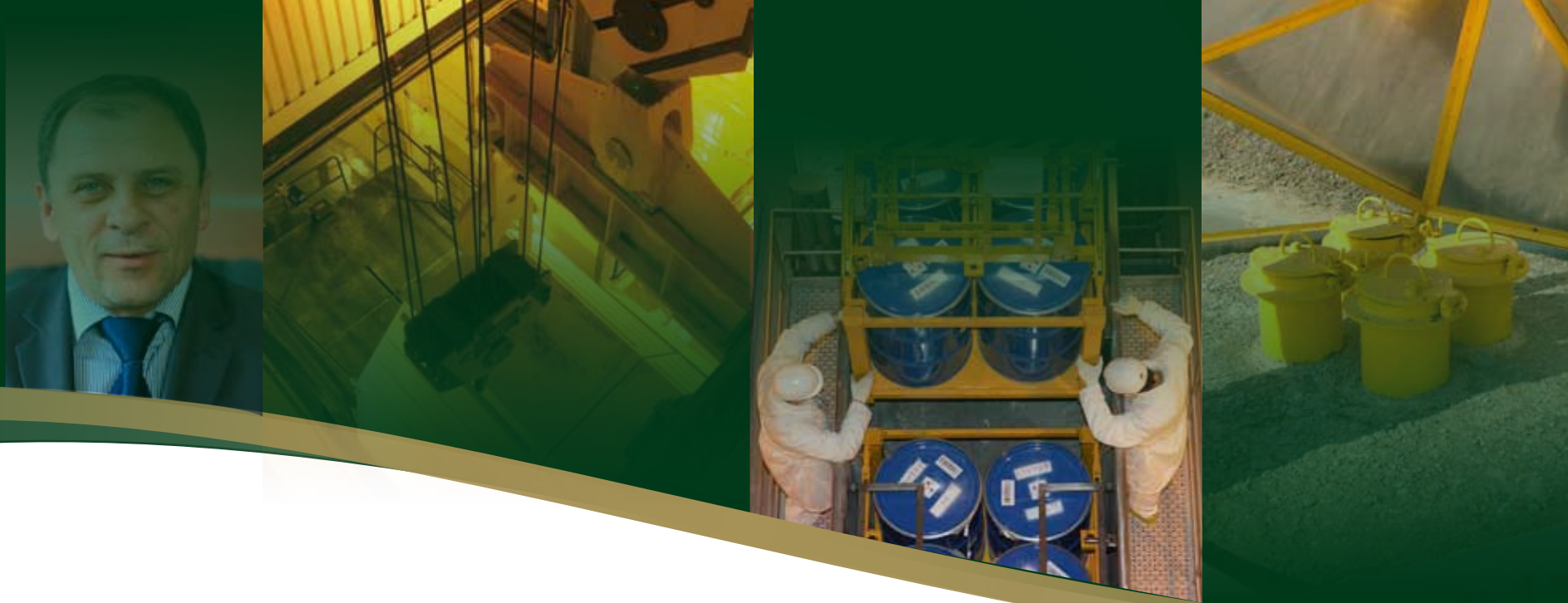




Public Limited
Company
for Radioactive
Waste
Management

Dear Reader,



Similarly to the industrially developed countries of the world Hungary also uses nuclear technology for agricultural, industrial, medical, research and power generation purposes in order to improve the human health and living conditions but such activities are accompanied by generation of different kind of radioactive wastes and spent nuclear fuel. Our common interest is to manage, store and dispose of wastes generated during such activities (including also those, which are generated during the decommissioning of nuclear facilities) for long term with responsibility and in a guaranteed secured way. For performance of these tasks the state owned non-profit Public Agency for Radioactive Waste Management was established in 1998. Due to the changes of the law the Public Agency has transformed into Public Limited Company for Radioactive Waste Management (PURAM).

Also due to the changes of the law the scope of the basic tasks of our company has changed and has been extended slightly since the summer of 2011, including some new rules that appeared as a result of the modification of the

Act No. CXVI of 1996 as a consequence of the changes in the international rules and domestic practical experience. The Directive 2011/70/EURATOM about establishment of a community framework for responsible and safe management of spent fuel and radioactive wastes, which was accepted by the European Council on 19 July 2011, may specify new tasks for our company. According to the above-mentioned law the security staff of the company provides guarding-protection and security services on our sites.

As a result of the work of our company, Hungary has gained worldwide reputation for the management, storage and final disposal of radioactive wastes. We are involved in the activities of all the international organisations, from where we can get acquainted with the experience of the countries with more advanced programmes for waste disposal or we can exchange our experience in international cooperation. In this field our country is considered as one of the best among similar size countries.

