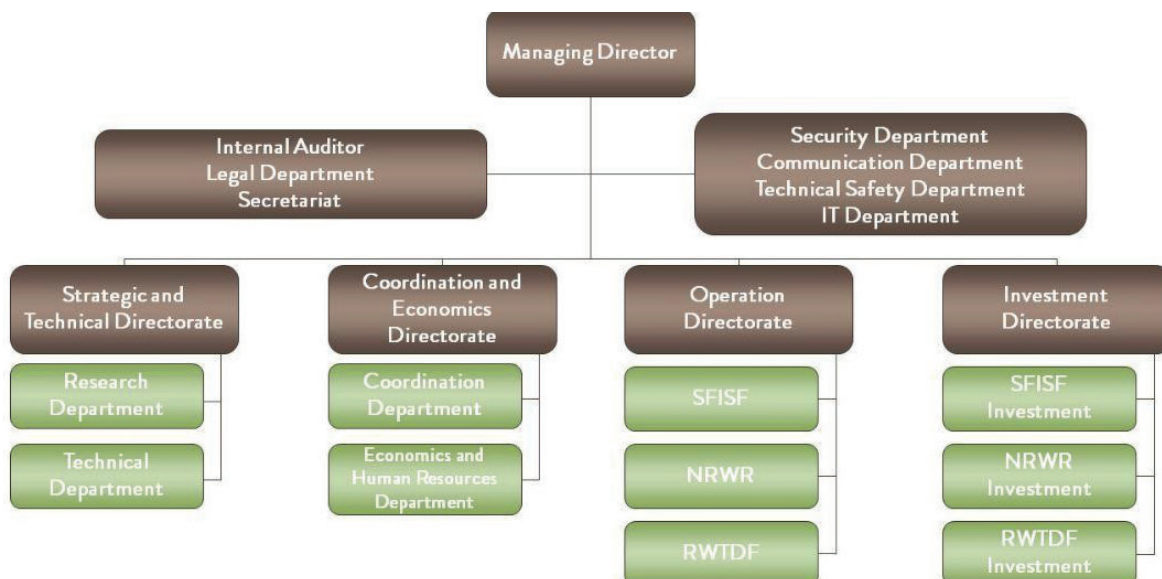
Tasks related to the decommissioning of nuclear facilities

- review of the preliminary decommissioning plan, preparation and review of the final decommissioning plan
- maintaining and guarding nuclear disposal facilities after close-down, until decommissioning is completed
- decommissioning and environmental remediation of nuclear facilities (not yet relevant)

ORGANIZATIONAL STRUCTURE

The owner of the Public Limited Company for Radioactive Waste Management is the Hungarian State, ownership rights are executed by the Hungarian National Asset Management Inc. The Ministry for Innovation and Technology, as the manager of the Central Nuclear Financial Fund, contracts PURAM with annual renewal to fulfil the tasks specified in the Atomic Energy Act of Hungary (Act CXVI. of 1996).

The Company is directed by its Managing Director, who is appointed by the CEO of Hungarian National Asset Management Inc. The management of the company comprises of senior experts of their field.



NATIONAL POLICY AND NATIONAL PROGRAMME

The European Council Directive 2011/70/Euratom of 19 July 2011 established a community framework for the responsible and safe management of spent fuel and radioactive waste. This directive requires member states to develop and maintain a national policy regarding spent nuclear fuel and radioactive waste. In order to achieve this objective, the Atomic Law of Hungary decrees that PURAM shall cooperate in the development of the proposal for national policy.

This work was completed at the beginning of 2015. The finalized proposal containing the professional recommendations of PURAM was presented to the Hungarian Parliament, which ratified the National Policy on the management of spent fuel and radioactive waste in its resolution 21/2015. (V. 5.) in April 2015. The National Policy declares the framework and principles of spent nuclear fuel and radioactive waste management as well as the principles for decommissioning nuclear facilities. The National Policy is revised every five years.

The national programme was developed based on the principles, as required by the aforementioned Council Directive. PURAM also contributed to the development of the technical draft of the national programme, which was sent in for review to the European Commission. Meanwhile, the Hungarian Atomic Energy Authority submitted the national report on the implementation of the principles in Hungary to the European Commission. The national programme based on the National Policy was approved in Government Decree 1459/2016. (VIII. 24.), with a review period of five years.

