

# 2019

ANNUAL  
REPORT

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## MISSION

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- Operation, maintenance and decommissioning of nuclear facilities
- Management of spent nuclear fuel and implementation of spent nuclear fuel transports
- Management of radioactive waste and implementation of radioactive waste, institutional radioactive waste and captured radioactive materials transports

## AUTHORIZATION OF THE MINISTRY OF ECONOMY OF THE SLOVAK REPUBLIC TO PERFORM ACTIVITIES

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Based on provisions of Act No. 350/2011, Coll., amending the Atomic Act No. 541/2004, Coll., the Ministry of Economy of the Slovak Republic has authorized JAVYS, joint stock company (JAVYS, a. s.), to perform activities related to the disposal of radioactive waste and spent nuclear fuel at the national level for all operators of nuclear facilities.

JAVYS, a. s., is the only company having professionally competent staff, relevant technical means, established facilities for the performance of these activities available and the company holds authorizations issued by supervisory bodies.

JAVYS, a. s., performs all activities within the meaning of the approved National Policy and National Programme of Spent Nuclear Fuel and Radioactive Waste Management in the Slovak Republic and in compliance with principles specified by EC Guideline 2011/70/Euratom.

# 1. SPEECH BY THE CHAIRMAN OF THE BOARD OF DIRECTORS AND THE CEO

Dear ladies, dear gentlemen,

it is the main mission of Jadrová a vyraďovacia spoločnosť, a. s., (JAVYS, a. s.), to perform activities within the meaning of the approved National Policy and the National Programme for the Management of Spent Nuclear Fuel (SNF) and Radioactive Waste (RAW), namely, in a safe, reliable and cost-effective manner, to decommission the A1 NPP and V1 NPP nuclear power plants, to provide nuclear services in spent nuclear fuel and radioactive waste management areas by means of optimum use of the existing processing capacities of RW PTT and to provide the related servicing. Our company ensures all the activities on a high professional and technical level, thus, confirming its essential position in the area of the back end of nuclear power engineering. Jadrová a vyraďovacia spoločnosť, a. s., is a joint stock company with the 100 % state ownership that exercises its shareholder rights by means of the Ministry of Economy of the Slovak Republic.

The provision of all the above-mentioned services has a significant impact for our company on the further development of its potential and on the stabilisation within the international space where our company is among significant partners in the long term. Our

company provides additional services to third parties resulting from servicing and lease contracts concluded and relying on professionalism, quality and guaranteed professional approach. Last year, our company met successfully all planned indicators. As to 31 December 2019, our company achieved the pre-tax economic result amounting to €7.418 mil., and the economic result after tax amounting to €4.605 mil. EBITDA was reported amounting to €11.514 mil.

In the year 2019, the main JAVYS, a. s., activities were covered by funding provided from NNF, BIDSF, SIEA and from revenues and returns obtained from commercial activities. The economic results achieved are given in the financial statements that were audited by an independent auditor without any reservations.

The decommissioning of the two oldest nuclear power plants in Slovakia – A1 NPP and V1 NPP – is among main activities performed by our company where significant process milestones were achieved in the year 2019. The A1 NPP is being decommissioned in a continual decommissioning manner, it is divided into 5 consecutive stages with the completion of the A1 NPP decommissioning scheduled for the year 2033.

By means of the continuous radioactivity inventory reduction through the decontamination and dismantling of technological equipment, systems and civil structures of the A1 NPP buildings being decommissioned and by means of continuing to process radioactive waste originating from the decommissioning and of historical radioactive waste resulting from operations, JAVYS, a. s., implemented all the planned A1 NPP decommissioning activities in the year 2019, in compliance with the schedule of works for the year 2019, derived from the A1 NPP Decommissioning Plan, Stages III and IV approved by relevant state administration authorities. The determined plan of activities for the year 2019 in the A1 NPP

decommissioning area, including the management of radioactive waste originating from the A1 NPP decommissioning, was fulfilled to the full extent with the adherence to principles of nuclear safety, radiation protection, occupational health and safety, fire protection and environmental protection.

In the areas of the implementation of the V1 NPP Decommissioning Project and the provision of continuity of the V1 NPP decommissioning, the implementation of key D4.2 project "Dismantling of Reactor Coolant System Large Components" continued in the year 2019, its main objective being the dismantling of the most contaminated equipment within the premises of the radiation controlled area of the V1 NPP Main Production Building.

Our company staff dismantled and transported all twelve steam generators to premises of the former V1 NPP Machine Hall, continued the fragmentation and decontamination activities, the dismantling and fragmentation of the main circulation pipelines.

In the year 2019, the construction of the steam generator dry fragmentation workplace was completed. Concurrently with this project, D4.4.B project "Dismantling of systems in V1 NPP controlled area – Part 1" was implemented, as well as other related projects. In compliance with the schedule, the important C9.4 project „Design and Erection of New Disposal Facilities for LLW and VLLW from V1 NPP Decommissioning at NRWR Močovce" was completed.

After its specified parameters have been achieved, the spent nuclear fuel produced by reactor units of nuclear power plants in Slovakia is subsequently transported and stored in the long term in the JAVYS, a. s., Interim Spent Fuel Storage nuclear facility in Jaslovské Bohunice. In the year 2019, 338 spent fuel assemblies were transported from the V2 NPP and EMO NPP.

The radioactive waste management is implemented using technological lines of nuclear facilities in Jaslovské Bohunice and Mochovce in an up-to-date and safe manner. Low-level RAW processed in RW PTT and FP LRW nuclear facilities is subsequently inserted and conditioned using cementation in fibre concrete containers and transported to the National RAW Repository in Mochovce. In the year 2019, 338 fibre concrete containers were stored in 2<sup>nd</sup> double-row of disposal boxes. JAVYS, a. s., is also an organization authorized to manage emitters and radioactive waste of unknown origin, unused emitters and radioactive materials, wherein, in the year 2019, 8 captures of sources of ionizing radiation of unknown origin were performed. By implementing these activities, our company fulfils its society-wide responsible task at the same time consisting, above all, in the protection of environment and health of Slovakia inhabitants.

As I have mentioned in the introductory part of this address, JAVYS, a. s., also holds its significant position in the international space, because greater and greater interest in its experience in the decommissioning of nuclear facilities and processing RAW exists abroad. The provision of these services establishes a space for our company to grow in the nuclear industry segment and, that is why, our company continued the implementation of commercial projects and successful expansion of its commercial activities in the year 2019 as well. In the year 2019, two contracts were concluded amounting to €2.13 mil.

Our company provides commercial services to companies in the Czech Republic, Italy, Germany and consultancy services to companies in Spain, Bulgaria, Croatia and Iraq. I would like to point out separately the consultancy contract with the European Commission in the chemical, biological and radioactive waste management areas for ten countries of the Eastern and Southern Europe our company is implementing in a consortium with 6 additional foreign companies (Sustainable Criminal Justice

Solutions CIC Limited, Inštitút pre medzinárodnú bezpečnosť a krízové riadenie, Public Health England, The Polish Military Institute of Chemistry and Radiometry, VERTIC and Cranfield University). In October 2019, a contract was concluded with the International Atomic Energy Agency to prepare a preliminary feasibility study for the institutional RAW disposal in Moldavia.

I find it very important to emphasize, in the context of the above-given, that the implementation of international commercial activities brings new sources of profits to our company which means that our company is not financed exclusively by public funds. Our company pays dividends to the state on profits produced and satisfies properly all of its additional tax and levy obligations which, to a significant extent, contributes to improvements in economic conditions of Slovakia inhabitants.

The year 2019 was also a successful year for our company in the nuclear safety adherence area that is a JAVYS, a. s., priority declared in the policy and objectives which are among top-level documents of the company integrated management system. In the year 2019, neither any fire, nor operational event was recorded in our company reportable to supervisory bodies.

The staff training area is no less important whose main objective was to prepare and maintain competent staff to ensure safe, reliable, ecological and economical operations of company nuclear facilities in spirit of safety culture principles and ALARA principles. The objective was successfully achieved, JAVYS, a. s., nuclear facilities were operated by competent staff who ensured safe, reliable, ecological and economical operations without any negative impact on nuclear safety.

The communications with the public are another important area as well. Our company places extraordinary emphasis thereon and, that is why, our company continued very intensive

communications with self-government representatives in the form of regular meetings in the year 2019 as well. At this moment, I would like to acknowledge the mutual correctness, responsiveness and a factual approach. Our objective is to achieve that citizens feel absolute certainty that our activities endanger neither their health, nor the surrounding environment.

Therefore, our company participates in meetings of Citizen Information Commissions, initiates meetings with top representatives of concerned municipalities and umbrella organizations in the region, offers self-government representatives possibilities to inspect workplaces in our company in order to verify objectiveness of information we provide.

Our company continues to make use of opportunities to inform the public by means of 'JAVYS u nás' company newsletter that is distributed to all households in the concerned municipalities, to self-governments and schools.

The public still have possibilities to get information on the company in the form of visits tour information centres in

Jaslovské Bohunice and Mochovce, or by means of our web site. I would also like to emphasize that last year our nuclear facilities were operated in compliance with the valid and up updated safety documentation approved by supervisory bodies of the Slovak Republic and that no violation of Technical Specifications (Limits and Conditions for Safe Operation) occurred. Our company also informed self-government representatives thereabout.

In the same way, I respect constructive and correct communications with our social partners. We respect the right of our staff members to associate in trade unions and we discuss mutually their incentives looking for possible common areas, compromises and optimum solutions.

In conclusion, I would like to say thank you this year, too, to all staff members of our company who are involved in the achievement of positive results in all areas to a significant extent and I believe that we will achieve results and obligations both towards our business partners and the whole society in the year 2020 as well.

**JUDr. Vladimír Švigár**

## 2. COMPANY BODIES

### THE BOARD OF DIRECTORS OF JAVYS, A. S.

#### **Chairman**

JUDr. Vladimír Švigár (since 3 July 2019)

#### **Vice-Chairman**

Ing. Anton Masár

#### **Members**

Ing. Ján Horváth

Ing. Miroslav Božík, PhD. (by 1 December 2019)

Ing. Tomáš Klein

### THE SUPERVISORY BOARD OF JAVYS, A. S.

#### **Chairman**

RNDr. Ing. Pavol Švec, CSc.

#### **Vice-Chairman**

JUDr. Eva Polerecká (since 15 February 2019)

#### **Members**

Mgr. Adrián Iványi

Ing. Ján Dudášik

JUDr. Eva Polerecká (by 14 February 2019)

Ing. Róbert Szűcs (since 15 February 2019)

RNDr. Roman Jakubec

Ing. Marián Vrtoch

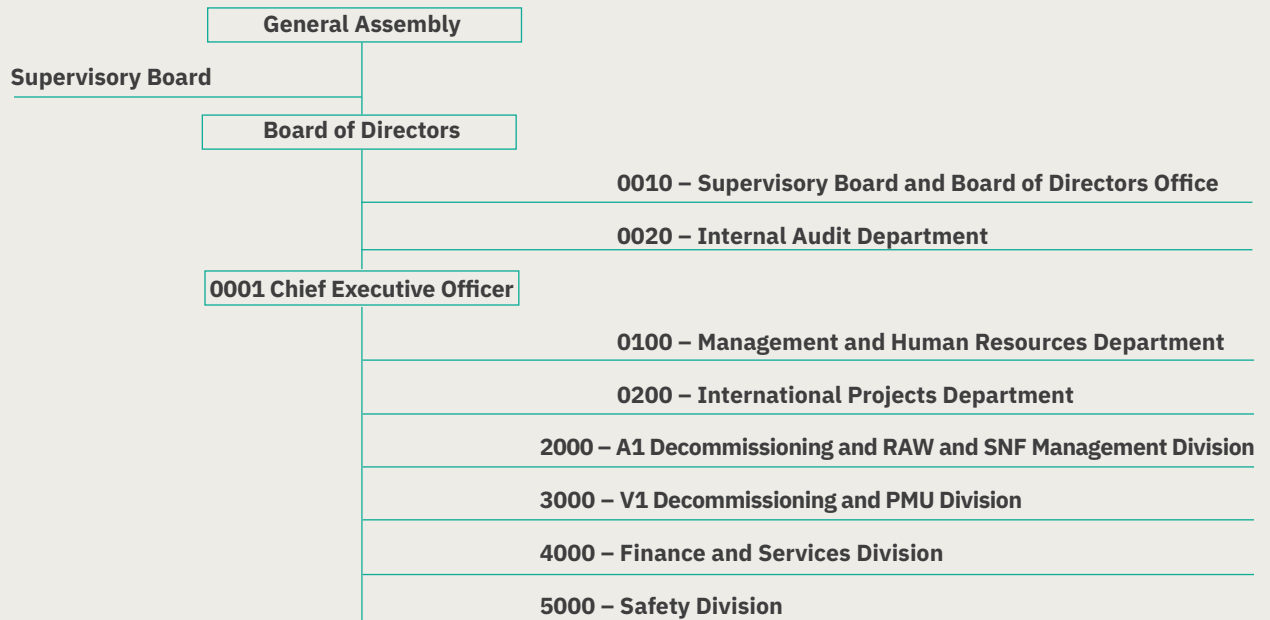
Ing. Daniel Vašina

### EXERCISE OF SHAREHOLDER RIGHTS

Jadrová a vyradovacia spoločnosť, joint stock company (JAVYS, a. s.), exercises its shareholder rights in Jadrová energetická spoločnosť Slovenska, joint stock company, a joint venture with a foreign shareholder where 51 % of stock of Jadrová energetická spoločnosť Slovenska, joint stock company, is owned by JAVYS, a. s., and 49 % of stock of Jadrová energetická spoločnosť Slovenska, joint stock company, is owned by the Czech Power Group ČEZ. By establishing Jadrová energetická spoločnosť Slovenska, joint stock company, a space was created to prepare the new nuclear source construction project in Jaslovské Bohunice, with the company activities being governed to the full extent by the Commercial Code and Company Statutes provisions in force.

# 3. ORGANIZATIONAL STRUCTURE AND HUMAN RESOURCES

## ORGANIZATIONAL STRUCTURE





## HUMAN RESOURCES

As to 31 December 2019, JAVYS, a. s., was employing 866 staff members, which is by 11 staff members more compared with the headcount as to the same period of last year.

### Staff structure

	as to 31 Dec 2019	Share in %
Workers	191	22.06
Technical-administrative staff	675	77.94
<b>Total</b>	<b>866</b>	<b>100.00</b>

### Staff structure by education level

	as to 31 Dec 2019	Share in %
Elementary	1	0.12
Secondary	535	61.78
University	330	38.10
<b>Total</b>	<b>866</b>	<b>100.00</b>

## STAFF TRAINING AND EDUCATION

The training and education of staff members is an important process of obtaining and maintaining qualified staff to perform operational and decommissioning activities on nuclear facilities in JAVYS, joint stock company (JAVYS, a. s.), the licence holder. Within the meaning of legal regulations, the licence holder shall define the staff professional training system resulting from the Professional Training Policy where the main company objective is specified as follows:

**Prepare and maintain competent staff to ensure safe, reliable, ecological and economical operations of company nuclear facilities in spirit of safety culture principles and ALARA principles. The objective was successfully achieved, JAVYS, a. s., nuclear facilities were operated by competent staff who ensured safe, ecological and economical operations without any more marked negative impact on nuclear safety.**

During the year 2019, the objective was inspected by state supervisory bodies in the staff education and training areas, in compliance with Act No. 541/2004 Coll. (Atomic Act), and with Ordinance of the Nuclear Regulatory Authority of the Slovak Republic No. 52/2006, Coll., on Professional Competence, as amended by Ordinance No. 34/2012, Coll., and with Ordinance No. 410/2019, Coll. The professional training was provided within the meaning of planned professional training schedules and requirements specified by professional departments. In connection with authorizations to operate and decommission nuclear facilities, all conditions for the staff professional competence were met.

JAVYS, joint stock company (JAVYS, a. s.), has qualified and professionally competent staff available to perform activities on nuclear facilities, within the meaning of the staff professional training system. The performance in compliance with Act of the National Council of the Slovak Republic No. 124/2006, Coll., with Ordinance of the Ministry of Labour, Social Matters and Family of the Slovak Republic No. 508/2009, Coll., and with other legal regulations focused on safe implementation of working activities on nuclear facilities was the main priority of the professional training in occupational activities. In order to ensure increased staff professional levels, education sessions, courses and seminars were provided beyond requirements specified by legal regulations. Education activities were implemented, focused on the decommissioning of nuclear facilities, management control, staff instruction in meeting the revised act on personal data protection, or education courses in cases of amendments to legal regulations of the Slovak Republic.

## 4. STRATEGY AND QUALITY ASSURANCE

The JAVYS, a. s., strategy is to fulfil the company vision and mission while respecting the Energy Security Strategy of the Slovak Republic and the Draft of the National Policy and the National Programme for the Management of Spent Nuclear

Fuel and Radioactive Waste in the Slovak Republic, wherein the JAVYS, a. s., strategy implementation was going on in the following areas in 2019:

### **a) RAW, SNF, IRAW and CRAM Management**

Activities were performed in relation to RAW, SNF, IRAW and CRAM management, in compliance with the Draft of the National Policy and the National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic and with the Complex Programme for the Management of RAW and SNF in JAVYS, a. s.

### **b) A1 NPP Nuclear Facility Decommissioning**

Tasks related to the safe, effective and reliable A1 NPP decommissioning were performed in compliance with the Draft of the National Policy and the National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic, with the A1 NPP Decommissioning Plan, Stages III and IV and with the decommissioning concept for the period after the end of the stage to be permitted.

### **c) V1 NPP Nuclear Facility Decommissioning**

Tasks related to the safe, effective and reliable V1 NPP decommissioning were performed in compliance with the V1 NPP Decommissioning Plan, Stage II, with the V1 NPP Decommissioning Strategy, with the Detailed Decommissioning Plan and with JAVYS, a. s., planning documents and in compliance with the Draft of the National Policy and the National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic.