Our company performs the management, storage and final disposal of radio-

active wastes and spent fuel on several separate sites.

In the Radioactive Waste Treatment and Disposal Facility (RWTDF) in Püspökszilágy mainly low- and intermediate level wastes from non-nuclear facilities are stored and disposed finally. The site is operated continuously, while the safety improvement of the facility and related preparation activities are in progress.

Spent nuclear fuel generated during the operation of the nuclear power plant is stored safely in the Interim Spent Fuel Storage (ISFS) Facility operated and continuously extended on the site in Paks. No remarkable incidents have happened while several thousands of spent fuel assemblies have been stored during more than one and half decade operation of ISFS facility.

Extension of ISFS facility follows the demands of the Paks Nuclear Power Plant. Based on the experience of the previous period the construction work can be considered as a large but routine task. The extension work and continuous upgrading of the technology are implemented simultaneously with the operation.

A separate facility in the region of Bataapáti serves for final disposal of low- and medium level wastes from nuclear facilities. The researches related to the establishment of the National Radioactive Waste Repository (NRWR) started in the middle of the 1990s. By now the surface facilities of NRWR have already been completed. Low- and intermediate level radioactive wastes from nuclear facilities are received there and prepared for underground storage. The construction of the first chambers of the underground system were finished and preparation of licencing documents required to further construction are in progress. Further extension and operation of the repository follows the demands of the nuclear power plant, including its lifetime extension as well. According to our plans the facility in Bataapáti will be closed in 2084. Among all activities of our company this is an activity where the preparation, investment and operational tasks are connected in the most evident way.

For disposal of high-level wastes and spent fuel a repository has to be established in deep geological formation. Suitable rock mass for establishment of

such a facility is available in the region of Western-Mecsek. Local researches for appointing the site of the facility will be performed by our company in the near future. The big challenge of the near future for us is to choose the site of an underground research laboratory, where the rock environment will be analysed on the site or under similar conditions (in situ). According to our expectations this underground research base will constitute the part of the repository that will serve for the final disposal of high-level and long-life radioactive wastes. We are planning that the repository should be ready for operation in 2064.

PURAM stands for full openness and close cooperation with concerned and interested people. The main objective of our communication is to obtain, keep and increase the confidence and readiness of the inhabitants in order to make them familiar with the operating and planned facilities and make them sure of their safety.

Our company considers primary importance to establish and maintain relationship and dialogues with the local inhabit-

ants, local government associations and civil organisations. It is a big achievement that in each regions where our company is present there is a local government information association working in partnership with our company.

The current presentation material replaces our previous similar publications. We hope that we will improve the readers' opinion about the matter of radioactive waste management as follows: it is in the hand of reliable, pro-active and safety-conscious specialists supported by a stable legal, official and financial background and suitable guarantees. I wish good health to all actors in accomplishment of the tasks being ahead of us. We would like to further enjoy the confidence and support of all those without whom we cannot achieve our objectives. At the same time we ask for patience of those who tend to accept with doubts all activities relating to the radioactive waste management. We do hope that the information provided here will facilitate to bring more and more people to the conclusion that the results of our research activities are correct and the safety operation of the current and planned facilities is fully guaranteed.

Dr Ferenc Kereki
Managing Director

Basic information about the company

The name in Hungarian:

Radioaktív Hulladékokat Kezelő
Közhasznú Nonprofit Korlátolt
Felelősségű Társaság

The Hungarian acronym:

RHK Kft.

The name in English:

Public Limited Company for Radioactive
Waste Management

The English acronym:

PURAM

The Founder:

On behalf of the Hungarian state the
Hungarian Atomic Energy Authority
(hereafter referred to as: HAEA or nu-
clear regulatory body)

Beginning of the activities:

1 July 1998

The length of the operation:

Indefinite

Form of the company:

Limited Company

Legal status:

Independent legal entity acting as an or-
ganisation of public interest

Form of financing:

Central Nuclear Financial Fund (CNFF,
Fund)

Company's headquarters:

Budaörs, Puskás T. Str. 11., Hungary

Branch sites:

a; PURAM office and Interim Spent
Fuel Storage Facility (ISFS) in Paks
b; Radioactive Waste Treatment and
Disposal Facility in Püspökszilág
(RWTDF)

c; National Radioactive Waste Reposi-
tory (NRWR) in Bataapáti

Organisation of the company

Managing Director:

appointed by the Founder for an indefi-
nite period

Board of Supervision:

despite the provisions of the Act on more
economical operation of economic enti-
ties in public ownership the board con-

sists of five natural persons. One mem-
ber of the Board of Supervision can be
appointed by the licensee that pays the
largest amount to CNFA and one by the
economic entity exercising the direct ma-
jority owner's rights over the licensee.