**Püspökszilágy és Kismémedi
RWTDF**
Radioactive Waste Treatment
and Disposal Facility
Low and intermediate level
radioactive waste



**Paks
SFISF**
Spent Fuel Interim
Storage Facility
Spent fuels

Nyugat-Mecsek
Investigational
Location for the high
level waste repository
High activity and
long half life radioactive
waste, spent fuel

**Bátaapáti
NRWR**
National Radioactive
Waste Repository
Low and intermediate
level radioactive waste

RADIOACTIVE WASTE TREATMENT AND DISPOSAL FACILITY (RWTDF)



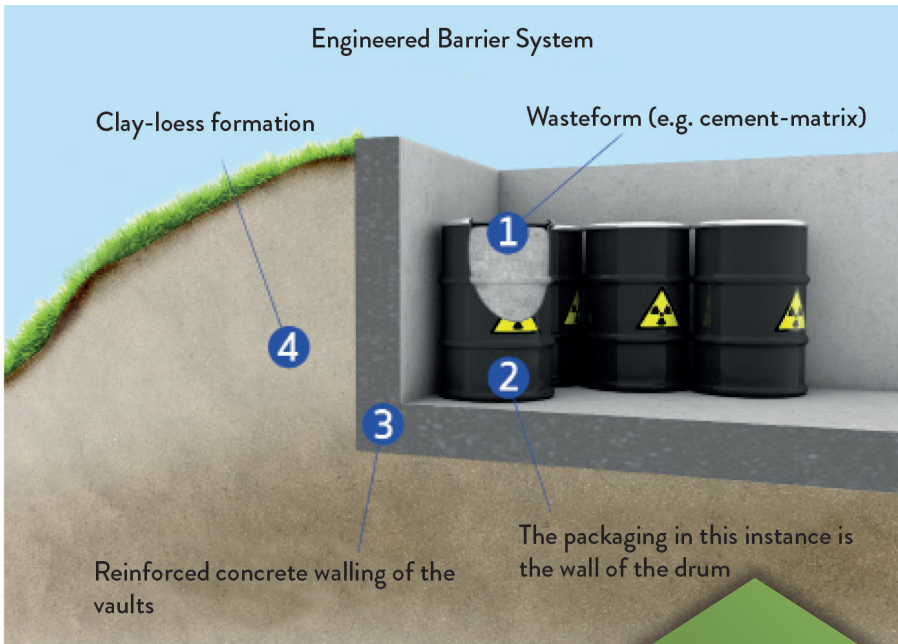
What is stored?

The task of this facility is to manage and dispose non-nuclear power plant origin, so-called institutional radioactive waste. Such waste has been generated alongside the utilization of isotope technologies since the 50's in Hungary, primarily in industrial, agricultural, medical, research, and training industries. The institutes of the listed industries generate significantly less radioactive waste, than the nuclear power plant. Presently approximately 3-15 m³ low and intermediate level radioactive waste and about 300 depleted sources as well as 1 000 sources removed from smoke detectors are generated annually.

Where is it stored?

The facility is located in between Kisémedi and Püspökszilágy. The location was selected due to its geological advantages, the area is on high ground, the soil is clay-loess, therefore ground water is at a depth of 20 metres, which ensures, that no isotopes will contaminate the sub-surface waters. The radiation controlled area in the facility consists of near-surface reinforced concrete pits, carbon steel and stainless steel storage wells, as well as temporary storage wells and containers in the basement storage area. The external storage pits and wells have a capacity of 5 040 m³, while the temporary storage within the technological building can store up to 300 m³ waste.





How is it stored? - Waste drums

In general, solid radioactive waste packed in steel drums is transferred to the site by PURAM by its own vehicle at previously negotiated times. Most drums are placed first in the temporary storage area, as most radioactive waste requires further treatment before disposal. Treated waste is packed into standard drums, the drums are marked with unique identification and registered, then are placed in a near-surface concrete pit.

How is it stored? - Radiation sources

In case of used sources, the specialists of PURAM package and transport them in special, shielded containers. Before disposal, depleted sources need to be treated in a so-called hot chamber, which is a special and safe closed system with lead shielding and viewing windows. The sources are handled with manipulators (robotic arms) that imitate the movements of a human hand, allowing precise manipulations. After dismantling and compacting, these small sources are placed in corrosion resistant steel canisters, which are welded shut in the hot chamber. The sealed sources are placed in storage wells located in the basement of the technological building or outside.





Upgrades and modernisations

As the facility is more than 40 years old, it is of high importance, that it fulfils current requirements. Following the establishment of our company, we have started implementing several safety enhancement programs.

Thanks to these investments, the facility now has a temporary storage area in the technological building, which provides storage for such materials that cannot be disposed of at the site. The Radiation Protection Monitoring System (SER) also needed update to fulfil modern expectations and authority requirements. Measurements were integrated into a comprehensive system, furthermore, the radiation monitoring gates for personnel radiation detection were also modernised. In 2015 the selection box used for the separation of radioactive waste was refurbished, as well as the complete replacement of the ventilation system in the technological building.