### **d) Company Development**

Activities were performed in connection with preparations and implementation of approved investment projects and with actions leading to the expansion of SNF processing capacities and storage capacities, wherein the compliance between operated and decommissioned nuclear facilities including completed EIA processes and changes in nuclear

facilities that are under preparation and Act of the National Council of the Slovak Republic No. 24/2006, Coll., on Environmental Impact Assessment, was provided as well.

#### **e) Finance and Services**

In compliance with the economically stable company strategy, EBITDA performance was provided at the level specified in the Business Plan and Financial Budget for the year 2019. The procurement of contracts for goods, services and construction works was provided continuously on the basis of the JAVYS, a. s., Yearly Public Procurement Plan and the aggregate revenue volume from sales of surplus property and recoverable material was in compliance with the Plan.

#### **f) Company Governance**

Within this area, the JAVYS, a. s., effective company governance system was developed, in compliance with the approved V1 NPP and A1 NPP Decommissioning Strategy Concept and with the Draft of the National Policy and the National Programme for the Management of Spent Nuclear Fuel and Radioactive Waste in the Slovak Republic, the goodwill of JAVYS, a. s., was being built up as a trustworthy company placing emphasis on the protection of public health and environment, while the occupational health and safety system management level was also improved and continuously enhanced in order to restrict potential health threats due to technological processes, technical equipment, human activities and working environment.

#### **g) International Commercial Activities**

In the year 2019, the company continued the implementation of commercial projects, as well as the successful acquisition of foreign commercial activities in order to establish conditions to increase JAVYS, a. s., revenues.

## QUALITY ASSURANCE

In the year 2019, JAVYS, a. s., defended the validity of certificates issued in compliance with the following standards: ISO 9001:2015

for the Quality Management System and ISO 14001:2015 for the Environmental Management System and received the internationally recognized certificate in compliance with standard ISO 45001:2018 for the Occupational Health and Safety System that replaced the OHSAS 18001:2007 standard. The certificates are valid for the following focus area: „Decommissioning of Nuclear Facilities and Management of Radioactive Waste, Institutional Radioactive Waste, Captured Radioactive Waste and Spent Nuclear Fuel”.

The provision of certificates for the year 2020 confirms the correctness of JAVYS, a. s., moving towards continuous quality improvement and helps consolidate its position on both the national and international markets of nuclear services and achieve its better overall perception by the public. JAVYS, a. s., also possesses a certified IT Services Management System in compliance with standard ISO/IEC 20000-1:2011 „Information Technology - Service Management – Service Management System Requirements – Part 1: Service Management System Requirements“ for the focus area of „Service Management System of the Department of Informatics and Telecommunications, supporting the provision of office and supporting information services within the whole company, in compliance with the Catalogue of Services“. In the year 2019, intensive preparations were under way for the recertification of this management system, in compliance with the revised standard ISO/IEC 20000-1:2018. The recertification audit is scheduled for the year 2020.

It is a long-term JAVYS, a. s., intention to present itself as a trustworthy company performing activities related to the decommissioning of nuclear facilities and management of radioactive waste, institutional radioactive waste, captured radioactive materials and spent nuclear fuel on a high qualitative level with the maximum emphasis on occupational health and safety of staff and population of the region, as well as on the environmental protection. The acquisition of the certificates also testifies about the fact that the company functions and implements its mission within the framework of internationally recognized standards and is managed in a safe manner.

## 5. YEAR IN BRIEF

### 31 JANUARY

The meeting among the company management and mayors of municipalities from within the Mochovce region was held in Kalná nad Hronom. Its objective was to inform the self-government representatives on JAVYS, a. s., economy in the year 2018 and on current projects in the processes of A1 NPP and V1 NPP decommissioning, and management of radioactive waste and spent nuclear fuel.

### FROM 12 TO 13 MARCH

JAVYS, a. s., was visited by European Commission representatives, Mr. Bert Leemans and Mr. Robert Kunde. Within the regular monitoring of implemented works related to the V1 NPP decommissioning, they acquainted themselves with the current state of relevant projects and scheduled activities of the Bohunice Programme.

### FROM 13 TO 14 MARCH

A tripartite workshop focused on the knowledge exchange among decommissioning programmes of Bohunice, Kozloduj (Bulgaria) and Ignalina (Lithuania) was held in Jaslovské Bohunice, the workshop having been held in premises of one of the nuclear facilities under decommissioning once yearly since the year 2015.

### 20 MARCH

Members of the Slovak Nuclear Insurance Pool and the Czech Nuclear Insurance Pool paid a visit to the National RAW Repository in Mochovce. They were interested in activities performed by JAVYS, a. s., in the area of the back end of Slovak nuclear power engineering.

### FROM 24 TO 29 MARCH

Mayors of municipalities from within the Jaslovské Bohunice region paid a visit to Italian companies with which JAVYS, a. s., conducts business activities in the RAW processing area.

### FROM 4 TO 5 APRIL

DNV GL auditors verified the meeting of requirements specified by standard ISO/IEC 20000-1 Information Technology (IT) Service Management System Requirements. JAVYS, a. s., defended the quality of IT services provided and became the ISO/IEC 20000-1 certificate holder for the period from 2019 to 2021.

### 10 APRIL

JAVYS, a. s., representatives discussed with IAEA representatives, Mr. Christoph Xerri and Mr. Vladimír Michal further forms of cooperation and development of mutual relations.

### 12 APRIL

The Nuclear Regulatory Authority of the Slovak Republic permitted to operate 3<sup>rd</sup> double-row of disposal premises for low-level radioactive waste in the National RAW Repository in Mochovce. The total capacity of the three double-rows is 10,800 fibre concrete containers.

### FROM 17 APRIL TO 22 MAY

7<sup>th</sup> year of the Nuclear Days in Pilsen event was focused on promotion of nuclear power use in the form of professional lectures and an exhibition of showpieces. JAVYS, a. s., provided showpieces for the exhibition and presented experience from activities included in the back end of nuclear power engineering in Slovakia, particularly from the decommissioning of A1 and V1 NPP nuclear facilities and management of radioactive waste.

## FROM 29 TO 30 APRIL

JAVYS, a. s., representatives took part in 14<sup>th</sup> European Nuclear Forum session that was held in Prague. Its objective was to support a responsible approach to issues of nuclear power engineering, nuclear safety and to reinforce the guarantee scheme against any misuse of nuclear materials.

## 2 MAY

Members of the JAVYS, a. s., management discussed technical matters concerning the activity 'Optimization of Incineration Capacities of RW PTT Nuclear Facility' with representatives of 'We Want to Have a Healthy Country' citizenship initiative from Žlkovce and Ratkovce municipalities.

## 23 MAY

Within the regular session, JAVYS, a. s., Supervisory Board members paid a visit to the National RAW Repository in Mochovce where they took a view of disposal boxes of the operated double-row and acquainted themselves with protective barriers against radioactivity leakage into the environment.

## 19 JUNE

Austrian participants in 27<sup>th</sup> bilateral meeting paid a visit to JAVYS, a. s. During the V1 NPP inspection, they acquainted themselves in the Machine Hall with activities involved in the implemented project focused on the dismantling of large-size primary circuit components.

## FROM 25 TO 26 JUNE

The international conference ECED 2019 – Safe and Effective Decommissioning in the Eastern and Central European – supported by JAVYS, a. s., was held in Trnava. It included a separate block for regional self-government members.

## 3 JULY

JUDr. Vladimír Švigár was elected a member of the company Board of Directors and, at the same time, it was also decided to appoint him as the chairman of the JAVYS, a. s., Board of Directors by the Ministry of Economy of the Slovak Republic.

## 15 AUGUST

Members of the JAVYS, a. s., management discussed technical matters concerning the activity 'Optimization of Incineration Capacities of the JAVYS, a. s., RW PTT Nuclear Facility on the Jaslovské Bohunice Site' with representatives of 'We Want to Have a Healthy Country' citizenship initiative from Žlkovce and Ratkovce municipalities.

## 26 AUGUST

A public hearing dedicated to the environment impact assessment report covering the activity 'Optimization of Incineration Capacities of RW PTT JAVYS, a. s., Nuclear Facility on the Jaslovské Bohunice Site' was held in Nižná.

## 11 SEPTEMBER

During the workshop on subject 'Nuclear Power Engineering for the Sustainable Development' organized by the Citizen Information Commission Mochovce and the Interest Regional Association of Cities and Municipalities, local self-government representatives acquainted themselves with activities performed by nuclear companies active on the Mochovce site and by regulatory bodies of the Slovak Republic.

## FROM 12 TO 13 SEPTEMBER

During their regular monitoring mission, European Commission representatives, Mr. Bert Leemans and Mr. Stratos Valakis assessed the state of works in the V1 NPP being decommissioned.

## 13 SEPTEMBER

A JAVYS, a. s., Day of Sports was held on the Jaslovské Bohunice municipality sports site where company staff members, in addition to sport competitions, made their choices from a varied offer of complementary activities and recovery inspirations as well.

## 25 SEPTEMBER

The sitewide emergency exercise 'Céder 2019' ('Cedar 2019') was held on the nuclear power engineering complex site in Jaslovské Bohunice focused on the verification of activities performed by the JAVYS Emergency Response Organization, as well as of procedures to identify, classify, localize and remove consequences of simulated events, 589 persons participated.

## 17 OCTOBER

Local self-government representatives discussed in the NPP Jaslovské Bohunice region with representatives of nuclear companies and supervisory bodies of the SR during a workshop organized by the Citizen Information Commission Bohunice and the Association of Cities and Municipalities – Jaslovské Bohunice region.

## FROM 29 TO 30 OCTOBER

A group of five Lithuanian experts from the Ignalina NPP paid a visit to the Jaslovské Bohunice site. Paying an expert visit, during the March tripartite workshop, took a view of Interim RAW storage and of metallic RAW decontamination and fragmentation lines.

## FROM 5 TO 6 NOVEMBER

JAVYS, a. s., organized 22<sup>nd</sup> Regional Workshop on RAW Disposal within Topoľčianky Castle in which experts from the CR, HU, Slovenia, Austria, Finland and SR took part. The workshop involved an inspection of the National RAW Repository in Mochovce.

## 8 NOVEMBER

Czech mayors and representatives of municipalities from Skalka locality along with ČEZ company representatives paid a visit to the National RAW Repository in Mochovce where they took a view of disposal boxes of the operated double-row and were interested in activities related to RAW management in the Slovak Republic.

## FROM 11 TO 13 NOVEMBER

DNV GL certification company auditors reviewed the meeting of requirements specified by standards ISO 9001:2015 (Quality Assurance), ISO 14001:2015 (Environmental Protection) and also performed the so-called transition audit focused on the verification by standards ISO 45001:2018 for the Occupational Health and Safety by standard OHSAS 18001:2007 are met. JAVYS, a. s., defended the validity with standards ISO 9001 and ISO 14001 and obtained the internationally recognized certificate with standard ISO 45001.

## 16 DECEMBER

A repeated public hearing dedicated to the environment impact assessment report covering the activity 'Optimization of Incineration Capacities of the JAVYS, a. s., RW PTT Nuclear Facility on the Jaslovské Bohunice Site'.

## 2019

In the year 2019, JAVYS, a. s., provided 8 cases where radioactive materials of unknown origin were captured. They were especially various parts of automatic teller machines, metallic prisms.

JAVYS, a. s., transported 338 fuel assemblies of spent nuclear fuel from the V2 NPP in Jaslovské Bohunice and NPP in Mochovce to the ISFS in Jaslovské Bohunice. The SNF transport and management is one of areas performed and provided by JAVYS, a. s., as a service for Slovak Power Plants, j. s. c. (Slovenské elektrárne, a. s.).

# 6. DECOMMISSIONING OF NUCLEAR FACILITIES

## V1 NPP DECOMMISSIONING

The decommissioning of the nuclear power plant in Jaslovské Bohunice, two V1 reactor units, is scheduled in two stages from 20 July 2011 to 31 December 2025. The objective of the V1 NPP decommissioning is to achieve the exemption of the nuclear facility from the scope of application of the Atomic Act by means of the dismantling of equipment, demolitions of buildings, management of waste originating from the V1 NPP decommissioning, including the processing and safe disposal of radioactive waste (RAW) in the National Radioactive Waste Repository in Mochovce, or their safe storage in the Interim Radioactive Waste Storage on the Jaslovské Bohunice site.

The V1 NPP site will be released for industrial use after the decommissioning is completed.

The Nuclear Regulatory Authority of the Slovak Republic issued Decision No. 900/2014 of 23 December 2014, based on which the implementation of Stage II of the V1 NPP nuclear facility decommissioning started in 2015. The decision also included the permission to manage radioactive waste and the permission to manage nuclear materials found in the V1 NPP nuclear facility.

During the year 2019, the implementation of V1 NPP decommissioning activities continued within the meaning of the Plan for Stage II of the Decommissioning and in accordance with the concerned decision of the Nuclear Regulatory Authority of the Slovak Republic for Stage II of the V1 NPP decommissioning.

## MAIN V1 NPP DECOMMISSIONING ACTIVITIES IN 2019

- locking and disconnection of systems,
- implementation of projects
  - support surveys for the V1 NPP decommissioning,
  - dismantling of unnecessary equipment and systems,
  - decontamination of reactor coolant system equipment prior to their dismantling,
  - dismantling of equipment and large components of the reactor coolant system at both the V1 NPP reactor units,
  - modifications of the power plant and changes in equipment and systems used during the V1 NPP decommissioning,
- management of radioactive, conventional and hazardous wastes,
- preparations of technical and tender documentation for projects of the V1 NPP decommissioning, Stage II.

From the point of view of the implementation of the overall V1 NPP Decommissioning Project and the provision of continuity of the V1 NPP decommissioning, the implementation of key D4.2 project *"Dismantling of Reactor Coolant System Large Components"* continued, its main objective being the dismantling of the most contaminated equipment (reactor pressure vessels at both the reactor units, steam

generators, reactor coolant pumps, primary circuit pipelines and other technological components) and liners within the premises of the radiation controlled area of the V1 NPP Main Production Building. Implemented works were related to the dismantling and transport of all 12 steam generators to premises of the former V1 NPP Machine Hall, fragmentation and decontamination activities, dismantling and fragmentation of the main circulation pipelines. In the year 2019, the following activities were completed: the fragmentation of the Reactor Unit 1 pressurizer, the construction of the steam generator dry fragmentation workplace in the former V1 NPP Machine Hall where workplace complex tests were commenced and, at the end of the year, the implementation of the construction part of wet cutting workplaces for reactor vessels, internal reactor parts and other activated components as well.

Concurrently with this project, D4.4.B project *"Dismantling of systems in V1 NPP controlled area – Part 1"* was also implemented, as well as other related projects, and the implementation of D4.4C.01 project *"Dismantling of Systems in V1 NPP Controlled Area – Part 2, subproject D4.4.C.01"* was commenced.

In parallel with the dismantling activities, processes of managing radioactive waste produced, their transport and release of materials meeting release criteria into the environment, were running continually.

In the year 2019, the implementation of D4.1 project *"Modification of the Plant and Installation of New Equipment"* continued, aimed at inevitable modifications of the Reactor Building and Active Auxiliary Building for the decommissioning and removal of the Interim Spent Fuel Storage dependence on the V1 NPP being decommissioned, by means of the construction of replacement facilities.

In compliance with the schedule, the important C9.4 project *"Design and Erection of New Disposal Facilities for LLW and VLLW from V1 NPP*

*Decommissioning at NRWR Mochovce"* was completed, its object being the design, licencing process performance, construction and commissioning of new disposal facilities for low-level and very-low-level radioactive waste from the V1 NPP Decommissioning at NRWR Mochovce. Within the framework of the completed D4.4A1 project *"Modification of Equipment in AKOBOJE System"*, the inevitable dismantling and modifications of security system elements were performed.

## PREPARATION OF PERIODIC DOCUMENTS

In connection with the V1 NPP decommissioning project management in compliance with the European Union requirements and in accordance with Council Regulation (EURATOM) No. 1368/2013 of 13 December 2013, JAVYS, a. s., prepared the following periodic documents during the year 2019:

- **Monitoring Reports for the Bohunice Programme (assessment period 7 – 12/2018 and 1 – 6/2019)**

Since 2015, monitoring reports have been prepared regularly twice a year where the progress in the V1 NPP decommissioning is monitored and assessed for the monitored time period. The documents serve to the Monitoring Commission to compare planned objectives from the relevant work plan with results achieved for the monitored time period.

- **Work Plan for the Bohunice Programme (for the year 2020)**

The document sets out objectives, planned data necessary for calculations of V1 NPP decommissioning performance indicators and the time schedule of absorbing funds for calendar year 2020. The document will serve as a background material for the European Commission to monitor the progress in the V1 NPP decommissioning for calendar year 2020.



## MONITORING AND AUDIT

In March and September 2019, European Commission representatives paid regular visits to JAVYS, a. s., to monitor the progress in the V1 NPP decommissioning.

## BOHUNICE PROGRAMME

V1 NPP decommissioning activities are co-financed from the EU Financial Assistance Programme for measures related to the V1 NPP decommissioning through the Bohunice International Decommissioning Support Fund (BIDSF). The BIDSF funds intended for the implementation of individual V1 NPP decommissioning projects are absorbed on the basis of grant agreements concluded between JAVYS, a. s., and the European Bank for Reconstruction and Development (EBRD). The signing of agreements themselves is preceded by the preparation of documentation to individual projects when JAVYS, a. s., as the beneficiary of the BIDSF fund financial assistance, identifies the individual projects at first, proposes methods of their technical implementation and funding, presents them during meetings of the SR-EBRD Joint Committee and, finally, defends them by means of the National Coordinator (the Ministry of Economy of the Slovak Republic) during the Assembly of BIDSF Contributors session that is held twice yearly. As to the end of 2019, JAVYS, a. s., had 18 signed grant agreements with EBRD available in the total amount of €475 million to finance the V1 NPP decommissioning projects.