Auditor:

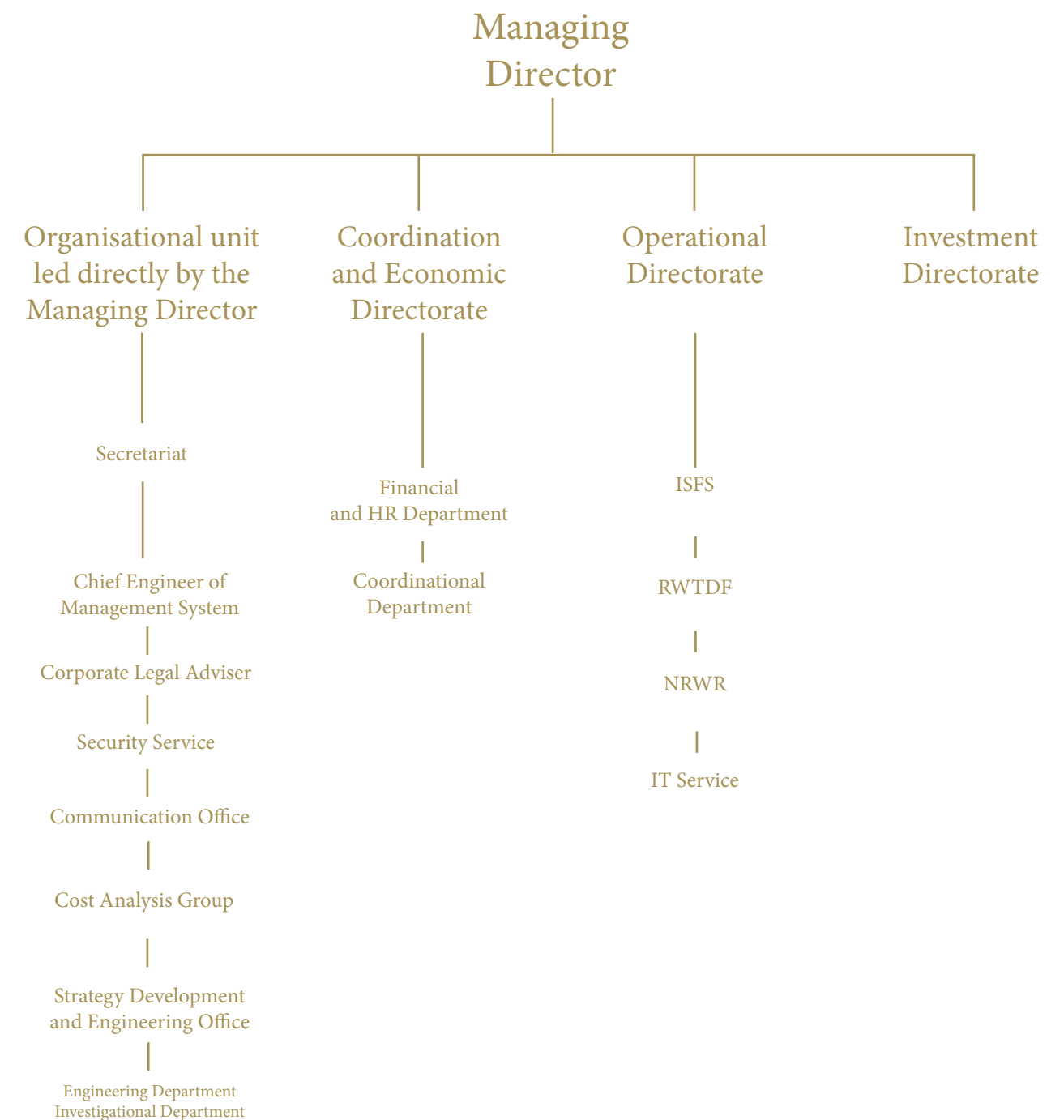
a certified auditor appointed by the
Founder

As its basic activities PURAM performs
the tasks specified by Article 40 of the Act
No. CXVI of 1996 on Atomic Energy.

Our company prepares the national
programme of the management of ra-
dioactive wastes and spent fuel, performs
directly the tasks relating to the final dis-
posal of radioactive wastes, interim stor-
age of spent fuel, closing of the nuclear
fuel cycle, and decommissioning of the
nuclear facilities.