Safety Enhancement Programmes

Some amount of this radioactive waste had been transported to the site before PURAM was founded, and different regulations applied to them before 2000. One of our main tasks is to ensure that these wastes are disposed of with considerations to the safety requirements of present times. These historical waste packages are removed from the storage concrete pits, are reselected, compacted, conditioned, repackaged and redispersed. During this process the waste is also classified and verified, that the contents correspond to their documentation. Therefore, the compacting and repackaging has benefits not only in regard of safety enhancements, but also in better utilization of storage space.

During the execution of the programme the open pits must be physically separated from the environment by installing a dual protection system. The enclosing steel-framed hall provides protection for the waste storage pits, containment and its auxiliary equipment. The movable internal structure, the so-called containment, can cover four pits at one time. This ensures appropriate work conditions for the waste removal process while providing secure separation from the environment. The containment is equipped with a filtering and ventilation system, with pressure below atmospheric pressure, thus air can only be released via the filter system. Entry and waste transport are only possible through the personal and waste transport airlocks. There is a hydraulic lever within the containment that aids the removal and handling of radioactive waste. Waste reprocessing starts in 2021, lasting approximately 10 years.



NATIONAL RADIOACTIVE WASTE REPOSITORY (NRWR)

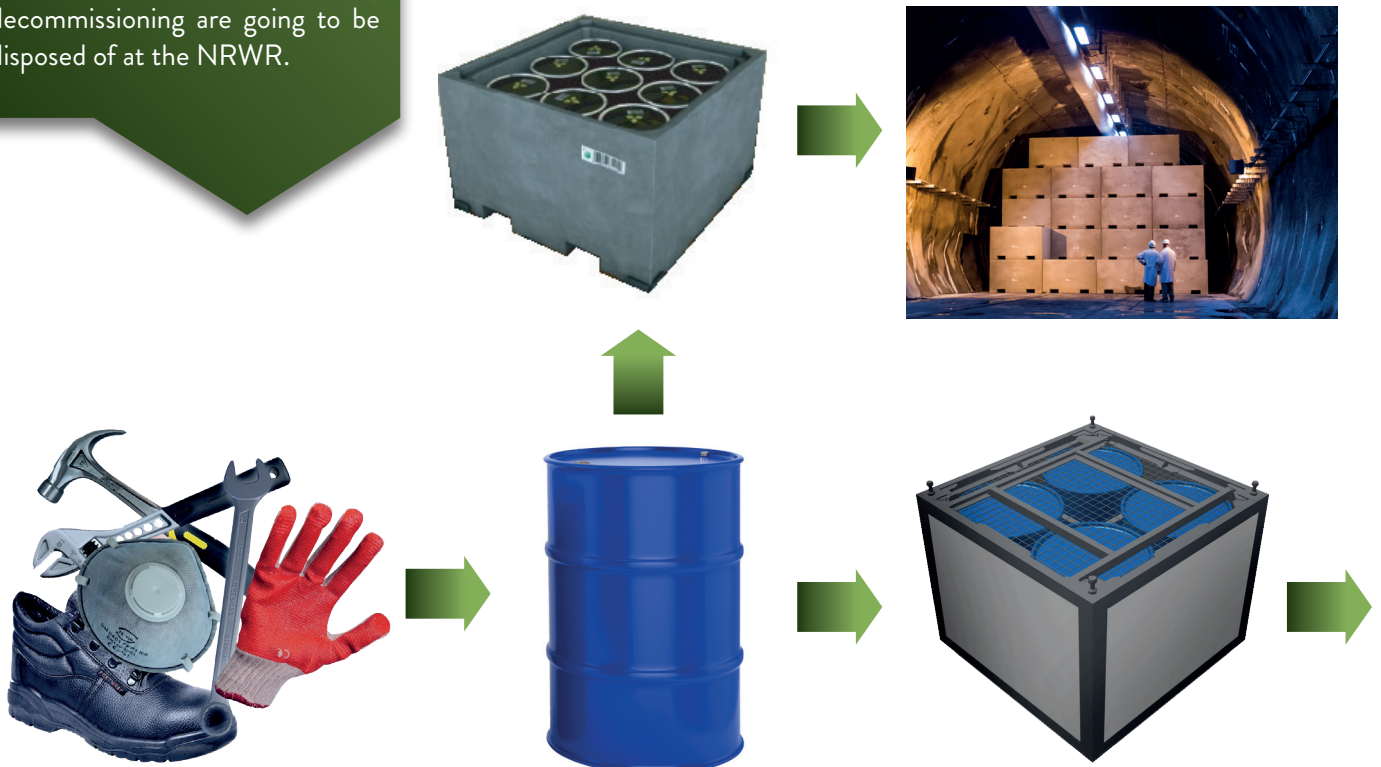
What is stored?