In August 2016, activities of the national implementation authority for the V1 NPP decommissioning – the Slovak Innovation and Energy Agency (SIEA) – were commenced. SIEA represents a parallel

way of funding the V1 NPP decommissioning projects by EU funds, in addition to the funding by means of the EBRD implementation authority (BIDSF fund). Since 2016, the EU funds for the Bohunice Programme have been reallocated between the two above mentioned implementation authorities. On the basis of the European Commission Implementation Decision of 9 July 2019, funds amounting to €33,475,000 were allocated for the benefit of SIEA as the EU financial assistance for the decommissioning of nuclear power plants for the calendar year 2019. Cumulatively, EU funds amounting to €160,941,000 were allocated for the benefit of SIEA from the commencing of its activities by 31 December 2019. Out of funds allocated in this manner, EU used €180,000, to provide two audits. In September 2017, a grant agreement was signed between JAVYS, a. s., and SIEA for D4.4C.01 project „*Dismantling of Systems in V1 NPP Controlled Area – Part 2*” amounting to €26,296,000. In December 2019, another grant agreement was signed between JAVYS, a. s., and SIEA for D4.7.01 project „*Decontamination and Demolition of V1 NPP Buildings and Site Reinstatement*“, amounting to €159,363,000. The D4.7.0.1 project grant is split into the following stages: Stage 1 (€63,292,000), Stage 2 (€61,601,000) and Stage 3 (€34,470,000), wherein the Stage 3 funds will be allocated from EU to SIEA in the year 2020.

### Projects to which grants were awarded from EU funds in the year 2019

- A1.10 project „*PMU Consultant (Stage 10)*”
- D0 Project „*Decommissioning Program Implementation Using Human Resources Available at the Bohunice V1 NPP*” (for the year 2020)
- D4.7.01 project „*Decontamination and Demolition of V1 NPP Buildings and Site Reinstatement, subproject D4.7.01*”

## Costs and Funds to Cover the V1 NPP Decommissioning for the Period from 7/2011 to 2019 (€)

V1 NPP	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
<b>Total costs (Operational and investment)</b>	26,070,182	46,307,673	44,523,089	67,078,417	51,745,947	45,853,912	54,175,036	79,068,141	74,914,253	<b>489,736,650</b>
<b>Coverage funds</b>										
<b>NNF including depreciation</b>	7,835,280	7,868,682	17,556,993	19,482,985	17,821,832	17,216,178	17,312,759	16,526,358	18,632,371	<b>140,253,438</b>
<b>BIDSF incl. D0 and depreciation</b>	10,936,129	25,448,338	25,774,314	46,605,562	32,389,849	27,853,127	35,817,132	62,521,164	55,120,621	<b>322,466,236</b>
<b>JAVYS, a. s.</b>	7,298,773	12,990,653	1,191,782	989,870	1,534,266	784,606	1,045,145	20,619	1,161,261	<b>27,016,976</b>
<b>Total funds</b>	26,070,182	46,307,673	44,523,089	67,078,417	51,745,947	45,853,912	54,175,036	79,068,141	74,914,253	<b>489,736,650</b>
<b>Out of that: Slovak funds</b>	15,134,053	20,859,335	18,748,775	20,472,855	19,356,098	18,000,784	18,357,904	16,546,977	19,793,632	<b>167,270,413</b>

% of financing for the V1 NPP decommissioning from Slovak funds: 34 %

## Contracts Concluded for the BIDSF Projects in the year 2019

During the year 2019, a contract with a supplier was concluded for D4.4C.01 project "Dismantling of Systems in V1 NPP Controlled Area – Part 2, subproject D4.4.C.01".

## Projects under Implementation during the Year 2019

Project code	Project name	Course of implementation
A1.9	PMU Consultant (Phase 9)	01/2018 – 12/2019
B6.6A	Decommissioning Support Surveys	03/2017 – 03/2022
C7-A4	Metallic RAW Melting Facility	09/2016 – 09/2020
C9.4	Design and Erection of New Disposal Facilities for LLW and VLLW from the V1 NPP Decommissioning at NRWR Mochovce	01/2016 – 04/2019
D0	Implementation of the Decommissioning Programme Using the Human Resource Available at Bohunice V1 NPP	01/2018 – 12/2019
D4.1	Modification of the Plant and Installation of New Equipment	02/2017 – 09/2021
D4.2	Dismantling of Reactor Coolant System Large Components	10/2017 – 12/2022
D4.4A1	Modification of Equipment in AKOBOJE System	04/2017 – 07/2019
D4.4B	Dismantling of Systems in V1 NPP Controlled Area – Part 1	09/2017 – 03/2021
D4.4C.01	Dismantling of Systems in V1 NPP Controlled Area – Part 2, subproject D4.4.C.01	08/2019 – 02/2025

## Projects Completed in the Year 2019

Project code	Project name	Course of implementation
A1.9	PMU Consultant (Stage 9)	01/2018 – 12/2019
C9.4	Design and Erection of New Disposal Facilities for LLW and VLLW from the V1 NPP Decommissioning at NRWR Mochovce	01/2016 – 04/2019
D4.4A1	Modification of Equipment in AKOBOJE System	04/2017 – 07/2019

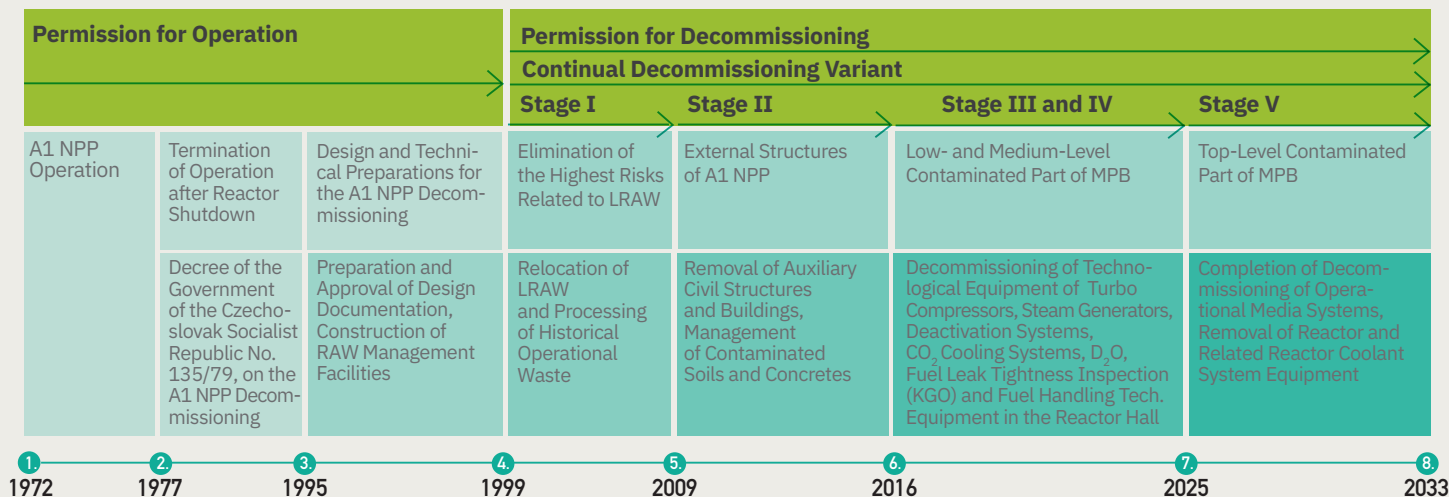
As to 31 December 2019, the total of 61 of V1 NPP decommissioning projects were completed, 8 projects were under implementation and 1 project was under preparations for the procurement.

## A1 NPP DECOMMISSIONING

The A1 NPP decommissioning is implemented in a continuous decommissioning process, divided into five consecutive stages, with the completion of the A1 NPP decommissioning scheduled for 2033. The implementation of Stage I of the A1 NPP decommissioning was commenced in 1999 and it was completed in 2009. Since 2009, the A1 NPP decommissioning had continued by Stage II which was

completed as to 30 September 2016, after the achievement of all the determined objectives specified in the permission documentation approved by state administration bodies. Since 1 October 2016, the continuous process of the A1 NPP decommissioning has proceeded by Stages III and IV within the meaning of the permission documentation approved by the state administration bodies.

### A1 NPP Decommissioning Timeline



The subject of the running A1 NPP decommissioning Stages III and IV includes the decommissioning of the reactor coolant system technological equipment, the technological equipment used in the past to prepare spent nuclear fuel for the transport, two steam generators, the turbo compressor oil management system, the heavy water management system technological equipment, the CO<sub>2</sub> management system, the primary circuit technological equipment cooling system and other connected and related technological equipment found within the A1 NPP Main Production Building.

The A1 NPP decommissioning Stages III and IV also include the continuation of processing the radioactive waste originating from the decommissioning and historical radioactive waste.

In compliance with objectives of the A1 NPP decommissioning Stages III and IV, the following activities were performed in particular in the year 2019:

- processing of 45 pieces of A1 NPP SNF long-term storage caskets,
- processing of 1.8 m<sup>3</sup> of chrompik III medium originating from the A1 NPP SNF long-term storage caskets, using VICHR (chrompik vitrification) technological line,
- processing of 2.945 m<sup>3</sup> of sludge originating from the A1 NPP SNF long-term storage pool, using SUZA (mobile fixing facility) technological line, including the production of 150 pieces of 200-litre barrels with a fixed product,
- processing of 79.28 m<sup>3</sup> of sludges from tanks in outdoor buildings, using ZFK (sludge fixing facility), including the production of 893 pieces of 200-litre barrels with a fixed product,
- decommissioning of the D<sub>2</sub>O management system technological equipment, the CO<sub>2</sub> cooling system technological equipment, sipping supervision system technological equipment, auxiliary systems in workshops and storehouses, service, storage and air-conditioning technological equipment, special sewer system decontamination, fragmentation and decontamination of large metallic materials within the Reactor Building,
- decommissioning of technological systems of cooling water distribution pipelines, of backup TKC rooms, technological systems of emergency sprays, of HVAC and air-conditioning systems, of technological lifting equipment and related transport equipment, steam generator safety valves including their electrical equipment, I & C equipment and HVAC systems within the Intermediate Machine Hall,
- decommissioning of technological equipment of CO<sub>2</sub>, pipe-line systems and the HVAC system found in the gas management system building,
- decontamination of the austenitic liner in N1/1 tank of the liquid RAW disposal facility,
- decontamination of solid RAW disposal facility pits,
- decontamination of civil structural parts, the management of soils and concretes, the radioactive material monitoring, the monitoring and sanitation of ground water and percolating ground water.

By means of the continuous radioactivity inventory reduction through the decontamination and dismantling of technological equipment, systems and civil structures of the A1 NPP buildings being decommissioned and by means of the continuation to process radioactive waste originating from the A1 NPP decommissioning and of historical radioactive waste resulting from operations, JAVYS, a. s., implemented all planned A1 NPP decommissioning activities in the year 2019, in compliance with the schedule of works for the year 2019, derived from the A1 NPP Decommissioning Plan, Stages III and IV approved by relevant state administration authorities. The determined plan of activities for the year 2019 in the A1 NPP decommissioning area, including the management of radioactive waste originating from the A1 NPP decommissioning, was fulfilled to the full extent with the adherence to principles of nuclear safety, radiation protection, occupational health and safety, fire protection and environmental protection.

## 7. RADIOACTIVE WASTE MANAGEMENT

Individual activities within radioactive waste (RAW) management processes were performed in the following nuclear facilities of the company, while adhering to conditions of nuclear safety, radiation protection, occupational health and safety, fire protection and environmental protection:

- **RW PTT** – Radioactive Waste Processing and Treatment Technologies in Jaslovské Bohunice,
- **FP LRW** – Final Processing of Liquid Radioactive Waste in Mochovce,
- **NRWR** – National Radioactive Waste Repository in Mochovce,
- **IRWS** – Interim Radioactive Waste Storage in Jaslovské Bohunice.

### RADIOACTIVE WASTE PROCESSING AND TREATMENT

The implementation of the A1 NPP and V1 NPP decommissioning processes themselves within the scope of the management of radioactive waste originating from the decommissioning of those nuclear facilities, moreover, the management of radioactive waste originating from the V1 NPP and EMO1,2 reactor units operated by Slovak Power

Plants, joint stock company (Slovenské elektrárne, a. s.), as well as the management of radioactive waste originating from non-nuclear facilities, is the key task for the operation of the following nuclear facilities – the Radioactive Waste Processing and Treatment Technologies in Jaslovské Bohunice and the Final Processing of Liquid Radioactive Waste in Mochovce. The RW PTT nuclear facility consists of the Bohunice Radioactive Waste Treatment Centre (BRWTC), bituminisation lines, the low-level water purification plant, radioactive waste sorting workplaces, metallic radioactive material fragmentation and decontamination workplaces, used HVAC filters and used electrical cables processing workplaces.

Facilities processing radioactive concentrates and saturated ionexes from EMO1,2 operations are operated in the FP LRW nuclear facility.

Subsequently, the processed low-level RAW are inserted into fibre concrete containers and processed by cementation in RW PTT and FP LRW nuclear facilities and transported to the JAVYS, a. s., National RAW Repository in Mochovce. In the year 2019, 280 pieces of fibre concrete containers comprising RAW were processed in this manner in RW PTT and 72 pieces of fibre concrete containers comprising RAW were processed in this manner in FP LRW.

#### Overview of Amounts of Processed and Treated Radioactive Waste in 2019

Nuclear facility	Type of RAW (measuring units)	Processed amounts
RW PTT	Combustible solid RAW (t)	86.888
	Combustible liquid RAW (m <sup>3</sup> )	21.113
	Compactible RAW (t)	440.042
	Metallic RAW (t)	245.584
	Liquid RAW (m <sup>3</sup> )	313.713
	Used HVAC filters (t)	14.653
FP LRW	Liquid RAW (m <sup>3</sup> )	71.527
	Saturated ionexes (m <sup>3</sup> )	22.356

## RAW TRANSPORTS

During the year 2019, 741 transports of RAW were performed in the following certified transport package sets: 200 l Meva barrel, ISO container, shipping containers PK I/DOW, PK II /SLUDGES, PK III /BARRELS, PK/SK, PK/SK 2 and fibre concrete containers.

## RAW DISPOSAL

The National Radioactive Waste Repository nuclear facility in Mochovce serves for the final disposal of conditioned low-level RAW and very low-level RAW produced during operations

and decommissioning of nuclear facilities in the territory of the Slovak Republic, institutional RAW and radioactive materials of unknown origin.

Fibre concrete containers filled-up with conditioned low-level RAW are finally disposed in storage boxes of operated double rows in the Repository, after their transportation from RW PTT and FP LRW nuclear facilities. During the year 2019, 338 fibre concrete containers with RAW were stored in the second double-row of storage boxes.

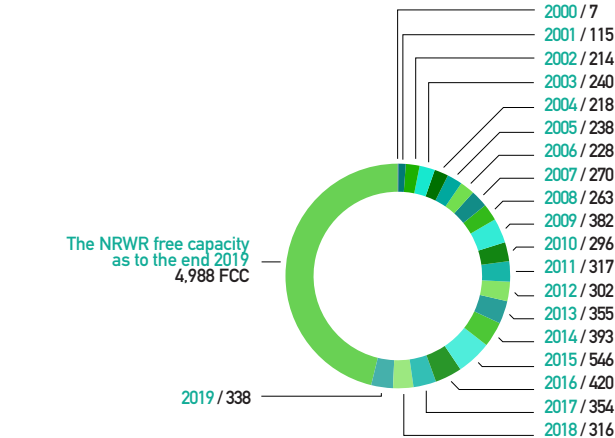
Since 2016, approved packed forms (large-volume bags and barrels) have been stored in the VLLW Repository disposal structures constructed for that type of waste. During the year 2019, 3,355.41 m<sup>3</sup> of very-low level RAW were stored in the VLLW Repository.

### Overview of FCC Storage in NRWR in 2019

FCC storage in NRWR (pcs)		Total number of FCC stored in NRWR (pcs)
RW PTT	FP LRW	
270	68	338

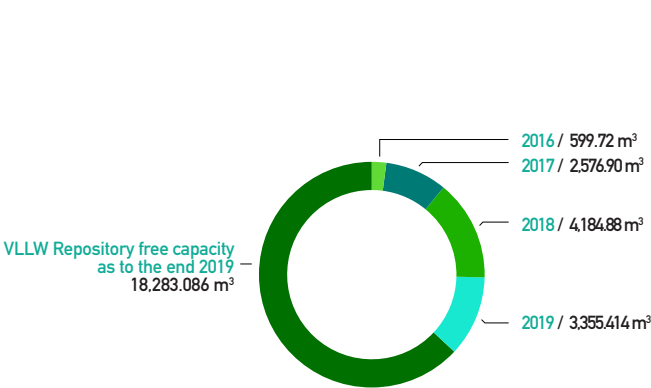


### Overview of NRWR Capacity Occupation as to 31 December 2019



The total NRWR capacity  
10,800 fibre concrete containers

### Overview of VLLW Repository Capacity Occupation as to 31 December 2019



The total VLLW Repository capacity  
29,000 m³

## IRAW AND RMUO MANAGEMENT

JAVYS, a. s., is an organization authorized to manage emitters and radioactive waste of unknown origin, unused emitters and radioactive materials. In the year 2019, 8 captures of sources of ionizing radiation of unknown origin were performed, representing, for example, parts of agricultural and military equipment, an emitter in a protective packing, uranyl acetate, or other forms of ionizing radiation emitters. From their contamination point of view, radionuclides  $^{60}\text{Co}$  (Cobalt),  $^{137}\text{Cs}$  (Caesium),  $^{226}\text{Ra}$  (Radium),  $^{238}\text{U}$ ,  $^{235}\text{U}$ ,  $^{234}\text{U}$  (Uranium) were especially identified. Following their identification, those radioactive materials were transported to be further managed in JAVYS, a. s., nuclear facilities, or in the IRAW and CRAM Management Facility on the Mochovce site.