As of May 2013 the total number of the
company staff is 200. 13 of them are
working at the headquarters in Budaörs,
97 in Paks, 47 in RWTDF in Püspöksz-
ilág and 43 on the site in Bataapáti.

Organisational Chart of PURAM



Costs and financing

The payments of waste producers into the Central Nuclear Financial Fund (CNFF) ensure financing of the basic tasks of the company.

The Hungarian Atomic Energy Authority (HAEA) disposes of the Fund. The organisational unit, which is responsible for management of the Fund, is separated from the other units performing regulatory activities.

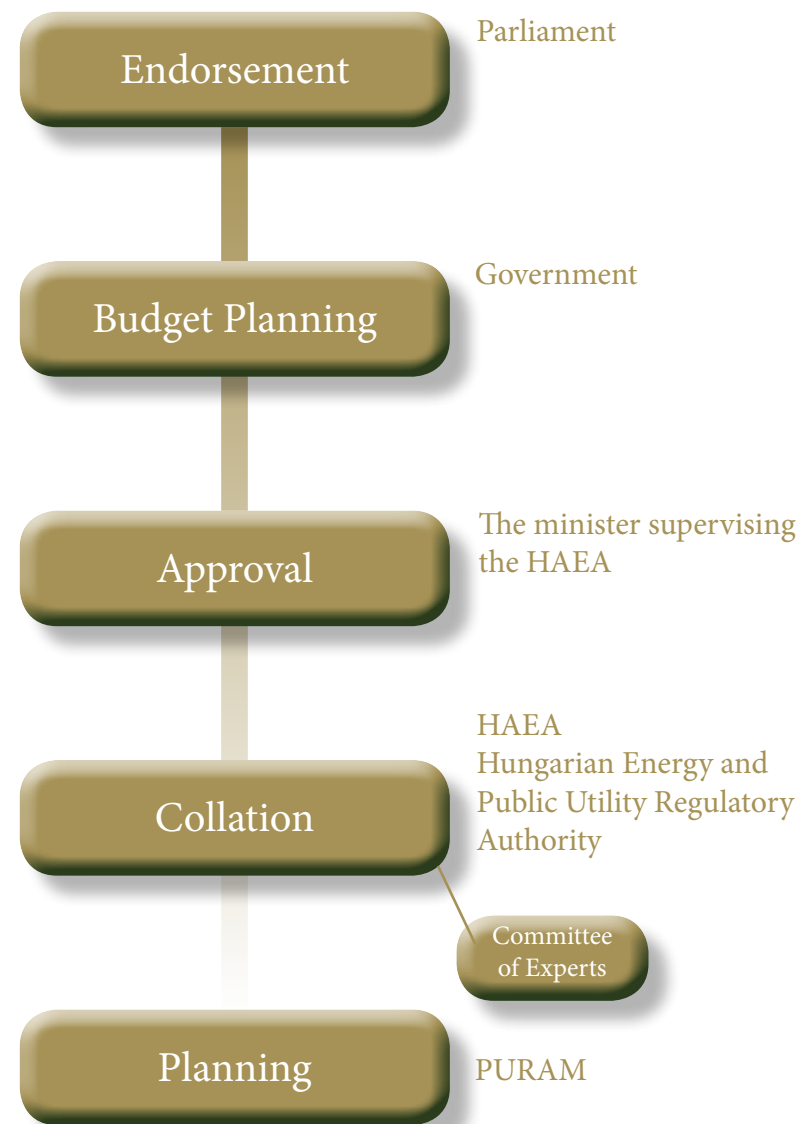
The member of the Government, who supervises HAEA together with the interested ministers, has regulated the rules and procedure of the operation of the Fund in a decree in accordance with the authorization given by the Act on Atomic Energy. The minister supervising HAEA as the disposer of the Fund is responsible for the operation of the Fund and performance of the related tasks via HAEA.

Licensees of nuclear establishments are obliged to make payments into the Central Nuclear Financial Fund in order to cover the costs of final disposal of radioactive wastes, interim storage of spent fuel, closing of the nuclear fuel cycle and decommissioning of nuclear establishments. The amount of payments has to be determined so that they cover all the costs arising in connection with the final disposal of radioactive wastes generated during the whole lifetime and decommissioning

of a nuclear establishment, with the interim storage of spent fuel, closing of the nuclear fuel cycle and decommissioning of nuclear establishments.

Our company's responsibility is to make a proposal on the sufficient amount of payments accordingly. The proposal is approved by the minister supervising HAEA, then it is included in the budget act to be submitted to the Parliament for approval. The schema of the decision-making process is illustrated above.