Our task is the final disposal of low and medium-level solid and liquid radioactive waste generated at the nuclear power plant of Hungary. Solid radioactive waste produced during the operation of the NPP is placed into 200 litres steel drums, compacted when possible, while liquid radioactive waste is collected in storage tanks. The final disposal of radioactive waste requires the waste to be in solid form, therefore liquid waste is solidified at the nuclear power plant before transport to the repository. The decommissioning of the nuclear power plant is also going to result in low and medium-level radioactive waste which needs to be processed and solidified before final disposal, similar to operational waste. The waste drums mostly contain used personal protective equipment, protective clothing and tools. At a later time, ion exchange resins and other wastes produced during decommissioning are going to be disposed of at the NRWR.



Where to store?

Underground chambers 200-250 metres below ground level are constructed for the final disposal of the previously described radioactive waste. Two pieces of 1.7 kilometres long, parallel tunnels with a 10% inclination provide access to the chambers, with cross-tunnels at every 250 metres, providing escape routes in case of danger. The almost 6 kilometres long tunnel system can be separated into two parts, the radiation controlled area with the storage chambers and the construction zone, which are divided by a sealed fence. The waste packages are disposed of in the completed chambers, while the repository can be extended at the construction zone.



How to store? – Original concept

According to the original storage concept, waste packages disposed of in the I-K1 storage chamber were created by first packaging (and compacting) the radioactive waste in 200 litres steel drums, then the drums were sealed. After strict checks the experts of PURAM took over the drums and transported them to the NRWR, where 9 drums were placed in reinforced concrete containers at the surface technological building. Space around the drums was filled with inactive cement mixture. After a 7 days resting period these approximately 16 tons waste packages were transported to the first storage chamber, which filled up in 2017: in 537 containers 4 833 drums were placed in their final resting place.

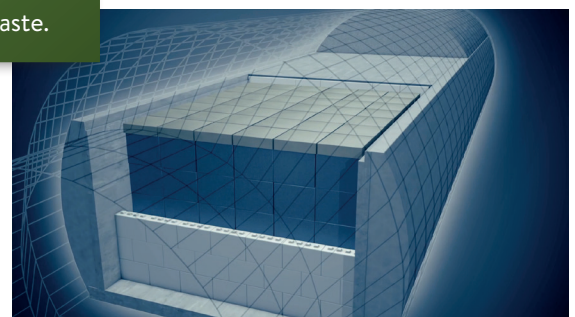
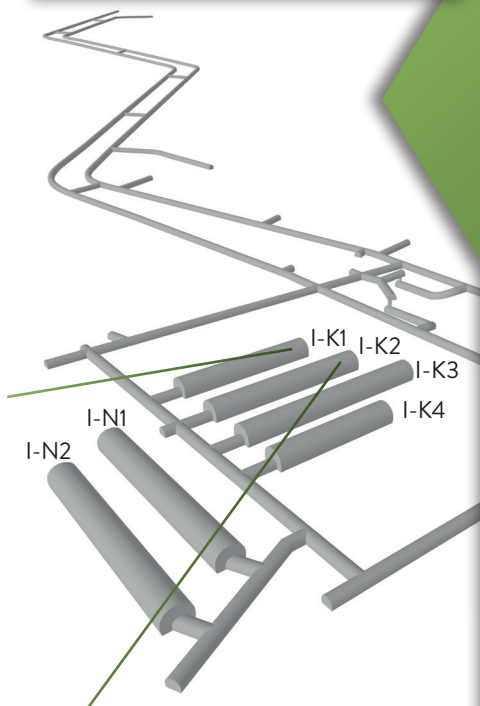


How to store? – New concept

At the second chamber (I-K2) a new, completely different storage method was introduced. According to this new concept the previous containers were replaced by so-called compact waste packages (CWP), which are produced at the nuclear power plant. Four 200 litres steel drums are placed in a thin-walled, reinforced steel container. The space around the drums is filled with cement mixture made from liquid radioactive waste, thus the previously unutilized space around the drums is now also filled with radioactive waste. These prepared packages are then transported by four to the NRWR in Bātaapāti. The new design required the modification of the storage chambers. These steel containers are not disposed of directly in the chamber, but there is a reinforced concrete pit installed in chamber I-K2. For better utilization of the available space steel drums will also be placed at the top of the closed pit. The chamber will be filled in sections. Each, approximately 19 metres long section is closed off with a reinforced concrete wall, and the space around the waste packages is filled with cement, until the whole chamber is full. This new storage concept doubles the space utilized for radioactive waste disposal, resulting in significant savings, while maintaining a high level of safety.