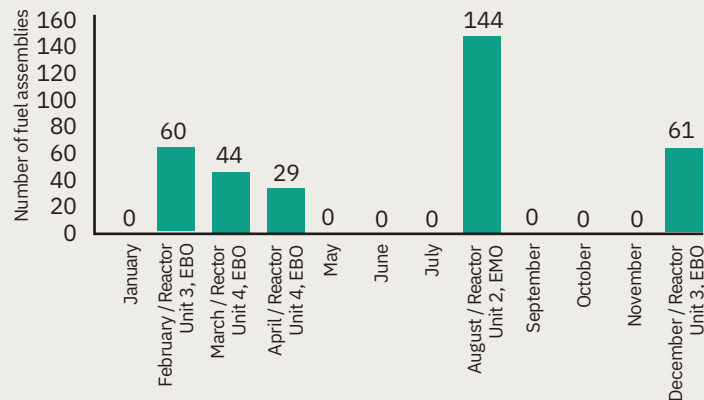
In addition, based on concluded contractual relationships with individual IRAW producers, takeovers with subsequent transports and further management of IRAW were performed in the year 2019, the total IRAW weight being 1,136.80217596 kg, while 738.782175964 kg out of that amount were radioactive materials. The following companies were the IRAW producers: SE, a. s., JAVYS, a. s., UN Martin, UPJŠ Košice, SPU Nitra. Above all, the IRAW were represented by used closed emitters, liquid scintillators, liquid and solid reference standards, contaminated laboratory waste (gloves, glass, etc.), contaminated debris and uranyl.

## 8. SPENT NUCLEAR FUEL MANAGEMENT

Following the achievement of determined parameters, spent nuclear fuel produced in reactor units of nuclear power plants in the Slovak Republic is subsequently transported and stored in the long term in the JAVYS, a. s., Interim Spent Fuel Storage nuclear facility in Jaslovské Bohunice.

In the year 2019, the total of 338 pcs of spent fuel assemblies was transported from the V2 NPP and EMO NPP nuclear facilities to the Interim Spent Fuel Storage.

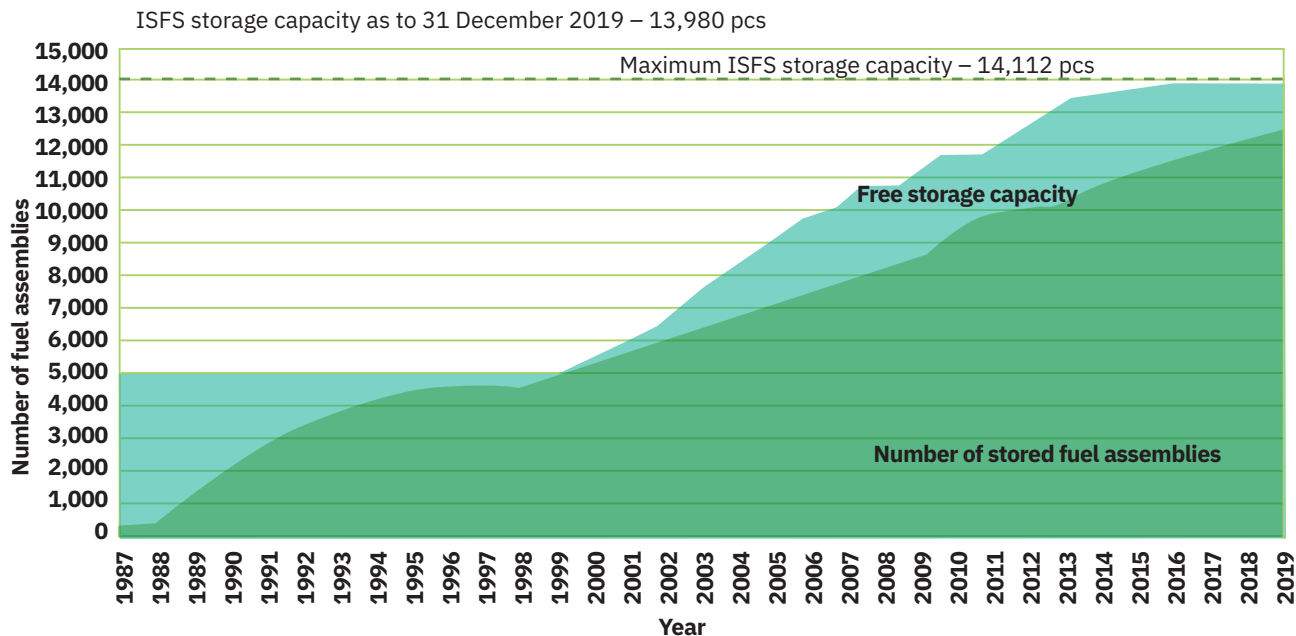
**Numbers of fuel assemblies transported in individual months of 2019**



In the year 2019, spent nuclear fuel was stored in three storage pools of the Interim Spent Fuel Storage, in magazines of KZ-48 and T-13 types. The fourth pool provided the function of a reserve pool. As to

31 December 2019, the total of 12,712 pcs of fuel assemblies were stored in ISFS, out of which 5,143 pcs originated from the V1 NPP, 5,361 pcs came from the V2 NPP and 2,208 pcs originated from EMO 1,2.

### Overview of Continuous ISFS Filling with Spent Nuclear Fuel as to 31 December 2019



As to 31 December 2019, 12,712 pcs of spent nuclear fuel were stored in the ISFS nuclear facility which represents 90.1 % filling of its maximum designed capacity. With regard to the real ISFS filling, JAVYS, a. s., has been implementing the investment project

“Completion of Construction of ISFS Storage Capacity on the Jaslovské Bohunice Site” since the year 2018, in compliance with the approved schedule. The assumed commissioning date for Spent Nuclear Fuel Storage Module 1 is scheduled for the end of the year 2022.

# 9. SAFETY

## NUCLEAR SAFETY

The compliance with the requirements for nuclear safety is a priority for JAVYS, a. s. This was declared in the policy and objectives, which are among top-level documents of the company integrated management system.

The JAVYS, a. s., Safety Policy is linked to the following tasks provided by the company:

- safe, reliable and effective operations of nuclear facilities,
- reliable and safe A1 NPP and V1 NPP decommissioning in order to free the site for industrial purposes,
- reliable and safe treatment, conditioning, storage and disposal of radioactive waste from nuclear power plants, including institutional radioactive waste and radioactive materials of unknown origin,
- reliable and safe management of spent nuclear fuel from nuclear power plants.

Requirements of legal regulations of the Slovak Republic and nuclear safety supervisory bodies were met for all nuclear facilities operated by the company on Jaslovské Bohunice and Mochovce sites. During the year 2019, the nuclear facilities were operated

in accordance with the valid and current safety documentation approved by the supervisory bodies of the Slovak Republic, without any violation of the Technical Specifications for their safe operations and decommissioning, respectively.

JAVYS, a. s., performed a nuclear safety review for the Interim Spent Fuel Storage and Radioactive Waste Processing and Treatment Technologies nuclear facilities, based on Act No. 541/2004, Coll., and Ordinance of the Nuclear Regulatory Authority of the Slovak Republic No. 33/2012, Coll., on Regular, Complex and Systematic Nuclear Safety Review of Nuclear Facilities in consideration of the current state of knowledge in the nuclear safety review area, took measures to remove deficiencies identified and to eliminate their occurrences in the future. The main objective of the nuclear safety review for the Interim Spent Fuel Storage and Radioactive Waste Processing and Treatment Technologies nuclear facilities was to verify, following 10 years of operation since the previous review, all the defined review areas from the point of view of meeting nuclear safety requirements within the scope given by Slovak legal regulations and international requirements. At present, the legal process of nuclear safety review is going on for the National Radioactive Waste Repository nuclear facility.

JAVYS, a. s., nuclear facilities operation safety assessments were performed by means of operation safety indicators in quarterly periods. The assessments achieved confirmed that professional work was performed by the staff and high reliability was shown by the technological equipment.

No safety significant operational event was identified during the assessed time period.

The total of 47 inspections was performed by NRA SR inspectors during the year 2019. Out of that:

- 22 inspections were aimed at supporting activities for JAVYS, a. s.,
- 9 inspections were performed at the V1 NPP,
- 5 inspections were performed at the A1 NPP,
- 1 inspection was performed at RW PTT,
- 4 inspections were performed at ISFS,
- 3 inspections were performed at FP LRW,
- 3 inspections were performed at NRWR,
- 1 inspection was performed at IRWS.

The inspections were focused on, e. g., checks whether nuclear safety conditions and supervisory requirements were met during the V1 NPP and A1 NPP decommissioning, RAW management within the FP LRW nuclear facility, spent nuclear fuel storage in ISFS and during RAW and nuclear material transports. Moreover, the Nuclear Safety Authority verified the licence holder's security system and staff professional training. As for the emergency preparedness area, an inspection of the Emergency Response Organization interoperability was performed during the sitewide emergency exercise, and the course of radioactive material transport emergency exercise was inspected as well.

In the year 2019, IAEA inspectors performed, in cooperation with EURATOM inspectors, 3 physical inventory checks of nuclear materials in three JAVYS, a. s., nuclear material balance areas on the Jaslovské Bohunice site, two inspections of short reporting period nuclear materials in ISFS and one inspection focused on the state of the A1 NPP decommissioning. Moreover, one IAEA technical visit was paid to the V1 NPP during which all IAEA supervisory devices were removed from the V1 NPP Reactor Hall. The Nuclear Regulatory Authority of the Slovak Republic issued the total of 64 decisions to JAVYS, a. s., in 2019, out of which the following are the most significant ones:

- Based on Decision No. 23/2019, the NRA SR issued the approval to implement the change, in compliance with Atomic Act, (2)(w), in document 13-TPP-804 „Spent Nuclear Fuel Transport from VVER-440 Reactor Units to ISFS, Spent Nuclear Fuel Storage and Handling prior to the Removal for Reprocessing“.
- Based on Decision No. 74/2019, the NRA issued the approval to implement the change, in compliance with Atomic Act, (2)(w), in document 8-INŠ-601 „Declaration of Contents of Radionuclides in RAW Processed by the Bohunice Radioactive Waste Treatment Centre prior to their Disposal in NRWR“.
- Based on Decision No. 94/2019, the NRA issued the approval to implement the change in the documentation „A1 NPP Decommissioning Plan, Stages III and IV“, approved by the Authority, within the scope of documents 9-BSP-003 FSAR – Facility to Fix Sludges into the Compaction Matrix in 200 l MEVA Barrels – Mobile facility, 9-BSP-005 – FSAR – SUZA II Fixing Facility, 9-BSP-002 FSAR for the Chrompik III Vitrification using VICHIR Line, 9-BSP-004 FSAR for the FRAGIS II Decontamination Container.
- Based on Decision No. 98/2019, the NRA issued the approval to use the construction „Low-Level RAW Disposal Facilities“ (the construction of 3<sup>rd</sup> double-row).
- Based on Decision No. 105/2019, the NRA issued the approval to implement during the V1 NPP nuclear facility decommissioning, within the scope of implementation of BIDSF D4.2 project „Dismantling of Reactor Coolant System Large Components“, part D9.3 „Construction of Pools for Wet Cutting Workplaces in the Reactor Building“ – DZM No. 5328/2018.
- Based on Decision No. 108/2019, the NRA issued the approval to implement project D4.2, part „Construction of Pools for Wet Cutting Workplaces in the Reactor Building“. The workplaces will be established to provide the fragmentation. WCW1 and WCW2

pools will be constructed as provisional structural facilities.

- Based on Decision No. 117/2019, the NRA modified part of the original Decision of the Authority No. 338/2016, changing the wording modified by Decision of the Authority No. 435/2017 „Permission to Operate the NRWR Nuclear Facility, part 1<sup>st</sup> and 2<sup>nd</sup> Double-row of Disposal Boxes for the Disposal of Low-Level RAW and partly for the Disposal of Very-Low-Level RAW, Stage I and Stage II“ into „Permission to Operate the NRWR Nuclear Facility, part 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Double-row of Disposal Boxes for the Disposal of Low-Level RAW and partly for the Disposal of Very-Low-Level RAW, Stage I and Stage II“.
- Based on decisions No. 144/2019 and No. 145/2019, the NRA SR reviewed 8-PLN-017 Emergency Transport Rules – Railway Transport of Radioactive Materials and 8-PLN-018 Emergency Transport Rules – Road Transport of Radioactive Materials.
- Based on Decision No. 176/2019, the NRA issued the approval to implement project „I00TSVD2004 – Optimization of RAW Incineration Capacities“.
- Based on Decision No. 241/2019, the NRA approved operating procedure 10-LAP-001 „Limits and Conditions for Safe Operations of RW PTT“ and 10-LAP-002 „Justifications for Limits and Conditions for Safe Operations of RW PTT“.
- Based on Decision No. 252/2019, the NRA issued the approval to implement the nuclear safety affecting change during the V1 NPP nuclear facility decommissioning, within the scope of commissioning of „V1 NPP Large Capacity Fragmentation and Decontamination Facilities“, Stage 2.
- Based on Decision No. 265/2019, the NRA issued the approval to implement the change, in compliance with Atomic Act, (2)(w), in document PP 9-TTP-831 „Inspections of Barriers at the A1 NPP“.
- Based on Decision No. 319/2019, the NRA issued the approval to implement the nuclear safety affecting change during the

V1 NPP nuclear facility decommissioning, within the scope of using the Dry Fragmentation Workplace in steam generator boxes in R002/1,2 at the V1 NPP, in compliance with document 5-TTP-272 „Dry Fragmentation Workplace in R002/1,2“.

- Based on Decision No. 429/2019, the NRA issued the approval to implement the nuclear safety affecting change during the V1 NPP nuclear facility decommissioning, within the scope of the Dry Fragmentation Workplace commissioning and use in the former Machine Hall.

In the year 2019, five operational events were registered, out of which, no one was reportable to supervisory authorities, within the meaning of the Atomic Act. In compliance with the International Nuclear Event Scale (INES), all the events were classified as ‘No Safety Significance’ events (i. e., ‘Below INES Scale’).

## RADIATION PROTECTION

All the activities important from the radiation protection point of view are subject to the dose load optimization within the meaning of legal regulations of the Slovak Republic in force and of the JAVYS, a. s., internal quality assurance system prior to their permission, during their implementation and after their completion.

The systematic monitoring of radiation characteristics of the working environment, both the operational and official monitoring of doses received and, at the same time, the compliance with radiation protection rules and the ALARA principle during the implementation of activities, were performed in the working environment of radiation controlled areas of the JAVYS, a. s., nuclear facilities in 2019 as well. The maximum individual effective dose that did not exceed the determined annual limits (20 mSv) is one of the strictly monitored indicators of the radiation protection level for persons working in the JAVYS, a. s., radiation controlled areas.

## Maximum Individual Effective Dose E (mSv) in the Year 2019

JAVYS, a. s.	CA-A	% of the limit	CA-V	% of the limit	CA-U	% of the limit	CA-R	% of the limit
JAVYS, a. s., staff members	8.501	42.51	0.283	1.42	2.65	13.25	0.00	0.00
Contractors	11.429	57.15	4.192	20.96	0.365	1.83	0.00	0.00

### Explanatory notes:

*CA-A the radiation controlled areas in premises of the A1 NPP, being decommissioned, and in premises containing RAW processing and spent nuclear fuel storage technologies in Jaslovské Bohunice*

*CA-V the radiation controlled area of the V1 NPP in Jaslovské Bohunice, being decommissioned*

*CA-U the radiation controlled areas of NRWR, FP LRW and VLLW Repository in Mochovce*

*CA-R the radiation controlled area of IRAW and CRAM in Mochovce*

Inspection activities in the radiation protection area were performed by the Public Health Authority of the Slovak Republic (PHA SR). At the V1 NPP, the inspections were aimed, in particular, at the implementation of the Stage 2 decommissioning projects (D4.4A project „Dismantling of Systems in Active Auxiliary Building – Stage I“, D4.2 project „Dismantling of Reactor Coolant System Large Components“, D4.1 project „Modification of the Plant and Installation of New Equipment“, D4.4B project „Dismantling of Systems in V1 NPP Controlled Area“, B6.6A project „Support Radiological Characterization for Decommissioning“). At the same time, the PHA SR also verified the adherence to radiation protection rules in the radiation controlled areas and the system of material exemption from the administrative supervision. Inspections performed in RW PTT, A1 NPP and ISFS nuclear facilities were related, above all, to status checks in relation to requests being prepared and to the review of facts declared in the work programmes that were discussed by the ALARA Commission and submitted to PHA SR for approval. During the inspections performed in RW PTT and FP LRW nuclear facilities, the PHA SR assessed equipment calibrations, and the radiation controlled area access and modes.