The Committee of Experts of CNFF, which is established by the minister supervising HAEA and chaired by the Director General of HAEA, is also involved in the decision making process. The Committee of Experts makes evaluation and develops its preliminary position to the minister's decision in the strategically determining areas, such as proposals supporting the technical decision on closing of the nuclear fuel cycle, the national programme of radioactive wastes and spent fuel management, the medium- and long-term plans of the activities to be financed by the Fund, the cost estimations in connection with the activity of the Fund, the proposals prepared on the payment responsibilities, the draft annual work programmes, proposals, drafts and reports prepared by PURAM in connection with the operation and use of the Fund.



Quality policy

Our company takes utmost care to accomplish its tasks in full compliance with the legal and normative requirements as well as in accordance with the society's expectations, in good quality. That's why an integrated management system has been introduced, which has been officially certified by the Hungarian Standards Institution. Our quality policy declares that the disposal of radioactive wastes is a matter of 'national concern'. Accordingly, our company takes responsibility to ensure healthy environment for the present and future generations and to guarantee its work performed.

Our aim is to perform all our duties in the spirit of openness, credibility and reliability. The management of the company has committed themselves to consequent accomplishment of the tasks prescribed by the law and expect the same not only from own employees but also from the subcontractors.

The quality policy of our company covers all related activities, including the professional training of the employees, evaluation of the satisfaction of waste suppliers, continuous control of the subcontractors, information giving to the stakeholders and the enhancement of the social dialogue.

The tasks of our company

Planning, reporting

Preparing proposals for technical supporting activity of decision-making for closing of the nuclear fuel cycle and its review in every three years;

Preparing the draft national programme, which summarizes also the national policy relating to the management of radioactive wastes and spent fuel (including the possibilities of closing of the nuclear fuel cycle) and the decommissioning strategy of nuclear establishments and its review in every three years in order to reassess the options included in the programme;

Preparing the medium- and long-term plans of the activities to be financed by the Fund for the option selected on the

basis of the national programme and its annual review, including also the calculations and cost estimations required for determination of the payment obligations into the Fund;

Preparing the annual work programme of the activities to be financed by the Fund;

Preparing professional and financial reports on the activities financed by the Fund;

Performing all other tasks related to the basic activities of the company that are required by the responsible management of the Fund.



In 2010 our company prepared its first document relating to the technical supporting activities of the national programme titled as 'Support to the new programme for management and disposal of radioactive wastes and spent fuel in Hungary'.

Establishment of the first national programme, which complies with the new directive 2011/70/EURATOM, will be a task in the near future (2014-2015).

Our company regularly prepares draft proposals on the annual and medium- and long-term plans. The medium- and long-term plans include the calculations and cost estimations required to determine the payment obligations into the Fund. The mechanism of conciliation has already been described before. The agreed and specified plans are to be approved and also suggested to be accepted

in the annual budget act by the minister supervising the Hungarian Atomic Energy Authority. The annual tasks can be performed only after they have been approved by the Parliament.

The planning tasks include the preparation of constructions, including the preparation tasks of new establishments, modification and safety improvement or optimization of the existing systems. The preparation work starts with development of a project proposal and focuses on development of the technical plans. A preparation process usually lasts until successful completion of an establishment licensing procedure. The above mentioned planning and reporting activities are performed by the Strategy Development and Engineering Office and the Coordination and Economic Directorate.

Decommissioning and dismantling of nuclear establishments can be considered definitely as a planning task at the moment, since the actual decommissioning tasks (conservation and guarding after final shutdown, dismantling of nuclear establishments, reconstruction of their sites) will become actual only in the far future. Now the decommissioning tasks are limited to the preparation of the decommissioning strategy of nuclear establishments, preparation of decommissioning, preparation of preliminary and final decommissioning plans. Such activities are performed by the Strategy Development and Engineering Office and the Coordination and Economic Directorate, including the periodic review of the preliminary decommissioning plans with cost estimations and their inclusion in the strategic documents of the company.

Operation

Operation, guarding and closing of the storage facilities for final disposal of low- and intermediate level radioactive wastes;

Operation and guarding of spent fuel interim storage facilities;

Operation, guarding and closing of storage facilities for final disposal of high level radioactive wastes;

Delivery of low-, intermediate- and high level radioactive wastes to the storage facilities.



Radioactive Waste Treatment and Disposal Facility (RWTDF), Püspökszilágy

The storage facility operated on the site between Püspökszilágy and Kiszénmedi has been established for disposal of low- and intermediate level radioactive wastes and serves mainly for final disposal of wastes from non-nuclear facilities. RWTDF is operated by the own staff of our company, including the delivery of radioactive wastes from all over the country and guarding of the facility. These tasks are performed by the staff of the Operational Directorate.