Completion of the facility

While waste packages are disposed of in the already existing chambers, new chambers are continuously constructed, extending the storage area. At present the I-K1 storage chamber is full, the I-K2 storage chamber is ready to accept the new waste packages. The mining of the I-K3 and I-K4 storage chambers was completed, their technological installation is undergoing. The construction of the final, I-N1 and I-N2 chambers will be the main task for the next few years. By the time of their completion the facility will have a capacity of 20 000 cubic metres, thus providing ample storage not only for low and medium-level radioactive waste generated during the operation of the nuclear power plant, but also for all the decommissioning waste.

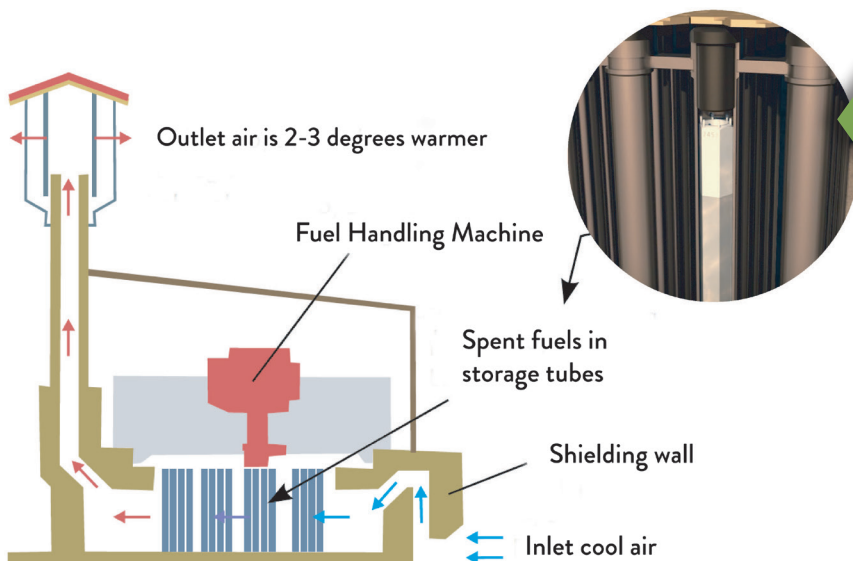


SPENT FUEL INTERIM STORAGE FACILITY (SFISF)



What is stored?

At Paks Nuclear Power Plant four VVER-440 nuclear units are currently in operation. Following a 20 years lifetime extension the units will have had 50 years of operational lifetime. For each unit 42 tons of uranium-dioxide fuel provides energy production, of which approximately 400 spent fuels assemblies originate. Each hexagonal fuel assembly is 3.2 metres long and weighs 220 kilogrammes.



What options are available for spent nuclear fuel management?

Presently there are 3 options to safely manage irradiated fuel produced by nuclear power plants. The first option is an open fuel-cycle, when spent fuel assemblies are disposed of without any reprocessing in a deep geological disposal facility, where engineering barriers provide protection. The second option is a closed fuel-cycle. In this process uranium and plutonium are retained from the reprocessed spent fuel assemblies. The third option is the “wait-and-see” approach, when fuel assemblies are stored long term in interim storage facilities, while a substantiated decision is reached in regard of their reprocessing or final disposal. It must be emphasized that interim store is required in all three cases, only the length of interim storage will depend on the selected option.





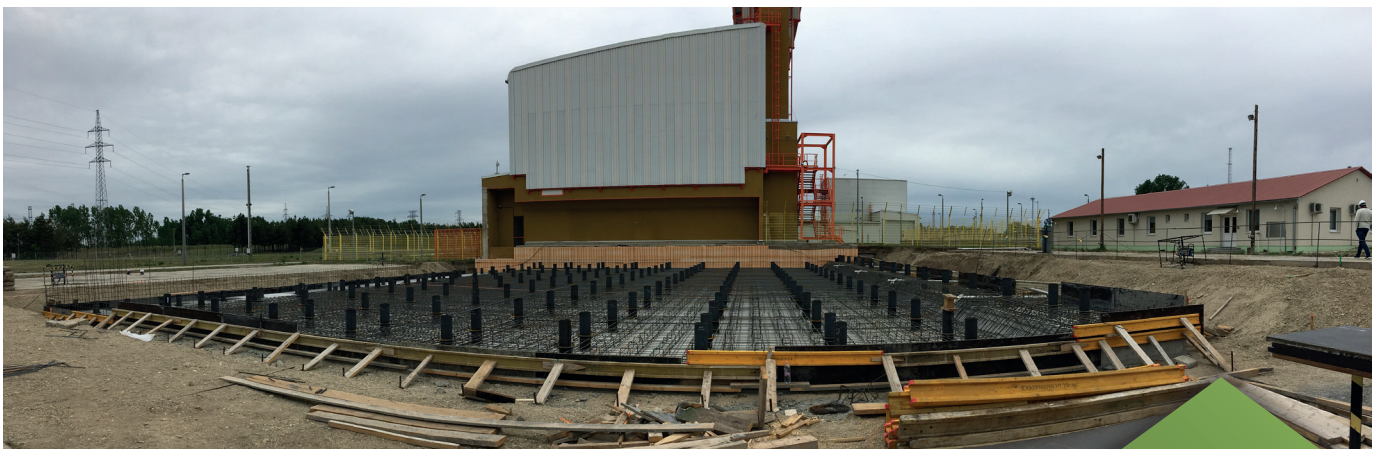
Where is it stored?