Inspections regarding the impact of the operation on radiation burden of the population are monitored by JAVYS, a. s., through the Laboratories of Radiation Supervision of Surroundings in Trnava and in Levice, belonging to Slovenské elektrárne, a. s. The laboratories monitor the surroundings by means of a network of monitoring stations connected to three circuits in the surroundings of nuclear facilities on the Jaslovské Bohunice site and by means of laboratory measurements of samples taken from the environment. Results of sample measurements and analyses of almost 1,500 samples of air, soil, water, vegetation and agricultural products for the year 2019 prove a minimum impact of operated and decommissioned nuclear facilities on the surroundings. The impact of the operation on dose burden of the population is assessed by JAVYS, a. s., continuously on a quarterly basis using a special programme. The programme, approved by the state supervisory authority, PHA SR, applies internationally accepted models of dissipation of radioactive substances, takes into account local conditions and uses current statistical data. All gaseous and liquid discharges from JAVYS, a. s., nuclear facilities and the real meteorological situation enter the programme. The maximum calculated values of the individual effective dose E for the year 2019 are on the level of 0.032 % (10.3 nSv), for the populated area, and on the level of 0.064 % (20.6 nSv), for the unpopulated area, out of the annual limit of exposure per a representative individual. The calculated values of individual effective doses are on a level multiple times lower than the level of radiation burden of the population due to the natural background and medical diagnostic examinations.

## EMERGENCY PLANNING

Within the meaning of requirements specified by the Atomic Act and legal regulations related to the emergency planning area, a separate JAVYS Emergency Response Organization is established in JAVYS, a. s., that is competent to settle extraordinary events in nuclear facilities and during radioactive material transports provided by JAVYS, a. s., licence holder. In the year 2019, staff emergency drills and exercises were held regularly in all the nuclear facilities and during radioactive material transports (in total, 62 emergency drills and exercises took place). The state of JAVYS, a. s., emergency preparedness on the Jaslovské Bohunice site was verified by the sitewide emergency exercise CÉDER 2019 (CEDAR 2019) that was aimed at the settlement of extraordinary events in nuclear facilities. All JAVYS, a. s., staff members and all persons staying in the territory of the company nuclear facilities on the Jaslovské Bohunice site, including contractor staff members, were involved in the drills made within the sitewide emergency exercise. During shift staff emergency exercises and professional group drills, the Emergency Response Organization proved its functionality.

The following new emergency transport rules were approved by the Ministry of Transport and Construction for JAVYS, a. s., in December 2019:

- 8-PLN-017 – Emergency Transport Rules – Railway Transport of Radioactive Materials,
- 8-PLN-018 – Emergency Transport Rules – Road Transport of Radioactive Materials.

These new emergency transport rules replaced the original document 8-PLN-012 Emergency Transport Rules that was common to both the kinds of transport.

The following sizes of threat areas are approved by the Nuclear Regulatory Authority of the Slovak Republic for JAVYS, a. s., nuclear facilities at present:

- the common threat area for the V1 NPP, A1 NPP, RW PTT and ISFS nuclear facilities on the Bohunice site delimited by the barrier of the guarded area of JAVYS, a. s., nuclear facilities, approved by Decision of NRA SR No. 719/2014, of 26 September 2014,
- the threat area for NRWR on the Mochovce site as a territory bounded by the nuclear facility boundary, delimited by the barrier of the guarded area, i.e. the fencing of NRWR on the Mochovce site, approved by Decision of NRA SR No. 66/2017 of 20 February 2017,
- the threat area for FP LRW on the Mochovce site determined as a territory bounded by the site boundary of nuclear facilities belonging to the Slovenské elektrárne, a.s., Nuclear Power Plant Mochovce, plant, delimited by the barrier of the guarded area of this nuclear facility, approved by Decision of NRA SR No. 5/2007 of 8 January 2007,
- the threat area size delimitation of the IRWS nuclear facility, based on Decision of NRA SR No. 381/2017 that entered into force and became executable on 10 October 2017.

Analyses, based on which the threat areas were determined, have shown that the operation or decommissioning of JAVYS, a. s., nuclear facilities on the Jaslovské Bohunice and Mochovce sites, respectively, show a negligible impact on the population and the environment in the surroundings of these facilities.



## OCCUPATIONAL HEALTH AND SAFETY

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The occupational health and safety in JAVYS, a. s., was provided in compliance with relevant provisions of Act of the National Council of the Slovak Republic (NC SR) No. 311/2001, Coll., Labour Code, as amended, and with Act of NC SR No. 124/2006, Coll., on Occupational Health and Safety and on Amendments to Certain Acts and further related regulations. Inspections of meeting requirements resulting from the above-mentioned acts and legal regulations were performed by Safety-Technical Service Technicians.

In the year 2019, three accidents at work occurred in JAVYS, a. s., out of which one registered accident at work and two recorded accidents at work.

Workplaces involving a risk factor – noise, vibrations, aerosols and radioactive radiation – are identified in JAVYS, a. s., based on decisions by the Regional Office of the Public Health Authority. 566 staff members worked at the above-mentioned workplaces, out of which 78 were women. Staff members at workplaces where working activities are performed including the increased danger to health resulting from the working conditions are paid increased attention. The staff members are invited regularly to medical examinations aimed at particular risk factors. The prevention of accidents and occupational diseases on at-risk workplaces is ensured by means of allocating appropriate personal protective equipment within the meaning of operational orders and risk judgements.

During the year 2019, the Regional Public Health Authority in Levice performed a state health supervision inspection in

JAVYS, a. s., aimed to inspect working conditions and working environment at the National RAW Repository workplace in Mochovce.

In the year 2019, JAVYS, a. s., obtained an internationally recognized certificate in compliance with standard ISO 45001:2018 for the Occupational Health and Safety Management System granted by DNV GL company. The acquisition of the certificate confirms that the JAVYS, a. s., management process in the occupational health and safety area meets high criteria and requirements specified by the mentioned standard.

## FIRE PROTECTION

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No fire was recorded in JAVYS, a. s., in the year 2019. In JAVYS, a. s., tasks in the fire protection area are provided by staff members possessing their professional competences – Fire Protection Technicians.

In the year 2019, 452 preventive fire protection inspections were performed. The inspections were aimed at the adherence to fire protection regulations within all the company premises and works performed on the basis of written orders – ‘Performance of Work Including Increased Fire Risk’ were inspected.

During the preventive fire protection inspections, increased attention was paid to premises where decommissioning or demolition works were performed.

# 10. ENVIRONMENTAL PROTECTION

Environmental protection is an important part of all activities performed within JAVYS, a. s., whether by its own employees or by contractors. In a complex manner, environmental protection is included as a subprocess in the Safety process within the integrated management system, i. e., all legal requirements for individual environmental protection areas (water, air, waste, protection of nature and country) are continually monitored and incorporated in the internal company documentation. Conditions imposed on activities performed by contractors are determined in the JAVYS, a. s., Safety and Technical Terms that are a part of contracts. Requirements specified by standard ISO 14001:2015 „Environmental Management System“ are applied in practice and their appropriate implementation and adherence are verified by DNV GL auditor company. In the year 2019, a recertification audit was performed and JAVYS, a. s., received a certificate again which is a document that the environmental management system is functional and efficient and, at the same time, it proves appropriate environmental performance by means of managing impacts of company activities and services on the environment in compliance with the Environmental Policy and Environmental Objectives. During performed audits and inspections by supervisory bodies, no non-conformities were identified in any of the environmental protection areas which is also ensured by continuous improvements in environmental awareness of all employees and contractors by means of regular training courses. Within decisions issued covering the environmental protection area, JAVYS, a. s., has met, or is meeting, all the imposed conditions, respectively.

During the year 2019, all limited indicators were adhered to, specified by decisions issued by relevant supervisory and state bodies for individual areas (concentration and balance indicators of pollution in discharged waste waters, emissions of polluting substances into the environment, amounts of dangerous waste).

## WATER MANAGEMENT SYSTEM

In all, 47,290 m<sup>3</sup> of drinking water were consumed in all the monitored JAVYS, a. s., plants (Jaslovské Bohunice, Bratislava, Mochovce sites) in the year 2019. The drinking water consumption was lower by 6,852 m<sup>3</sup> in 2019 than in 2018 which represents a decrease by 12.7 %, compared to the year 2018. Compared to the year 2018, the consumption of cooling water increased by 4 % and achieved the level of 301,695 m<sup>3</sup>.

In the year 2019, 452,207 m<sup>3</sup> of wastewater were discharged into the Váh river recipient, which is an increase by 3 % compared to the previous year. Wastewater supervision analyses performed in an accredited laboratory confirmed that all the discharge water quality indicators were below borders of determined limits specified by state and supervisory bodies.

In the year 2019, the cost of the water management system amounting to €133,813.78 only represents an increase by 2.0 %, compared to the year 2018.

No regular inspection was performed by the Slovak Environmental Inspectorate in Nitra, the Water Protection Inspection Department, in JAVYS, a. s., in the year 2019.

## AIR PROTECTION

In the year 2019, JAVYS, a. s., operated air pollution sources in all categories – 1 large source, 5 medium sources and 2 small sources. A large air pollution source is represented by the Start-up and Reserve Boiler Plant that was in operation in the first half of the year 2019. In the second half of the year 2019, the Boiler Plant category was changed to a medium air pollution source due to a decrease in the source capacity whereby JAVYS, a. s., was excluded from the field of application of Act No. 39/2013, Coll., on „Integrated Prevention and Supervision of Environmental Pollution“. On 24 January 2019, staff members of the Slovak Environmental Inspectorate, the Environmental Inspectorate Bratislava, the permanent infrastructure Nitra, performed a local inspection round associated with verbal proceedings related to an application to cancel the Integrated Pollution Inspection Permission (IPOP) for a large pollution source – the Start-up and Reserve Boiler Plant (SRBP). The result of the whole proceeding process was that the IPOP Permission was cancelled for that large air pollution source due to a decrease in the source capacity below the threshold level of 50 MW after the District Office in Trnava had issued a decision to put the existing medium source to trial operation, based on changes implemented (Reserve Boiler Plant).

The total emissions released from all the air pollution sources were as follows: particulate pollutants – 38.28 kg,  $\text{SO}_2$  – 0.23 kg,  $\text{NO}_x$  – 44.54 kg, CO – 12.91 kg and  $\text{C}_{\text{org}}$  – 1.93 kg. In the year 2019, 45 t of greenhouse gases ( $\text{CO}_2$ ) were released into the air due to the operation of facilities combusting gaseous and liquid fuels, which was by 3 t more than in the year 2018.

In the year 2019, the air pollution sources were only operated in the emergency mode. All the specified limits and conditions were complied with during the operation of the above-mentioned air pollution sources during the year 2019.

## WASTE MANAGEMENT SYSTEM

In the year 2019, wastes classified in categories 'other', 'hazardous', 'municipal', and 'biodegradable' were produced in JAVYS, a. s. Both the disposal and recovery of wastes produced during activities that are not covered by BIDSF projects, fall within the JAVYS, a. s., scope of competence. In case of contractors' activities, both the disposal and recovery of such wastes are provided contractually with the relevant contractor.

The total amount of non-active wastes produced within BIDSF projects, as well as off them, in the year 2019 amounted to 175.151 t. Out of that amount, 63.079 t (36.01 %) were recovered and 112.072 t (63.99 %) were disposed.

The total amount of produced wastes was made up of the following categories:

- other waste in the amount of 82.74 t off BIDSF projects and 35.42 t within BIDSF projects,
- hazardous waste in the amount of 6.891 t off BIDSF projects and 0 t within BIDSF projects,
- municipal and biodegradable wastes in the amount of 50.01 t.

Compared to the year 2018, the waste production is markedly lower (by 81.31 %), depending on activities implemented during the A1 NPP and V1 NPP decommissioning. In the year 2019, costs incurred to dispose and recover waste produced off BIDSF projects represented the amount of €46,279.14. Sales of metallic recoverable materials, electrical waste, paper and cardboard packages were provided on the basis of relevant service contracts in the year 2019. Revenues of the metallic recoverable materials represented €518,047.92 and revenues of other recoverable waste amounted to €261.6.

The waste management was implemented in compliance with legal requirements of the Slovak Republic and internal company procedures in the year 2019.

## ENVIRONMENTAL IMPACT ASSESSMENT

Requirements of Act of the National Council of the Slovak Republic No. 24/2006, Coll., „on Environmental Impact Assessment and on Amendments to Several Acts“, as amended, that are implemented into guideline BZ/OŽ/SM-04 „Environmental Impact Assessment (EIA)“, are applied in the environmental impact assessment.

During the year 2018, the assessment process was commenced in compliance with Act No. 24/2006, Coll., for the proposed activity „Optimization of Processing Capacities for the JAVYS, a. s., Radioactive Waste Processing and Treatment Technologies on the Jaslovské Bohunice Site“. The environmental impact assessment process for the proposed activity continued in the year 2019, due to a repeated public hearing, it has not been completed in 2019.

In the year 2019, examination proceedings were performed for the following activities:

- BIDSF D4.7 “V1 NPP Decommissioning, Stage 2 – Modification of Planned Final System of Buildings within the Framework of D4.7 Project Implementation“,
- Optimization of incineration capacities for the Radioactive Waste Processing and Treatment Technologies on the Jaslovské Bohunice Site.

The implementation and operation of activities that were assessed in compliance with the Act on the Environmental Impact Assessment is only possible on condition that compliance is demonstrated between the implementation of the activities and the final position resulting from the assessment process or the decision issued during the examination proceedings. During the year 2019, written evaluations were prepared in relation to the meeting to the following permission proceedings:

1. „Expansion of the National RAW Repository in Mochovce for the Disposal of Low-Level RAW and Construction of Very-Low-Level RAW Disposal Facility“ within the framework of „3<sup>rd</sup> Double-Row of the Low-Level Radioactive Waste Disposal Facility“ project.
2. BIDSF D4.1 „Modification of the Power Plant and Installation of New Equipment“
  - a) DZM No. 5291/2017 „Modification of Chilled Water and Demineralized Water Supply Systems for ISFS“,
  - b) DZM No. 5294/2017 „Construction of Tapping Plant in ISFS and Installation of Pipeline Routes for the Tapping of Regenerative and Decontamination Solutions in ISFS“.
3. BIDSF D4.2 „Dismantling of Reactor Coolant System Large Components“
  - a) DZM No. 5324/2018 „Gas Storehouse for Steam Generator (SG) and Pressurizer (PR) Fragmentation“,
  - b) DZM No. 5328/2018 „Construction of Pools for Wet Cutting Workplaces in the Reactor Building“.

The Ministry of Environment of the Slovak Republic confirmed compliance between permission proceedings and Act No. 24/2006, Coll., and decisions issued. In connection with the implementation of reviewed activities, it is the obligation of JAVYS, a. s., to perform post-project analyses. Based on a task included in a letter by the Nuclear Regulatory Authority of the Slovak Republic No. 2019/06516, a complete material „Post-Project Analyses for the Year 2018“ was submitted to the Authority in the year 2019, for all of the reviewed JAVYS, a. s., activities. It follows from results of the post-project analyses and from evaluations covering the meeting of conditions specified in final positions of the Ministry of Environment of the Slovak Republic that all the assessed activities are performed by JAVYS, a. s., in compliance with the Act on the Environmental Impact Assessment and with decisions issued in compliance with the Act.

## 11. INTERNATIONAL ACTIVITIES

In the year 2019, JAVYS, joint stock company (JAVYS, a. s.), continued the implementation of acquired commercial projects, as well as the successful extension of its commercial activities. In the year 2019, two contracts were concluded amounting to €2.13 mil.

During the year 2019, activities were implemented on the basis of seven signed contracts. Radioactive waste (RAW) from Czech Dukovany and Temelín NPPs were processed by JAVYS, a. s., for ČEZ, a. s., using high-pressure compacting. A significant progress was made within the project covering the processing of saturated sorbents and sludges from the Italian Caorso NPP. Following active complex tests, the line providing the preconditioning of solidified sorbents prior to their incineration was commissioned. 49 tons of RAW were imported for that purpose. Subsequently, more than 40 tons of saturated sorbents and sludges were processed. The project is implemented within a consortium with the Italian company Ansaldo New Clear. Following the delivery of final versions of operational documentation, JAVYS, a. s., participated in the final consenting of the complete documentation within the project covering consultancy services to the construction of low-level and medium-level radioactive wastes in Iraq. The project was implemented in cooperation with two German companies Nukem Technologies GmbH and BGE Technology GmbH. For DMS, Ltd, (DMS, spol. s r. o.), JAVYS, a. s., provides support to technical and emergency groups during

fresh nuclear fuel imports to the Slovak Republic for operating nuclear power plants. In compliance with the contractual relation with the Russian company JSC Isotope, JAVYS, a. s., provides support during the transit of sources of ionizing radiation through Slovakia. The project for the Bulgarian company SERAW, related to the proposal to modify and modernize RAW processing lines at the Kozloduj NPP, is implemented within a consortium with the Spanish company Ingeniería y Dirección de Obras y Montaje and the Bulgarian company ATP Atomtoploproekt, Ltd.

The three-year project for the European Commission progresses successfully, aimed at consultancy services in chemical, biological and radioactive wastes management areas for ten countries of the Eastern and Southern Europe. The project is implemented within a consortium with 6 foreign companies (Sustainable Criminal Justice Solutions CIC Limited, Inštitút pre medzinárodnú bezpečnosť a krízové riadenie (Institute for International Safety and Crisis Management), Public Health England, The Polish Military Institute of Chemistry and Radiometry, VERTIC and Cranfield University). An institutional RAW processing project began to be implemented for NUCLECO, S.p.A., company.

The financial volume of contracted JAVYS, a. s., performance within the implemented projects amounts to €40.6 mil., and the total value of the projects is €57.1 mil. During the monitored time period, the Memorandum of Understanding was signed

with Westinghouse Electric Spain S.A.U., within the meaning of the approved JAVYS, a. s., Commercial Activities Preparation and Implementation Strategy, and memoranda with the following companies are prepared: Škoda Praha, a. s., Lesedi Nuclear Services (Pty) Ltd., BGE Technology GmbH and CNNC.

In the year 2019, Amendment 1 was concluded with the German company EZAG with which JAVYS, a. s., concluded a contract to process institutional RAW. Following the evaluation of a tender from the consortium BGE Technology GmbH and JAVYS, a. s., on 24 October 2019 a contract was concluded with the International Atomic Energy Agency to develop a preliminary feasibility study for the institutional RAW disposal in Moldavia.