RWTDF was built in the middle of the 1970s. After the finished reconstruction of the facility, the repackage of the earlier stored wastes suit to the recent requirements is in process, and the first phase with the biggest volume is planned to be completed by 2025. This activity is performed by our company for long-term improvement of safety, as a result of which RWTDF can be operated for further decades until 2067 as planned. The staff of the Investment Directorate, Strategy Development and Engineering Office is also involved in the tasks of the reconstruction and safety improvement programme.

National Radioactive Waste Repository (NRWR), Bataapáti

NRWR is operated in the region of Bataapáti as a facility for final disposal of low- and intermediate level wastes from nuclear power plant. Having the required permits our company accepts the wastes and implements the underground disposal of these radioactive wastes. Our company is responsible for the operation of the facility for decades, including acceptance and delivery of wastes, then for underground final disposal and continuous guarding of the facility. It is planned to be closed in 2084. These activities are performed by the staff of the Operational Directorate, while the extensional and constructional work of the facility is prepared and performed by the staff of the Strategy Development and Engineering Office and Investment Directorate.

Interim Spent Fuel Storage (ISFS) Facility, Paks

The first modules of ISFS facility were established in the middle of the 1990s, when the delivery of spent nuclear fuel back to Russia as the former practice became impossible. Now the first step of the closing of the nuclear fuel cycle is implemented in this facility by interim storage of spent fuel for several decades.

The routine operational and maintenance tasks of ISFS, including also the delivery of spent fuel assemblies from the plant to the storage facility, are performed by the staff of the Paks Nuclear Power Plant in the frame of a contract. Other contracts, which are needed for the operation of ISFS, such as guarding-

protection, cleaning, radiation protection measurements, building condition monitoring and maintenances, are managed by the Operational Directorate. The Operational Directorate performs also the monitoring of nuclear materials placed in the storage facility in compliance with the provisions of the Safeguards Agreement. Our company exercises also the asset management rights.

According to the plans the operation of ISFS will terminate when the vault modules of the facility will be emptied (between 2064 and 2072). Our company is responsible for the operation until that time.

The tasks
of our
company

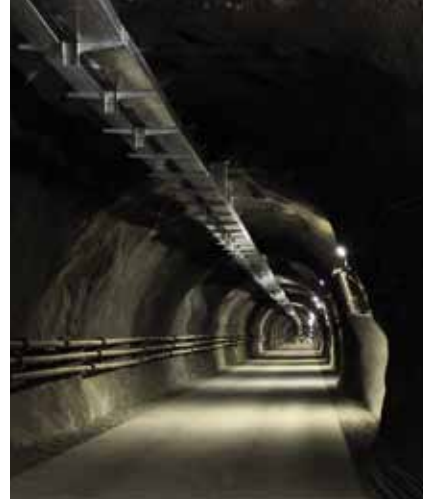
The tasks of our company

Construction

Preparation and construction of storage facilities for the final disposal of low- and intermediate level radioactive wastes;

Construction (extension) of interim storage facilities for spent fuel;

Preparation and construction of a repository for high-level radioactive wastes (including also the construction of an underground research laboratory).



Construction of NRWR

NRWR is being under construction in the region of Bataapati and serves for the final disposal of low- and intermediate level radioactive wastes from nuclear power plant. The construction of all surface facilities was completed. The first two underground storage chambers have been completed in 2011. The infrastructural investments and the relevant licensing procedure required to the operation of the first chambers were finished. The first two chambers were put into operation at the end of 2012.

Construction of additional chambers, including the preparation, licensing and implementation steps, will follow the demands of the nuclear power plant and any possible technical developments to be introduced. In this way NRWR will provide sufficient place for the final disposal of low- and intermediate level radioactive wastes to be generated



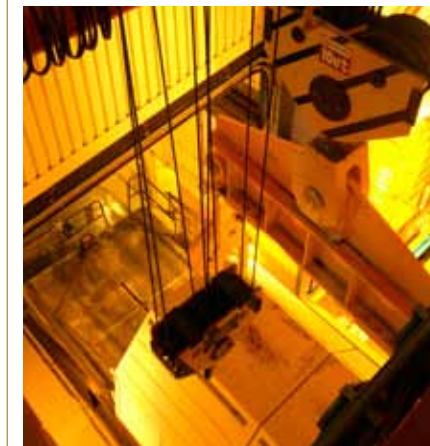
during the extended lifetime of the plant and later decommissioning. According to our recent information the investment tasks of NRWR will last until 2041. The classical investment tasks (preparation of construction plans, obtaining the operational permit) are performed by the Investment Directorate and the Coordination and Economic Directorate while the preparation tasks together with developments will be completed by the Strategy Development and Engineering Office.