After the regime change in Hungary, the return of spent fuel assemblies to the Russian Federation became uncertain. The solution was to construct a surface, modular design, dry storage facility adjacent to the operating nuclear power plant. This facility receives spent fuel assemblies since 1997, PURAM taking over its operation after its inauguration in 1998. The interim storage facility has been continuously expanded with new modules, as the increasing volume of spent fuel requires. The current licenses are valid for 50 years of interim storage, by the end of this period - when the stored fuel assemblies have cooled down and their activity has decreased significantly - a solution for the final disposal shall be selected.



How is it stored?

When the spent fuel elements are depleted and no longer suitable for energy production, they are placed in the so-called spent fuel pool, beside the reactor, for about 3-5 years. Here the spent fuel assemblies continually lose residual heat, finally cooling down enough for transport. The assemblies are transported to the Spent Fuel Interim Storage Facility in a water-filled container via rail. At the interim storage facility fuel assemblies are removed from the transport container with the fuel handling machine, dried completely, then are placed - one by one - into hermetical steel tubes. The vertical steel tubes are clustered in storage chambers, where the almost 2 metres thick reinforced concrete walls provide sufficient shielding against radiation. The facility has a dry storage design, where remnant heat is removed by natural ventilation. Thus electric or other technical malfunctions cannot adversely affect the cooling of the fuel assemblies. The cooling air travels around the steel tubes, therefore it does not get into direct contact with the assemblies themselves. The steel tubes contain neutral nitrogen, which is kept at constant pressure.



Complete construction of the repository:

Of the complete structure (8 modules = 33 chambers = 17 743 storage tubes) up until now 6 modules - 24 chambers have been completed. In this space 11 416 spent fuel assemblies can be stored. Starting from the 17th chamber the number of steel storage tubes in the chambers has been increased from 450 to 527. Further capacity increase is planned from the 25th chamber, up to 703 tubes. This shall result in savings both in time and space as well as costs. Storage capacities must be continuously increased along with the operation of the nuclear power plant, to provide sufficient interim storage for the depleted fuel assemblies in accordance with the transport plan. Building a module of such a complex system takes up to three years, requiring the installation of multiple safety barriers, special expertise, meticulous planning, preparation and execution.

WEST MECSEK RESEARCH PROGRAMME

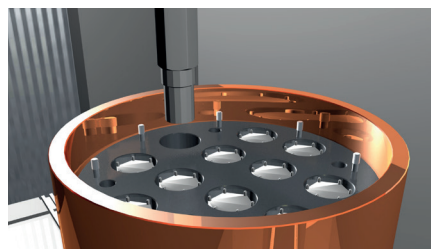
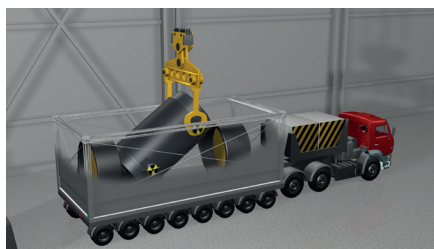
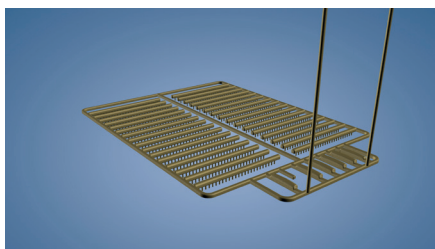
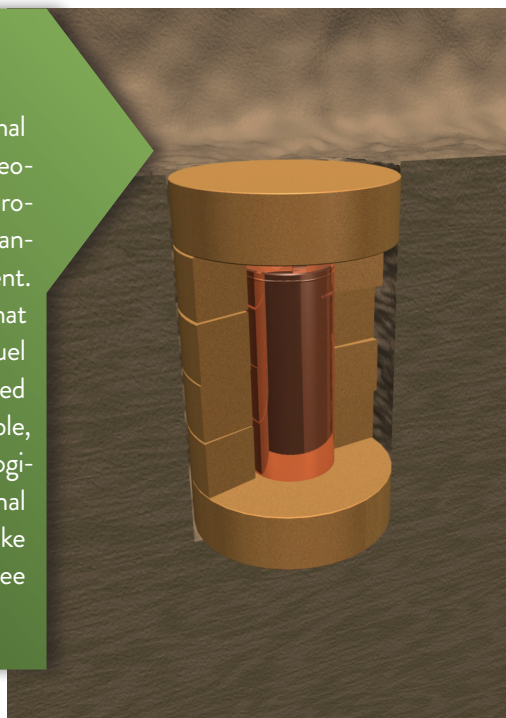
What are the tasks ahead of us?