The signed new contracts represent not only a benefit of an increase in JAVYS, a. s., revenues, but also references for the future and for professional development opportunities for staff members participating in the performance of the contracts. In the year 2019, revenues from international activities amounted to €2.2 mil. In addition to the demand by foreign companies after services currently offered by JAVYS, a. s., there was an increasing trend in additional services in the RAW management area. Thus, the expansion of services offered represents another possibility for the company to grow and establish itself on the market in the important nuclear industry segment.

## 12. ECONOMIC RESULTS

### REPORT ON BUSINESS ACTIVITIES AND BALANCE OF ASSETS

Jadrová a vyradovacia spoločnosť, a. s. (JAVYS, a. s.), is a joint stock company with the 100 % state ownership that exercises its shareholder rights by means of the Ministry of Economy of the Slovak Republic. The JAVYS, a. s., company mission is to perform activities within the meaning of the approved National Policy and National Programme of Spent Nuclear Fuel (SNF) and Radioactive Waste (RAW) Management, namely to decommission nuclear power plants A1 NPP and V1 NPP in a safe, reliable and cost-effective manner, to provide nuclear services in areas of spent nuclear fuel and radioactive waste management by means of optimum use of existing RW PTT processing capacities and to provide related servicing. JAVYS, a. s., provides third parties with additional services resulting from servicing and rental contracts concluded.

Since July 2016, JAVYS, a. s., has been included in the public administration sector and its business activities are also affected by relevant legal regulations applicable to this area.

As to 31 December 2019, the company achieved the pre-tax economic result amounting to €7,417,608 and the economic result after tax amounting to €4,605,326. The operational economic result was reported on the level of €11, 513, 897.

In the year 2019, the core JAVYS, a. s., activities were covered by funding provided from the National Nuclear Fund (NNF), by funding provided from the BIDSF fund, SIEA and from revenues and returns achieved by commercial activities.

Within the meaning of the contract concluded with the NNF on the provision of NNF funds in the year 2019, the maximum and limiting amount of funds for individual requests was determined to be €66,871,485, out of which the sum of €63,806,742 to cover operational costs and the sum of €3,064,743 to cover investment costs. Actual costs incurred by JAVYS, a. s., to meet individual requests in the year 2019 amounted to €61,120,582, out of which operational costs amounted to €58,129,650 and investment costs amounted to €2,990,932.

On the basis of procedures resulting from public administration budget rules, JAVYS, a. s., received NNF funds amounting in total to €62,767,895 in the year 2019, out of which the sum of €2,005,154 to cover costs incurred in the year 2018. A part of JAVYS, a. s., costs amounting to €1,322,077 incurred in the year 2019 will be reimbursed using NNF budget funds in the year 2020.

Within the framework of drawing BIDSF funds for projects related to the V1 NPP decommissioning, the company received funds amounting in total to €44,283,067.33 in the year 2019, out of which €40,002,215.55 to cover the operational part and €4,280,851.78 to cover the investment part. Out of that, funds to implement the decommissioning program using human resources available at the V1 NPP for BIDSF D0 project „Implementation of Decommissioning Program Using Human Resources Available at the V1 NPP“ amounted to €7,360,852, out of which €7,236,027 to cover the operational part and €124,825 to cover the investment part.

Company revenues and returns originating from commercial

activities constitute revenues and returns from the commercial management of RAW and SNF, other revenues from servicing and rental contracts concluded and revenues from sales of recoverable surplus property originating from the A1 NPP and V1 NPP decommissioning. The company reported total revenues and returns for the year 2019 originating from its own performance amounting to €24,746,366, out of which direct revenues for RAW transport, storage and processing and for SNF management for the V1 NPP, V2 NPP and EMO1,2 NPP amounted to €16,728,996 and services related to IRAW management provided to third parties amounted to €382,455. Reported returns originating from the processing of sludges from V1 NPP Bioclar sludge fields amounted to €499,674. The company achieved returns from the activation of material and long-term tangible assets amounting to €2,734,597, from revenues from sales of recoverable surplus property originating from the A1 NPP and V1 NPP decommissioning amounting to €34,860 and from revenues originating from rental and other contracts and other JAVYS, a. s., performance amounting to €4,370,584.

In the year 2019, the company intermediate consumption costs were reported amounting to €68,030,986. Actual personnel costs were reported amounting to €32,573,426 (out of which the amount of €29,129,567 constituted salary costs and the amount of €3,443,859 corresponded to the settlement of provisions for employee benefits from the year 2018 and to the completion of provisions for future employee benefits), the accounting depreciation of long-term tangible assets and value adjustments for the long-term tangible assets amounted to €18,872,239 (total depreciation of long-term tangible assets and long-term intangible assets amounted to €23,429,056 and value adjustments for assets amounted to €4,556,817).

As to 31 December 2019, the company kept records of total assets amounting to €1,338,635,337. Out of that, long-term intangible assets amounted to €873,642 and company long-term tangible assets amounted to €156,213,422. The long-term financial assets were reported amounting to €106,066,439. These assets are related to the capital injection to JESS company that was founded in 2009 as a joint venture of JAVYS, a. s., and ČEZ Bohunice. As to 31 December 2019, the value of financial assets was revalued due to a deduction from JESS company equity by €951,757.

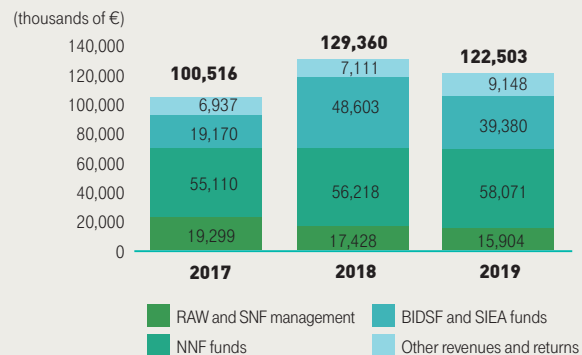
Provisions set up for the A1 NPP and V1 NPP decommissioning and disposal, provisions set up for the decommissioning and disposal of non-power engineering equipment and provisions set up for future employee benefits (retirement and leaving allowances, within the meaning of the Collective Bargaining Agreement) were the largest items in company liabilities. As to 31 December 2019, provisions amounting, in total, to €985,787,386 were reported. Provisions set up for the A1 NPP and V1 NPP decommissioning and disposal amounting to €836,308,435 represent a part of those provisions. That part of the provisions is covered by claims against the NNF and BIDSF.

As to 31 December 2019, the company equity value achieved the amount of €218,399,136 which represents 16.32 % of the total company assets.

Economic results achieved are stated in the financial statements audited by an independent auditor, without any reservations.

## Structure of Operational Revenues and Returns by Financial Envelope Sources

	thousands of €		
	2017	2018	2019
RAW and SNF management	19,299	17,428	15,904
NNF funds	55,110	56,218	58,071
BIDSF and SIEA funds	19,170	48,603	39,380
Other revenues and returns	6,937	7,111	9,148
<b>Total</b>	<b>100,516</b>	<b>129,360</b>	<b>122,503</b>



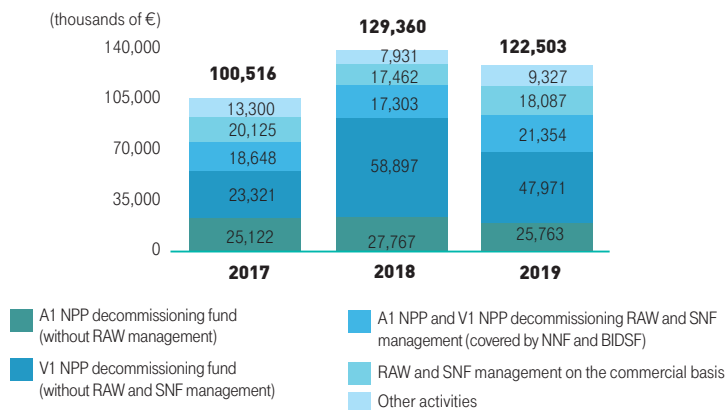


## Structure of Operational Revenues and Returns by Activities

The NNF funds also include funds provided to reimburse costs of A1 NPP and V1 NPP decommissioning RAW management and V1 NPP SNF storage costs.

thousands of €

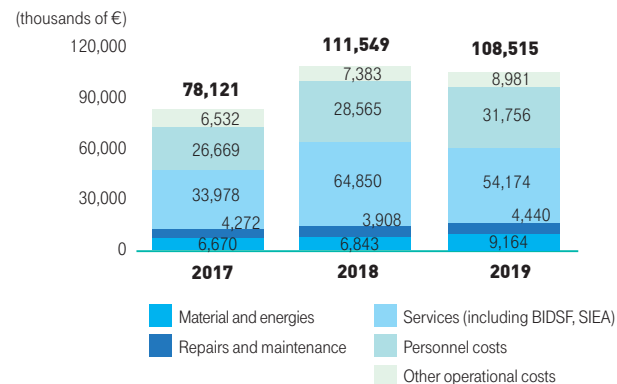
	2017	2018	2019
A1 NPP decommissioning funds (without RAW management)	25,122	27,767	25,763
V1 NPP decommissioning funds (without RAW and SNF management)	23,321	58,897	47,971
A1 NPP and V1 NPP decommissioning RAW and SNF management (cov. by NNF and BIDSF)	18,648	17,303	21,354
RAW and SNF management on the commercial basis	20,125	17,462	18,087
Other activities	13,300	7,931	9,327
<b>Total</b>	<b>100,516</b>	<b>129,360</b>	<b>122,503</b>



## Structure of Operational Costs

thousands of €

	2017	2018	2019
Material and energies	6,670	6,843	9,164
Repairs and maintenance	4,272	3,908	4,440
Services (including BIDSF, SIEA)	33,978	64,850	54,174
Personnel costs	26,669	28,565	31,756
Other operational costs	6,532	7,383	8,981
<b>Total</b>	<b>78,121</b>	<b>111,549</b>	<b>108,515</b>

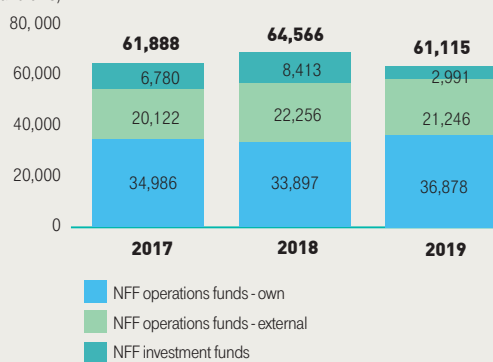


## NNF Funds Absorption

thousands of €

	2017	2018	2019
NFF operations funds - own	34,986	33,897	36,878
NFF operations funds - external	20,122	22,256	21,246
NFF investment funds	6,780	8,413	2,991
<b>Total</b>	<b>61,888</b>	<b>64,566</b>	<b>61,115</b>

(thousand of €)

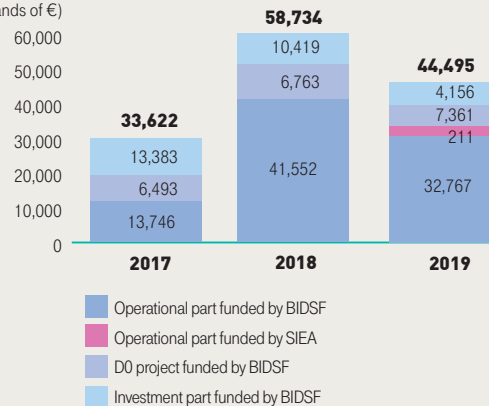


## BIDSF and SIEA Funds Absorption

thousands of €

	2017	2018	2019
Operational part funded by BIDSF	13,746	41,552	32,767
Operational part funded by SIEA	0	0	211
D0 project funded by BIDSF	6,493	6,763	7,361
Investment part funded by BIDSF	13,383	10,419	4,156
<b>Total</b>	<b>33,622</b>	<b>58,734</b>	<b>44,495</b>

(thousands of €)



## PROCUREMENT

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The 2019 Yearly Public Procurement Plan that summarized requirements specified by professional departments to provide procurement of goods, services and works comprised, as amended by updates, 151 items with an assumed value of €177.6 mil., excluding VAT.

In the year 2019, the total of 243 contracts were concluded, resulting from contract awarding procedures in compliance with the Public Procurement Act No. 343/2015, Coll., or from procedures specified by the JAVYS, a. s., internal guideline. The total volume of contracts concluded nearly amounted to €34.6 mil., excluding VAT. More than a half of the mentioned sum (€19.5 mil., excluding VAT) was represented by the contract to implement D4.4C.01 subproject Dismantling of Systems in V1 NPP Controlled Area – Part 2, implemented within the framework of the V1 NPP decommissioning.

From the commodity point of view, the highest number of contracts were concluded for deliveries of goods (almost 60 %), followed by contracts to provide services (35 %) and contracts to perform construction works (5 %). However, from the point of view of the total value (the sum of the contract price), contracts to provide services dominated unambiguously with the share of more than 80 %. According to the kind of cost, contracts whose subject matter represents operational cost (88 %) predominated in number among the contracts concluded in the year 2019, the remaining part being investment projects (nearly 5 %) and contracts to deliver investment assets not included in the investment projects (IMNIP) (7 %).

## TRADE AND SERVICES

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The active JAVYS, a. s., business was oriented, above all, to the following areas in the year 2019:

- **Provision of services in the radioactive waste and spent nuclear fuel management areas**

The provision of services in the radioactive waste transport, processing and storage and spent nuclear fuel management areas is, above all, the subject of the business relationship with SE, a. s., and ČEZ, a. s., companies.

- **Provision of services and other activities necessary to ensure nuclear safety, radiation safety and operational reliability**

JAVYS, a. s., provides services necessary to ensure safe operations of nuclear power plants and are related, above all, to staff training for nuclear power engineering equipment, personal health physics and radiation protection, calibrations of instruments, services related to the joint use of equipment, services in the emergency planning and preparedness area, transport services, steam supply and leasing of non-residential premises and equipment to SE, a. s. and other companies.

- **Provision of rentals of residential and non-residential premises and related services**

The rentals of immovable property and non-residential premises is provided on the commercial basis, especially to present suppliers of works and services for JAVYS, a. s., but also to entities having no supply relationship to JAVYS, a. s.

The rented immovable property is used, above all, as offices, changing rooms, storage rooms, assembly halls, manufacturing plants, apartments, or grounds and areas are rented for parking purposes, respectively.

● **Provision of other services and sales of surplus property**  
JAVYS, a. s., also provides other services within the framework of its business activities, namely, above all: institutional radioactive waste takeovers, transports, processing and storage, the joint use of the railway siding, the provision of training courses and consultancy, health physics services, demineralized water supply, water supply and drainage fees, heat, electric power, the provision of personal protective equipment, etc.

Sales of surplus and non-utilisable property were also a source of revenues. In the year 2019, 7 sale cases of recoverable materials, surplus property and surplus stock were accomplished (completed), bringing revenues amounting, in total, to €34,861 excluding VAT. Total revenues from the main business activities amounted to €21,976,909, excluding VAT, in the year 2019. Out of that, revenues from RAW and SNF management services accounted approximately for 82 % and revenues from other services accounted for 18 %.

## FINANCIAL STATEMENTS

Úč POD

Annex No.1 to Decree No. MF/23377/2014-74

### FINANCIAL STATEMENTS

of Enterprises in the Double-Entry Bookkeeping System

Prepared as at **31.12.2019**

**Figures are rounded on the right, other data are written from the left. Unfilled lines remain blank.**  
Data are filled in using block letters (as shown below) by a typewriter or a printer machine in black or dark blue.