Extension of ISFS facility

Although ISFS facility has been extended periodically since the first modules were completed, the extension work follows the demands of the NPP, including large construction work and mechanical assembling activities. Since the annual investment costs amount to several million forints, the management and control of the investment work requires significant efforts. According to our recent experience it can be stated that these tasks are easily managed by our company.

According to our plans the extension work of the storage facility will be completed in 2035 when the construction of the vault module No. 36 will have been finished. Then the established storage capacity will be sufficient also for the extended lifetime of the nuclear power plant. The Investment Directorate is responsible for the extension work of ISFS facility, while the work is performed by the Strategy Development and Engineering Office. According to our plans the vault modules of ISFS will be emptied between 2064 and 2072, followed by decommissioning and dismantling of the facility.



Construction of a facility for final disposal of high-level radioactive wastes

For disposal of high-level radioactive wastes the construction work of a facility in solid deep geological formation has to be prepared. According to the common international opinion such a facility can be used for the direct disposal of spent fuel or its processing wastes. Together with such type of wastes it is reasonable to place here also high-level and/or long-life radioactive wastes.

The next and even the most significant investment of our company will be the construction of the disposal facility for high-level wastes. Due to the limited availability of financial resources the related activities have been suspended for years. The programme is expected to be restarted around 2014. The project is prepared by the Strategy Development and Engineering Office. The Investment Directorate and the Coordination and Economic Directorate are responsible for the construction of the facility.

International Cooperation

The interests exhibited towards the treatment and final disposal of radioactive wastes far exceed the national frames. Some countries follow with attention each other's programmes, and even they cooperate in solving some tasks in many areas. When pursuing its own programmes Hungary cannot act alone and be isolated from the world. Both successful and abortive programmes might provide useful lessons which needs to be learnt.

Participation in the working committees and projects of international organisations, such as the International Atomic Energy Agency, the European Union and OECD Nuclear Energy Agency, helps our specialists with extremely useful experience in their work. The regulations, guidelines and recommendations issued by these organisations give an important guideline for the Hungarian practice.

Additionally, several bilateral relationships are maintained by our company, which result in more or less regular tasks. Our company regularly attends professional conferences, symposiums and working meetings.

Regular participation at the above-mentioned international cooperation enables our specialists to be kept informed of the latest developments and trends of radioactive waste management and the experiences of other countries, and they can share information about the Hungarian practice as well.

International conferences such as DISPONET (Network of Training and Demonstration of Waste Disposal Technologies in International Level Waste Disposal Network) and IGD-TP (Implementing Geological Disposal of Radioactive Waste Technology Platform) were hosted by PURAM.



Public Relations

In accordance with our legal commitments it is essential to provide regular information about all activities and taken measures related to the management and disposal of radioactive wastes. This means not only publishing information but establishing an active dialogue with the public living on the areas designated for the interim storage and final disposal of wastes. It is especially important to organise wide social consensus and public support for the implementation of safe disposal of wastes.

To reach our goal it is essential to have the public support, which requires continuous and targeted activities. To achieve this our company considers extremely important to build and maintain rela-

tionships and to organise dialogues with the local inhabitants, local government associations and civil organisations. The existing four partners of the local government associations, such as Isotope Information Association (ITT), West-Mecsek Information Association (NYMTIT), two associations responsible for social monitoring and information (TEIT and TETT) represent the joint interests of 34 local governments.

The first issue of the newsletter of our company was published in the autumn of 2001 and has been distributed to the governmental and professional decision-influencers, decision-makers and partners of our company. Additionally, various booklets describing our sites and activi-



ties in details are also published regularly. In Paks Office a high-level visitors' hall welcomes all interested guests. A local exhibition room and information park is operated also in Kiszémedi, Boda and several locations.

The spaces established by mining methods on the underground site in Bataapáti have been visited by several thousand visitors.

Our company attends exhibitions as an organiser or sponsor.

Our written information materials issued in the local newspapers, such as 'Tájoló' published in the region of the planned

new repository for high-level wastes and the issues of 'NYMTIT News' help to keep the topic updated in the local, regional and national media.

Our programmes, such as the Day of 'Tájoló' or school competitions give an opportunity to inform adults, students and all interested people widely and to deepen the partnership through the relevant programmes.