Radioactive waste is categorized into low-, medium- and high-level radioactive waste, depending on the radioactive isotopes present in them; while the types of the isotopes determine whether they are short- or long-lived waste. Spent nuclear fuel, as well as their remains after reprocessing are high level radioactive wastes. Hungary has already solved the issue of disposing short-lived and low and intermediate level radioactive waste. Temporary storage solution exists for long-lived and high activity waste as well as spent nuclear fuel (together: high activity waste), the solution for their final disposal is still in the research phase.



Why research?

The safe final disposal of high activity waste – in accordance with international consensus – can only be achieved in a deep geological repository. The deep geological repository is a facility built several hundred meters below ground, well protected from surface influences and processes, where long-term safety is guaranteed not only by man-made solutions, but by the stable geological environment. International organisations involved in radioactive waste management agree that deep geological repositories are suitable for disposing of both spent nuclear fuel and the remnants of fuel reprocessing. According to the National Policy ratified by the Parliament in April 2015 high activity waste shall be disposed of in a stable, deep geological repository. The process of site research, selection and geological substantiation, as well as the development of technical solutions for the final disposal of high activity waste packages – as international examples show - take several decades. Evaluations must also prove that such a repository can guarantee extreme long term (100 000 years) safety.



Where to research?

Hungary commenced a research program for site investigation at the end of 1993, at the shafts of a previous uranium mine in the Mecsek hills. Research focused on Boda Claystone Formation. Analyses did not identify such adverse effects which would render the site unsuitable for the intended purpose. In 2000 a research considering the whole territory of Hungary also deemed the Boda Claystone Formation as the most suitable for a deep geological repository.

Therefore, PURAM set up a multi-phase, surface and underground geological research programme to identify the most suitable site location for the repository and an underground laboratory in the West Mecsek.



Results of research

PURAM started geological research in the area in 2004, the first phase ended in 2010, establishing deep boreholes, geophysical measurements, multiple evaluations, and a hydrogeological and geodynamic monitoring system, which has been in operation since.

The next research phase lasted from 2014 to 2017. During this time three boreholes were drilled to 474, 913 and 1030 metres depth, which confirmed the advantageous characteristics of the Boda Claystone Formation. Further field activities included the establishment of a 700 metres long, 2–6 metres deep research trench. This trench did not uncover any signs of geological movement, that would have occurred in the last couple 100 000 years. Geological, hydrogeological and geomorphologic mappings were carried out, two, over 30 kilometres long seismic sections were measured, and the hydrogeological and geodynamic monitoring system continued operation. For over a year, radioisotopes were researched in laboratory to determine the transport characteristics of the claystone. The results of the geological research program were submitted in a report to the Regulator in 2017.

In accordance with new legislative requirements in 2018 PURAM compiled a framework site research programme for the Boda Claystone Formation, which determines our tasks until 2032. The framework programme was approved by the HAEA in 2019. Currently this programme serves as the basis for planning the next research phase and inviting tenders. The next couple of years deeper research drills and seismic research shall take place in the West Mecsek.

COMMUNICATION

In accordance with Act CXVI. of 1996 (Atomic Energy Act) the public must be regularly informed on all activities and decisions regarding radioactive waste management and disposal. This does not only mean providing information, but also to have real dialogue with those citizens, who live in those areas which are most affected by our activities.

It is of utmost importance to gain widespread social acceptance and support for our activities. Domestic and international experience shows that in

order to solve the question of radioactive waste disposal, the support of the public and the affected communities toward the activities of our company is paramount. This requires continuous and targeted efforts.