**A B C D E F G H I J K L M N O P Q R S T U V X Y Z** 0 1 2 3 4 5 6 7 8 9

<b>Tax Registration Number</b> 2 0 2 2 0 3 6 5 9 9 <b>Identification</b> 3 5 9 4 6 0 2 4 <b>SK NACE</b> 3 8 . 2 2 . 0	<b>Financial Statements Reporting Entity</b> <input checked="" type="checkbox"/> Ordinary <input type="checkbox"/> Small <input type="checkbox"/> Extraordinary <input checked="" type="checkbox"/> Large <input type="checkbox"/> Interim (Mark with X)	<b>Month Year</b> For the Period From 0 1 2 0 1 9 To 1 2 2 0 1 9 Immediately-Preceding Period From 0 1 2 0 1 8 To 1 2 2 0 1 8
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**Accompanying Parts of Financial Statements**

☒ Balance Sheet (Úč POD 1-01) (in whole Euros)
 ☒ Income Statement (Úč POD 2-01) (in whole Euros)
 ☒ Notes (Úč POD 3-01) (in whole Euros)

**Business Name (Name) of the Reporting Entity**  
 J a d r o v á a v y r a d' o v a c i a s p o l o č n o s t', a . s .

**Seat of the Reporting Entity**

Street **T o m á š i k o v a** Number **2 2**

Postal Code **8 2 1 0 2** Municipality **B r a t i s l a v a**

Commercial Register and Number of Entry of the Company  
**B r a t i s l a v a I , o d d . S a , v l . č . : 4 6 4 9 / B**

Phone Number **0 3 3 / 5 3 1 3 2 8 4** Fax Number **0 3 3 / 5 3 1 2 4 7 2**

E-mail Address

Prepared on:  
1 3 . 0 3 . 2 0 2 0

Approved on:  
2 0 . 0 5 . 2 0 2 0

Signature of a Member of the Statutory Body of the Reporting Entity or a Natural Person Acting as a Reporting Entity:


**Records of the Tax Authority**

Place for Registration Number Presentation Stamp of the Tax Authority

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Page 1

D1C 2 0 2 2 0 3 6 5 9 9												ICO 3 5 9 4 6 0 2 4																								
Line C	Current Reporting Period																		Immediately-Preceding Reporting Period																	
	1	Gross - Part 1										Net 2								Net 3																
		Correction - Part 2																																		
01	1 6 7 8 7 7 2 5 3 8												1 3 3 8 6 3 5 3 3 7																							
	3 4 0 1 3 7 2 0 1																				1 4 0 1 2 8 8 5 4 4															
02	6 0 3 2 8 3 5 3 1												2 6 3 1 5 3 5 0 2																							
	3 4 0 1 3 0 0 2 9												2 6 9 9 1 5 6 6 2																							
03	1 7 2 4 5 1 0 7												8 7 3 6 4 2																							
	1 6 3 7 1 4 6 5																								1 6 0 0 9 9 9											
04																																				
05	1 4 2 5 4 1 7 4												3 7 9 2 2 2																							
	1 3 8 7 4 9 5 2																								1 0 3 8 8 3 2											
06	2 3 4 4 4 8 1												5 9 3 8 3																							
	2 2 8 5 0 9 8																								1 3 0 8 6 4											
07																																				
08	4 3 9 7 4 7												2 2 8 3 3 2																							
	2 1 1 4 1 5																								3 3 8 2 7 0											
09	2 0 6 7 0 5												2 0 6 7 0 5																							
																									9 3 0 3 3											
10																																				
11	4 7 9 9 7 1 9 8 5												1 5 6 2 1 3 4 2 1																							
	3 2 3 7 5 8 5 6 4																								1 6 1 2 9 6 4 6 8											
12	2 0 4 7 8 8 8												2 0 4 7 8 8 8																							
																									2 0 4 7 8 8 8											
13	1 5 2 7 6 4 0 0 6												6 5 2 7 6 1 9 9																							
	8 7 4 8 7 8 0 7																								4 9 0 5 7 7 1 7											
14	3 0 0 8 4 9 0 5 8												6 4 5 7 8 3 0 1																							
	2 3 6 2 7 0 7 5 7																								6 7 2 9 7 2 6 6											

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Balance Sheet  
UE POD - 1-01

D1C 2 0 2 2 0 3 6 5 9 9

ICO 3 5 9 4 6 0 2 4

Description a	ASSETS b	Line c	Current Reporting Period										Immediately-Preceding Reporting Period																			
			Gross - Part 1					Net 2					Net 3																			
			Correction - Part 2																													
4.	Perennial crops (I. 25) - /085, /092A/	15																														
5.	Livestock and draught animals (I. 26) - /086, /092A/	16																														
6.	Other non-current tangible assets (I. 29, I. 30, I. 32) - /089, /08X, /092A/	17											1	2	4	9	4															
7.	Non-current tangible assets in acquisition (I. 42) - /094	18											2	3	6	3	1	8	9	7												
8.	Advance payments for non-current tangible assets (I. 52) - /095A/	19											6	6	6	6	4	2														
9.	Correction item to acquired assets (+/- /097) +/- /098	20																														
A.III.	Total non-current financial assets (I. 22 to I. 32)	21											1	0	6	0	6	6	4	3	9											
A.III.1.	Shares and ownership interests in group companies (I. 61A, /092A, /093A) -	22																														
2.	Shares and ownership interests with a participating interest except for group companies (I. 61A, /092A, /093A) -	23											1	0	6	0	6	6	4	3	9											
3.	Other field-for-sale securities and ownership interests (I. 63A) - /096A/	24																														
4.	Loans to group companies (I. 66A) - /096A/	25																														
5.	Loans within a participating interest except for group companies (I. 66A) - /096A/	26																														
6.	Other loans (I. 67A) - /096A/	27																														
7.	Debt securities and other non-current financial assets (I. 68A, /096A, /096A) - /096A/	28																														

UPPODv14\_4

Balance Sheet  
ÚčPOD 1 - 01

D1C 2 0 2 2 0 3 6 5 9 9

IČO 3 5 9 4 6 0 2 4



Description a	Assets b	c	Current Reporting Period		Immediately-Preceding Reporting Period	
			Gross - Part 1		Net 2	
			Correction - Part 2		Net 3	
8.	Loans and other non-current financial assets with remaining maturity of up to one year (056A, 057A, 058A, 059A) - 056A/	29				
9.	Bank accounts bound for period exceeding one year (22XA)	30				
10.	Non-current financial assets in acquisition (043) - 056A/	31				
11.	Advance payments for non-current financial assets (053) - 056A/	32				
B.	Current assets (I. 34 + I. 41 + I. 53 + I. 66 + I. 71)	33	1 0 7 3 1 1 0 0 7 5	1 0 7 3 1 0 2 9 0 3		
B.I.	Total inventory (I. 35 to I. 40)	34	7 1 7 2	1 1 2 7 4 7 7 8 8 1		
B.I.1.	Raw materials (112, 119, 11X) - /191, 19X/	35	1 3 6 5 5 5 8	1 3 6 5 5 5 8		
2.	Work-in-progress and semi-finished goods (121, 122, 12X) - /192, 193, 19X/	36				
3.	Finished goods (123) - 194	37				
4.	Livestock (124) - 195	38				
5.	Merchandise (132, 133, 13X, 139) - /196, 19X/	39				
6.	Advance payments for inventory (314A) - /391A/	40				
B.II.	Total non-current receivables (I. 42 + I. 46 to I. 52)	41	7 4 0 3 4 7 9 2 7	7 4 0 3 4 7 9 2 7		
B.II.1	Total trade receivables (I. 43 to I. 45)	42	2 3 3 8	2 3 3 8		

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Balance Sheet  
ÚčPOD 1 - 01

D1C 2 0 2 2 0 3 6 5 9 9

IČO 3 5 9 4 6 0 2 4



Description a	Assets b	c	Current Reporting Period		Immediately-Preceding Reporting Period	
			Gross - Part 1		Net 2	
			Correction - Part 2		Net 3	
1.a.	Trade receivables from group companies (311A, 312A, 313A, 314A, 315A, 316A) - /391A/	43				
1.b.	Trade receivables within a participating interest except for receivables from group companies (311A, 312A, 313A, 314A, 315A, 316A) - /391A/	44				
1.c.	Other trade receivables (311A, 312A, 313A, 314A, 315A, 316A) - /391A/	45	2 3 3 8	2 3 3 8		
2.	Net construction contract value (316A)	46				
3.	Other receivables from group companies (351A) - /391A/	47				
4.	Other receivables within a participating interest except for receivables from group companies (351A) - /391A/	48				
5.	Receivables from partners, members and participants in an association (354A, 355A, 356A, 357A) - /391A/	49				
6.	Receivables from derivative transactions (373A, 376A)	50				
7.	Other receivables (335A, 336A, 337A, 371A, 374A, 375A, 376A) - /391A/	51	7 3 6 8 8 3 0 9 7	7 3 6 8 8 3 0 9 7		
8.	Deferred tax asset (481A)	52	3 4 6 2 4 9 2	3 4 6 2 4 9 2		
B.III.	Total current receivables (I. 54 + I. 58 to I. 65)	53	1 1 8 4 4 1 3 2 0	1 1 8 4 3 4 1 4 8		
B.III.1	Total trade receivables (I. 55 to I. 57)	54	7 1 7 2	1 0 8 6 1 9 5 8 1		
1.a.	Trade receivables from group companies (311A, 312A, 313A, 314A, 315A, 316A) - /391A/	55	5 9 4 5 2 9 9	5 9 4 5 2 9 9		
1.b.	Trade receivables within a participating interest except for receivables from group companies (311A, 312A, 313A, 314A, 315A, 316A) - /391A/	56				

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UPPOD/H4.6

Balance Sheet  
U6-POD 1 - 01

D1C 2 0 2 2 0 3 6 5 9 9 IČO 3 5 9 4 6 0 2 4



Description a	ASSETS b	Line c	Current Reporting Period		Immediately-Preceding Reporting Period	
			Gross - Part 1		Net 2	
			Correction - Part 2		Net 3	
1.	Other trade receivables (311A, 312A, 313A, 314A, 315A, 316A) - 391A/	57	1 8 3 1 0 3 8	1 8 2 5 2 5 0	1 1 6 4 4 4 6	
2.	Net construction contract value (316A)	58				
3.	Other receivables from group companies (351A) - 391A/	59				
4.	Other receivables with a participating interest except for receivables from group companies (351A) - 391A/	60				
5.	Receivables from partners, members and participants in an association (354A, 355A, 356A, 357A) - 391A/	61				
6.	Social security insurance (358A) - 391A/	62				
7.	Tax assets and subsidies (341, 342, 343, 345, 346, 347) - 391A/	63	1 1 0 6 3 5 4 6 6	1 1 0 6 3 5 4 6 6		
8.	Receivables from derivative transactions (373A, 376A)	64		1 0 0 9 0 9 5 2 4		
9.	Other receivables (355A, 356A, 371A, 374A, 375A, 378A) - 391A/	65	2 9 5 1 7	2 8 1 3 3	2 2 7 5 3	
B.IV.	Total current financial assets (I. 67 to I. 70)	66	2 0 8 0 6	2 0 8 0 6	2 1 0 4 2	
B.IV.1.	Current financial assets in group companies (251A, 252A, 255A, 257A, 258A) - 291A, 296A/	67	2 0 8 0 6	2 0 8 0 6	2 1 0 4 2	
2.	Current financial assets excluding current financial assets in group companies (251A, 252A, 255A, 257A, 258A) - 291A, 296A/	68				
3.	Treasury stock and treasury shares (252)	69				
4.	Current financial assets in acquisition (259, 314A) - 291A/	70				

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UPPOD/H4.7

Balance Sheet  
U6-POD 1 - 01

D1C 2 0 2 2 0 3 6 5 9 9 IČO 3 5 9 4 6 0 2 4



Description a	ASSETS b	Line c	Current Reporting Period		Immediately-Preceding Reporting Period	
			Gross - Part 1		Net 3	
			Correction - Part 2		Net 3	
B.V.	Financial accounts I. 72 + I. 73	71	2 1 2 9 3 4 4 6 4	2 1 2 9 3 4 4 6 4	2 1 8 8 6 6 8 4 3	
B.V.1.	Cash on hand (211, 213, 21X)	72	1 7 4 4 8	1 7 4 4 8	2 3 2 6 4	
2.	Bank accounts (221A, 22X, +/- 261)	73	2 1 2 9 1 7 0 1 6	2 1 2 9 1 7 0 1 6	2 1 8 8 4 3 5 7 9	
C.	Total accruals and deferrals (I. 75 to I. 78)	74	2 3 7 8 9 3 2	2 3 7 8 9 3 2	3 8 9 5 0 0 1	
C.1.	Non-current deferred expenses (381A, 382A)	75	1 4 7 5 5 1	1 4 7 5 5 1	1 3 5 3 0 4	
2.	Current deferred expenses (381A, 382A)	76	3 0 3 5 8 3	3 0 3 5 8 3	1 5 1 0 1 5	
3.	Non-current accrued income (385A)	77				
4.	Current accrued income (385A)	78	1 9 2 7 7 9 8	1 9 2 7 7 9 8	3 6 0 8 6 8 2	
Description a	EQUITY AND LIABILITIES b	Line c	Current Reporting Period		Immediately-Preceding Reporting Period	
			4		5	
A.	TOTAL EQUITY AND LIABILITIES I. 80 + I. 101 + I. 141	79	1 3 3 8 6 3 5 3 3 7	1 4 0 1 2 8 8 5 4 4		
A.I.	Equity I. 80 + I. 85 + I. 86 + I. 87 + I. 90 + I. 93 + I. 97 + I. 100	80	2 1 8 3 9 9 1 3 5	2 2 4 0 8 7 7 7 7 0		
A.I.1.	Total registered capital (I. 82 to I. 84)	81	3 6 4 4 6 9 4 0	3 6 4 4 6 9 4 0		
A.I.1.1.	Registered capital (+/- 491)	82	3 6 4 4 6 9 4 0	3 6 4 4 6 9 4 0		
2.	Changes in the registered capital +/- 419	83				
3.	Receivables for subscribed capital (-/253)	84				
A.I.2.	Share premium (412)	85				
A.I.3.	Other capital funds (413)	86				
A.IV.	Legal reserve funds I. 88 + I. 89	87	8 4 2 2 6 8 5	8 4 2 2 6 8 4		
A.IV.1.	Legal reserve fund and non-distributable fund (417A, 418, 421A, 422)	88	8 4 2 2 6 8 5	8 4 2 2 6 8 4		
2.	Reserve fund for treasury stock and treasury shares (417A, 421A)	89				

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Descript ion a	EQUITY AND LIABILITIES b	Line c	Current Reporting Period 4	Immediately-Preceding Reporting Period 5
	Other funds from profit I. 91 + I. 92	90	3 2 1 4 6 5 7 4	3 5 3 9 5 6 8 6
A.V.1	Statutory funds (427, 429)	91		
2	Other funds (427, 429)	92	3 2 1 4 6 5 7 4	3 5 3 9 5 6 8 6
A.V.2	Total revaluation reserves (I. 94 to I. 96)	93	9 9 7 8 1 4 6 2	1 0 0 7 3 3 2 1 9
A.V.1	Asset and liability revaluation reserve (+/- 414)	94	- 1 5 3 0 9 8 3 8	- 1 4 3 5 8 0 8 1
2	Financial investments revaluation reserve (+/- 415)	95	1 1 5 0 9 1 3 0 0	1 1 5 0 9 1 3 0 0
3	Revaluation reserve from fusions, mergers and separations (+/- 416)	96		
A.V.2	Profit/loss from previous years I. 98 + I. 99	97	3 6 9 9 6 1 4 8	3 9 1 9 6 1 4 8
A.V.1	Retained earnings from previous years (428)	98	3 6 9 9 6 1 4 8	3 9 1 9 6 1 4 8
2	Accumulated losses from previous years (+/- 429)	99		
A.V.2	Profit/loss for the current reporting period after taxation (+/- I. 91 + I. 92 + I. 93 + I. 94 + I. 95 + I. 96 + I. 97 + I. 98 + I. 99 + I. 101 + I. 102 + I. 103 + I. 104 + I. 105 + I. 106 + I. 107 + I. 108 + I. 109 + I. 110 + I. 111 + I. 112 + I. 113 + I. 114 + I. 115 + I. 116 + I. 117)	100	4 6 0 5 3 2 6	3 8 9 3 0 9 3
B.	Liabilities I. 102 + I. 118 + I. 121 + I. 122 + I. 136 + I. 139 + I. 140	101	1 0 0 7 3 0 4 0 5 7	1 0 6 0 0 1 9 7 3 1
B.1	Total non-current liabilities (I. 103 + I. 107 to I. 117)	102	7 5 8 7 6 6 5	7 5 5 0 8 0 1
B.1.1	Total long-term trade payables (I. 104 to I. 106)	103		
1.4	Trade payables to group companies (321A, 475A, 476A)	104		
1.5	Trade payables within a participating interest except for payables to group companies (321A, 475A, 476A)	105		
1.6	Other trade payables (321A, 475A, 476A)	106		
2	Net construction contract value (316A)	107	7 0 0 0 0 0 0	7 0 0 0 0 0 0
3	Other payables to group companies (471A, 473A)	108		
4	Other payables within a participating interest except for payables to group companies (471A, 473A)	109		
5	Other long-term payables (479A, 479A)	110		
6	Long-term advance payments received (475A)	111		
7	Long-term bills of exchange to be paid (478A)	112		
8	Bonds issued (473A/-255A)	113		
9	Social fund payables (472)	114	5 8 7 6 6 5	5 5 0 8 0 1
10	Other non-current payables (336A, 372A, 474A, 474A)	115		
11	Long-term payables from derivative transactions (373A, 377A)	116		
12	Deferred tax liability (481A)	117		

Descript ion a	EQUITY AND LIABILITIES b	Line c	Current Reporting Period 4	Immediately-Preceding Reporting Period 5
B.1.1	Long-term provisions for liabilities I. 119 + I. 120	118	8 7 1 8 6 5 0 8 0	9 3 0 2 2 4 7 2 4
1.1	Legal provisions for liabilities (451A)	119		
2	Other provisions for liabilities (459A, 459A)	120	8 7 1 8 6 5 0 8 0	9 3 0 2 2 4 7 2 4
B.1.2	Long-term bank loans (461A, 461A)	121		
B.1.3	Total current liabilities (I. 123 + I. 127 to I. 135)	122	1 3 9 2 5 8 5 6	1 8 2 3 0 0 0 9
B.1.4	Total trade payables (I. 124 to I. 126)	123	9 2 5 4 0 7 4	1 3 7 6 4 7 1 8
1.4	Trade payables to group companies (321A, 322A, 324A, 325A, 326A, 475A, 476A, 479A, 479A)	124	1 5 2 7 9 5	5 0 6 4 5 5
1.5	Trade payables within a participating interest except for payables to group companies (321A, 322A, 324A, 325A, 326A, 475A, 476A, 479A, 479A)	125		
1.6	Other trade payables (321A, 322A, 324A, 325A, 326A, 326A, 475A, 476A, 479A, 479A)	126	9 1 0 1 2 7 9	1 3 2 5 8 2 6 3
2	Net construction contract value (316A)	127		4 9 9 6 7 4
3	Other payables to group companies (361A, 363A, 471A, 473A)	128		
4	Other payables within a participating interest except for payables to group companies (361A, 363A, 471A, 473A)	129		
5	Payables to employees (331, 333, 333X, 479A)	130		
6	Payables to employees (331, 333, 333X, 479A)	131	1 4 8 3 0 9 3	1 3 5 6 4 8 1
7	Social security insurance payables (336A)	132	1 0 0 2 6 8 2	9 1 8 2 4 5
8	Tax liabilities and subsidies (341, 342, 343, 345, 346, 347, 349)	133	3 0 8 0 2 5	2 8 5 0 9 9
9	Payables from derivative transactions (373A, 377A)	134		
10	Other payables (372A, 379A, 474A, 475A, 479A, 479A)	135	1 8 7 7 9 8 2	1 4 0 5 7 9 2
B.1.5	Short-term provisions for liabilities I. 137 + I. 138	136	1 1 3 9 2 2 3 0 6	1 0 4 0 1 0 9 9 6
B.1.1	Legal provisions for liabilities (323A, 451A)	137	1 2 5 6 8 4 1	1 0 7 1 4 1 1
2	Other provisions for liabilities (323A, 32X, 459A, 459A)	138	1 1 2 6 6 5 4 6 5	1 0 2 9 3 9 5 8 5
B.1.2	Current bank loans (221A, 231, 232, 23X, 461A, 461A)	139	3 1 5 0	3 2 0 1
B.1.3	Short-term financial assistance (241, 249, 249X, 473A, +/-255A)	140		
C.	Total accruals and deferrals (I. 142 to I. 145)	141	1 1 2 9 3 2 1 4 5	1 1 7 1 8 1 0 4 3
C.1	Non-current accrued expenses (383A)	142		
2	Current accrued expenses (383A)	143	5 1 8	9 4 2
3	Non-current deferred income (384A)	144	9 3 1 3 2 4 0 6	9 9 7 4 1 4 0 6
4	Current deferred income (384A)	145	1 9 7 9 9 2 2 1	1 7 4 3 8 6 9 5