The results and experience of public opinion surveys held in every two years help to improve our communication work.

Our company has got good relationship with specialised journalists working in

the media. Thanks to such relationships the news about our company is regularly and correctly published in the local, regional and national newspapers.

The above tasks are performed by the Communication Office of our company.

On our website (<http://www.rhk.hu/en/>) interesting information about the disposal of radioactive wastes in Hungary, the relevant projects, the sites of PURAM and activities of our company is available. It is a speciality of this site that it details the most important information about radioactive wastes for educational purpose by the means of films and animations.



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Fax: (+36) 75-519-589

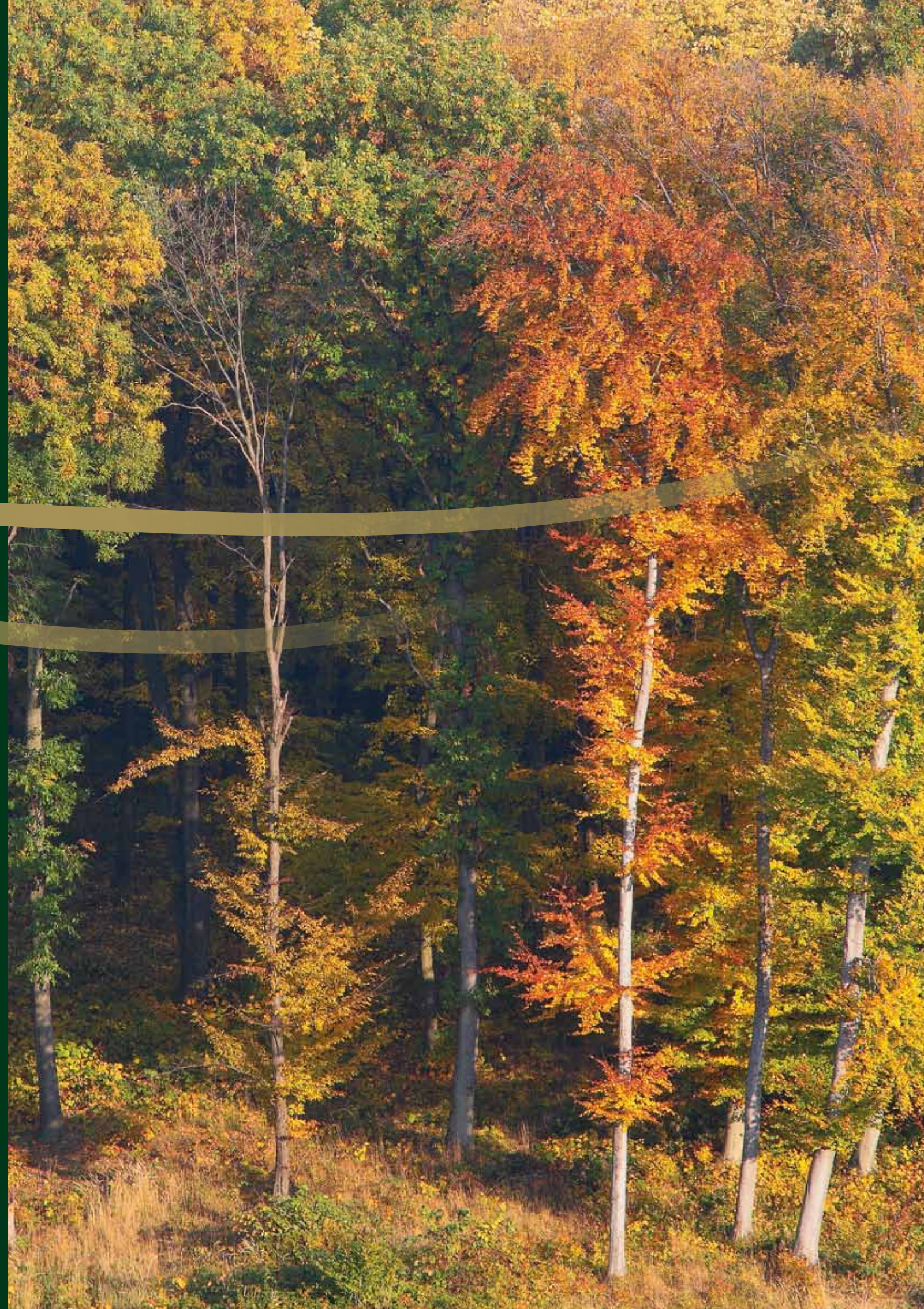
RWTDF

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With Responsibility,
Safety and Guarantees



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