The primary objective of our company's communication activities is to maintain and strengthen the trust and receptivity of those communities, that are most affected by our programs. This supports the long term safe operation of our existing and planned facilities. We focus on building and maintaining strong relation-

ships, as well as establishing dialogue with the local communities and the controlling and information associations of the surrounding municipalities.

By utilizing the options made available by the Atomic Energy Act, our company not only uses its own communication tools, but also provides information via the control and information associations. The Associations for our three sites and the research area are as follows:

Associations	Affected facilities, area	Number of settlements
Association for Information and Social Control (TEIT)	Spent Fuel Interim Storage Facility	16
Social Control and Information Association (TETT)	National Radioactive Waste Repository	8
Isotope Information and Control Association (ITET)	Radioactive Waste Treatment and Disposal Facility	10
West-Mecsek Information, Control and Rural Development Municipal Association (NYMTIT)	West-Mecsek research area	11

Radioactive waste management is a task that spans generations, therefore we pay great attention to address all ages. To be successful, we need to utilize a wide range of communication tools and avenues:

- PURAM publishes a bimonthly electronic newsletter with reports on its recent activities. Furthermore, PURAM provides professional materials for the periodicals of the associations to inform the citizens of the municipalities of the programmes that have relevance for them.
- Our website provides up-to-date information, our newsfeed contains the most recent events. We also publish short films on our activities on our Youtube channel.
- Several times each year we evaluate our recent activities at a press

conference, where journalists have an opportunity to learn of our work and ask questions.



- We regularly provide opportunity for the members of the press to visit our sites, thus having first-hand information to relay to the public. Our publications provide a clear overview of our facilities and our activities, we also release leprellos on the most interesting topics for our curious readers.

- In cooperation with the associations we also organize competitions and children's quizzes in physics and chemistry to get feedback on their knowledge regarding radioactive waste management and to further educate the participants.

- Youth is a high priority target group, so we regularly visit schools to educate the children on our activities during physics lessons.



- Our most important tool is direct communication, our Visitors' Centres in Bataapáti and Paks serve this purpose. At Bataapáti a surface and an underground exhibition room is set up for education on our activities, where modern displays and a cross-tunnel in the granite awaits our visitors. The tableaus of the Paks Visitors' Centre present the activities of PURAM with a diorama board to enhance the variety of experience. Until present days over 130 000 visitors visited our exhibition centres and sites.

- As a testament to our open communication, the association members also operate a Controlling Committee, for which PURAM provides trainings. After passing the necessary exams with training and support from our Company, the Committee members - who are all citizens of the surrounding municipalities -, may observe the activities carried out at our sites, perform measurements, and report on their findings.

- In cooperation with our Company, the Associations hold a professional



day every year, where esteemed guests and lecturers present to the local citizens on topics related to radioactive waste management.

- Public hearings are held whenever we plan to expand our facilities, or during licencing procedures. These public hearings are organized by the Hungarian Atomic Energy Authority, where citizens may ask questions from the experts of relevant fields.

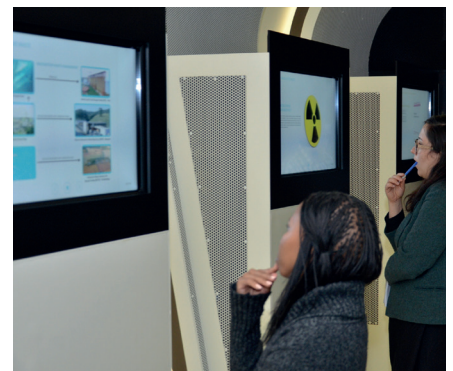
- The mayors of the surrounding municipalities must be kept up-to-date with our current activities, therefore we are always available to discuss any question. Furthermore, we hold quarterly forums for the association members, where we summarize our activities regarding the previous period, thus reinforcing our openness and providing

information to our target audience.

- Open days provide opportunity to visit our facilities, discovering such areas and technologies, which are otherwise restricted from visitors. These events are accompanied by our Kids' Day event.

- Considerate organisations also partake in social activism, at our NRWR Visitors' Centre an annual blood drive is organised.

- Biennial representative surveys (performed in the four affected areas, surveying 4 000 persons) show, that our activities are known by 77 %, with acceptance of 74 %. Such results are exceptional, even in international comparison.





Should you wish to visit our showroom at our Paks facility, or look around our Visitors' Centre in Bataapáti, information on visits can be found at our website – www.rhk.hu – under the 'Visit Us' tab, or contact our Communication Department by e-mail: latogatas@rhk.hu, or by phone on +36-75/519-567



Publisher: Dr. Ferenc Kereki
Editor: Gabriella Honti
Graphics: SBH Solutions Ltd.
Print: SERENITY SOLUTION
Ltd.

2022