Descr tion a	Item b	Line c	Actual	
			Current Reporting Period	Immediately-Preceding Reporting Period
			1	2
-	Net turnover (a portion of Accounting Class 6 under the Act)	01	2 1 9 7 6 9 0 9	2 2 3 1 9 9 8 7
--	Total operating revenues (I. 03 to I. 09)	02	1 3 9 1 6 6 8 3 5	1 4 1 4 4 1 7 7 5
I.	Revenues from the sale of merchandise (504, 507)	03		
II.	Revenues from the sale of own products (501)	04	3 5 1 7 3	3 7 2 5 9
III.	Revenues from the sale of services (502, 506)	05	2 1 9 4 1 7 3 6	2 2 2 8 2 7 2 8
IV.	Changes in inventories (+/- Accounting Group 61)	06		
V.	Own work capitalised (Accounting Group 62)	07	2 7 3 4 5 9 7	2 1 7 1 8 9 3
VI.	Revenues from the sale of non-current intangible assets, non-current tangible assets and raw materials (541, 546)	08	3 4 8 6 1	3 4 3 5 9 8
VII.	Other operating revenues (544, 545, 546, 548, 555, 557)	09	1 1 4 4 2 0 4 6 8	1 1 6 6 0 6 2 9 7
--	Total operating expenses (I. 11 + I. 12 + I. 13 + I. 14 + I. 15 + I. 20 + I. 21 + I. 24 + I. 25 + I. 26)	10	1 2 7 6 5 2 9 3 8	1 3 0 7 0 8 8 5 6
A.	Costs of the acquisition of merchandise sold (504, 507)	11		
B.	Consumed raw materials, energy and other non-inventory supplies (501, 502, 503)	12	9 1 6 3 7 4 2	6 8 4 3 2 2 9
C.	Provisions for inventories (+/-) (505)	13		
D.	Services (Accounting Group 51)	14	5 8 8 6 7 2 4 5	6 8 9 7 5 9 0 1
E.	Total personnel expenses (I. 16 to I. 19)	15	3 2 5 7 3 4 2 6	2 9 6 1 5 5 1 2
E.1.	Wages and salaries (521, 522)	16	2 0 6 7 3 2 1 1	1 8 5 3 6 6 4 9
2.	Remuneration of members of company bodies and co-operative (523)	17	2 8 3 4 7 6	2 9 4 3 0 9
3.	Social insurance expenses (524, 525, 526)	18	8 5 1 1 7 9 3	8 0 5 7 8 5 1
4.	Social expenses (527, 528)	19	3 1 0 4 9 4 6	2 7 2 6 7 0 3
F.	Taxes and fees (Accounting Group 53)	20	2 8 1 7 6 5 9	2 6 1 9 2 5 4
G.	Amortisation and depreciation, and provisions for non-current intangible and non-current tangible assets (I. 22 + I. 23)	21	1 8 8 7 2 2 3 9	1 8 1 5 9 5 6 2
G.1.	Amortisation and depreciation of non-current intangible and non-current tangible assets (551)	22	2 3 4 2 9 0 5 6	2 3 3 0 0 2 4 8
2.	Provisions for non-current intangible and non-current tangible assets (+/-) (553)	23	- 4 5 5 6 8 1 7	- 5 1 4 0 6 8 6
H.	Net book value of non-current assets and raw materials sold (541, 542)	24		
I.	Provisions for receivables (+/-) (547)	25		
J.	Other operating expenses (543, 544, 545, 546, 548, 549, 555, 557)	26	5 3 5 8 6 2 7	4 4 9 5 3 9 8
---	Operating profit or loss (+/-) (I. 02 - I. 10)	27	1 1 5 1 3 8 9 7	1 0 7 3 2 9 1 9



Descr tion a	Item b	Line c	Actual	
			Current Reporting Period	Immediately-Preceding Reporting Period
			1	2
-	Added value (I. 03 + I. 04 + I. 05 + I. 06 + I. 07) - (I. 11 + I. 12 + I. 13 + I. 14)	28	- 4 3 3 1 9 4 8 1	- 5 1 3 2 7 2 5 0
--	Total revenues from financing activities (I. 29 + I. 31 + I. 35 + I. 39 + I. 42 + I. 43 + I. 44)	29	3 8 7 2 2 4 6 7	4 3 0 8 1 6 3 5
VIII.	Revenues from the sale of securities and ownership interests (661)	30		
IX.	Total revenues from non-current financial assets (I. 32 to I. 34)	31		
IX.1.	Revenues from securities and ownership interests from group companies (665A)	32		
2.	Revenues from securities and ownership interests within a participating interest except for revenues from group companies (665B)	33		
3.	Other revenues from securities and ownership interests (665A)	34		
X.	Total revenues from current financial assets (I. 36 + I. 38)	35		
X.1.	Revenues from current financial assets from group companies (666A)	36		
2.	Revenues from current financial assets within a participating interest except for revenues from group companies (666B)	37		
3.	Other revenues from current financial assets (666A)	38		
XI.	Interest income (I. 40 + I. 41)	39	2 5 4 1 4 7	2 3 3 4 2 5
XI.1.	Interest income from group companies (662A)	40		
2.	Other interest income (662A)	41	2 5 4 1 4 7	2 3 3 4 2 5
XII.	Foreign exchange gains (663)	42	- 2 0	- 1 6
XIII.	Gains on revaluation of securities and revenues from derivative transactions (664, 667)	43		
XIV.	Other revenues from financing activities (668)	44	3 8 4 6 8 3 4 0	4 2 8 4 8 2 2 6
--	Total costs of financing activities (I. 46 + I. 47 + I. 48 + I. 49 + I. 52 + I. 53 + I. 54)	45	4 2 8 1 8 7 5 6	4 7 1 0 7 8 9 1
K.	Securities and ownership interests sold (561)	46		
L.	Expenses related to current financial assets (566)	47		
M.	Provisions for financial assets (+/-) (565)	48		
N.	Interest expense (I. 50 + I. 51)	49		
N.1.	Interest expense for group companies (562A)	50		
2.	Other interest expense (562A)	51		
O.	Foreign exchange losses (563)	52	4 1	1 6 7
P.	Expenses for revaluation of securities and expenses related to derivative transactions (564, 567)	53		
Q.	Other costs of financing activities (568, 569)	54	4 2 8 1 8 7 1 5	4 7 1 0 7 7 2 4

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Income Statement (Úč. P02 2 - 01)																		
D1C 2 0 2 2 0 3 6 5 9 9 IČO 3 5 9 4 6 0 2 4																		
																		
Description a	Item b	Line c	Actual															
			Current Reporting Period									Immediately-Preceding Reporting Period						
			1									2						
---	Profit/loss from financing activities (+/-) (L 29 - L 45)	55	-	4	0	9	6	2	8	9	-	4	0	2	6	2	5	6
---	Profit/loss for the reporting period before taxation (+/-) (L 27 + L 55)	56		7	4	1	7	6	0	8		6	7	0	6	6	6	3
R.	Income tax (L 58 + L 59)	57		2	8	1	2	2	8	2		2	8	1	3	5	7	0
R.1	Current income tax (591, 595)	58		2	9	1	0	2	9	0		2	9	2	7	4	0	3
2	Deferred income tax (+/-) (592)	59		-	9	8	0	0	8		-	1	1	3	8	3	3	
S.	Profit/loss of partnership transferred to partners (+/-) (596)	60																
---	Profit/loss for the reporting period after taxation (+/-) (L 56 - L 57 + L 60)	61		4	6	0	5	3	2	6		3	8	9	3	0	9	3



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## Independent Auditor's Report

To the Shareholder, Supervisory Board and Board of Directors of Jadrová a vyradovacia spoločnosť, a. s.:

### Report of Financial Statements Audit

#### Opinion

We have performed an audit of Financial Statements of Jadrová a vyradovacia spoločnosť, a. s. („Company“), that include the Balance Sheet as to 31 December 2019, the Profit and Loss Account for the year ending as to the specified date, and Notes involving a summary of significant accounting policies and accounting methods.

In our opinion, the attached Financial Statements provide a true and fair view of the Company financial situation as to 31 December 2019 and of the economic result for the year ending as to the specified date, in compliance with Act No. 431/2002, Coll., on Accounting, as amended (hereinafter referred to as „Act on Accounting“).

#### Basis for the Opinion

We have performed the audit in compliance with international auditing standards (International Standards on Auditing, „ISAs“). In compliance with these standards, our responsibility is specified in the Auditor's Responsibility for the Audit of Financial Statements paragraph. We are independent on the Company, in compliance with provisions of Act No 423/2015, Coll., on Statutory Audit and on Amendments to Act No. 431/2002, Coll., on Accounting, as amended (hereinafter referred to as „Act on Statutory Audit“), related to ethics, including the Auditor's Code of Ethics, relevant to our audit of Financial Statements and we have also met other requirements specified by those provisions relating to ethics. We are convinced that auditor evidence we have obtained provide a sufficient and appropriate basis for our opinion.

#### Accentuation of Facts

We call attention to Notes III.4, IV.2 and VIII.2 to the Financial Statements. The Company has measured its liabilities and charged the related claims in connection with the decommissioning of nuclear power engineering and non-power engineering equipment, spent nuclear fuel storage and radioactive waste processing on an equal level, based on the updated Nuclear Power Engineering Back End Strategy that was approved by the Government of the Slovak Republic in the year 2014. Estimates and assumptions considered by the management when producing these provisions are, by their nature, sensitive to expectations of developments in future costs and projected cash flows, inflation, discount rates, technical plans and amendments to government legal regulations. Any changes in these parameters could affect significantly the value of provisions reported in the Company Financial Statements in future periods.

We call attention to Notes I.1.2 and III.2 to the Financial Statements. The Company has established a joint venture Jadrová energetická spoločnosť Slovenska, a. s., (JESS, j. s. c.) along with ČEZ Bohnice, a. s., which is a subsidiary of ČEZ, in order to construct a new nuclear power source. The future development and return on this investment in the joint venture depend on the successful implementation of the project of the new nuclear power source construction and subsequent operations on the Jaslovské Bohunice site. The decision on the construction will be made in the future.

With regard to the facts, our opinion is not modified.

Company from the Ernst & Young Global Limited group  
Ernst & Young Slovakia, spol. s r.o., IČO: 35 840 403, registered in the Business Register of the District Court Bratislava I, Section Sro, Insert No.: 27004/B and in the List of Auditors kept by the Slovak Chamber of Auditors under No. 207.

INDEPENDENT AUDITOR'S REPORT

#### *Responsibility of the Statutory Body and Persons Entrusted to Administer Financial Statements*

The Statutory Body is responsible for the preparation of the Financial Statements so that they can provide a true and fair view in compliance with the Act on Accounting, and for those internal checks it considers as necessary for the preparation of the Financial Statements, that do not contain any significant incorrect items whether due to a fraud or an error.

When preparing the Financial Statements, the Statutory Body is responsible for the assessment of the Company ability to continue continually its activities, for the description of facts related to the continual continuation of the activities, if necessary, and for the use of the assumption of continual continuation of the activities in accountancy, unless it intends to wind-up the Company or terminate its activities, or it would not have any other possibility than to do so.

Persons entrusted to administer are responsible for the supervision over the process of financial reporting of the Company.

#### *Auditor's Responsibility for the Audit of Financial Statements*

It is our responsibility to obtain an adequate assurance that the Financial Statements, as a whole, do not comprise any significant incorrect items, whether due to a fraud or an error, and to issue the Auditor's report including the opinion. The adequate assurance is a high-degree assurance, but it is not a guarantee that the audit performed in compliance with ISAs will always reveal significant incorrect items, if they exist. The incorrect items can occur due to a fraud or an error and they are considered as significant if it could be reasonably expected that they could, individually or in the summary, affect economic decisions of users made on the basis of the Financial Statements.

Within the framework of the audit performed in compliance with ISAs, we apply professional judgements and maintain professional scepticism during the whole audit. In addition:

- We identify and review risks of a significant incorrect items in the Financial Statements whether due to a fraud or an error, we propose and implement auditor procedures responding to these risks and we obtain auditor evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of failure to reveal a significant incorrect item due to a fraud is higher than the risk due to an error, because a fraud can include a collusion, counterfeiting, a deliberate omission, a false statement or a circumvention of internal checks.
- We make our acquaintance with internal checks relevant to the audit in order to be able to propose auditor procedures appropriate under the given circumstances, but not for the purpose of expressing an opinion on the effectiveness of Company internal checks.
- We assess the appropriateness of used accounting policies and accounting methods and the adequacy of accounting estimates and the provision of information related thereto performed by the Statutory Body.
- We draw a conclusion whether the Statutory Body uses appropriately, within the accounting, an assumption of continual continuation of activities and, on the basis of auditor evidence obtained, we draw a conclusion whether there is a significant uncertainty in connection with events or circumstances that could question significantly the Company ability to continue continually the activities. If we come to a conclusion that there is such a significant uncertainty, we are obliged to call attention in our auditor report to related information given in the Financial Statements, or, if the information is not sufficient, to modify our opinion. Our conclusions are based on auditor evidence obtained as to the date of issue of our auditor report. However, future events or circumstances can cause that the Company will stop the continuation of continual activities.
- We assess the overall presentation, structure and contents of the Financial Statements including information given therein, as well as whether the Financial Statements capture transactions completed and events occurred in such a way that leads to their fair illustration.

We communicate with persons entrusted to administer, among others, about the planned audit scope and schedule and about significant audit findings, including all significant deficiencies in internal checks we identify during our audit.

#### **Report to Additional Requirements Specified by Acts and Other Legal Regulations**

##### *Report to Information Given in the Annual Report*

The Statutory Body is responsible for information given in the Annual Report prepared in compliance with requirements specified by the Act on Accounting. Our above given opinion on the Financial Statements does not apply to other information in the Annual Report.

In connection with the audit of Financial Statements, it is our responsibility to make our acquaintance with information given in the Annual Report and to review whether the information are not in a significant discrepancy with the audited Financial Statements or with our knowledge that we obtained during the audit of the Financial Statements, or that otherwise seem to be significantly incorrect.

As to the date of issue of the auditor report of the audit of the Financial Statements, we did not have the Annual Report available.

When we obtain the Annual Report, we will review whether the Company Annual Report comprises information the Act on Accounting requires to be given and, on the basis of work performed during the audit of the Financial Statements, we will express our opinion whether:

- information given in the Annual Report prepared for the year 2019 is in compliance with the Financial Statements for the given year,
- the Annual Report comprises information in compliance with the Act on Accounting.

Moreover, we will state whether we have identified any significant incorrect items in the Annual Report, based on our knowledge of the entity and the situation therein we obtained during the audit of the Financial Statements.

20 March 2020  
Bratislava, Slovak Republic

Ernst & Young Slovakia, Ltd.  
SKAUC Licence No. 257



Ing. Tomáš Přeček, Statutory Auditor  
UDVA Licence No. 1067

## ABBREVIATIONS

ALARA	As Low As Reasonable Achievable – principle of persons' radiation exposure optimization
BIDSF	Bohunice International Decommissioning Support Fund
CRAM	Captured radioactive materials
DZM	Documentation of change and modification
FCC	Fibre concrete container
FP LRW	Final Processing of Liquid Radioactive Waste
IRAW	Institutional radioactive waste
IRWS	Interim Radioactive Waste Storage
ISFS	Interim Spent Fuel Storage
JAVYS, a. s.	Jadrová a vyradovacia spoločnosť, a joint stock company
LRAW	Liquid radioactive waste
MEc SR	Ministry of Economy of the Slovak Republic
NF	Nuclear facility
NNF SR	National Nuclear Fund of the Slovak Republic
NPP	Nuclear power plant
NRA SR	Nuclear Regulatory Authority of the Slovak Republic
NRWR	National Radioactive Waste Repository
PHA SR	Public Health Authority of the Slovak Republic
RAW	Radioactive waste
RW PTT	Radioactive Waste Processing and Treatment Technologies
SE, a. s.	Slovenské elektrárne, a joint stock company
SE-EBO	Slovenské elektrárne, a joint stock company, Bohunice Nuclear Power Plant (V2 NPP)
SE-EMO	Slovenské elektrárne, a joint stock company, Mochovce Nuclear Power Plant (EMO1,2)
SNF	Spent nuclear fuel
SRAW	Solid radioactive waste
VLLW	Very low-level waste



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