

# Mission Speech by the Chairman of the Board of Directors and CEO Company Bodies Organizational Structure and Human Resources Year in Brief Decommissioning of Nuclear Facilities Radioactive Waste Management 15 Spent Nuclear Fuel Management 18 Safety **Environmental Protection** 21 Strategic Areas 23 International Commercial Activities 24 CONTENT Subsidiary JESS, a.s. 25 **Economic Results** 26 34 Independent Auditor's Report

# MISSION SPEECH BY THE CHAIRMAN OF THE **BOARD OF DIRECTORS** AND CEO

### **MISSION**

- operation, maintenance and decommissioning of nuclear facilities
- management of spent nuclear fuel and the realization of fresh and spent nuclear fuel transport
- the management of radioactive waste and the implementation of the transport of radioactive waste

# THE MINISTRY OF ECONOMY SR AUTHORIZATION FOR THE PERFORMANCE OF ACTIVITIES

On the basis of the provisions of Act No. 350/2011, supplementing Atomic Act No. 541/2004, Ministry of Economy of the SR authorized JAVYS, a.s. with the performance of activities associated with the storage of radioactive waste and spent nuclear fuel at the national level for all operators of nuclear facilities.

As the only company, JAVYS, a.s. has professionally competent staff, the relevant technical resources, established facilities for the pursuit of these activities and holds authorizations issued by the supervisory authorities.

All of the activities are being carried out in accordance with the approved Strategy for the Final Part of the Peaceful Use of Nuclear Energy and with the procedures set out in the National Policy and National Program dealing with spent nuclear fuel and radioactive waste in the Slovak Republic, processed according to the EK 2011/70/Euratom directive principles.

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

Ladies and gentlemen.

For a long time, Jadrová a vyraďovacia spoločnosť, a.s. has been demonstrating its high expertise and quality in the field decommissioning of nuclear facilities, management of spent nuclear fuel, as well as radioactive waste, both on domestic and international soil. Positive economic results and continuous development of activities connected with the protection of the environment are proof of its reliable operation. The success of our company stems from its effective management, but also from the fact that, as one of the few Slovak companies, it can boast professionals with more than 40 years of experience. Many years of know how and a highly professional approach allow us to strengthen our position in the context of the relevant competition.

I am glad that looking back at 2015, I can conclude that we have managed to build on the achievements of previous years. The past year has been marked by the launching of the 2<sup>nd</sup> stage of the V1 nuclear power plant's decommissioning. With the aim of reducing the potential risk and environmental burden we continued the implementation of the decommissioning work. We decommissioned the central pumping station and other buildings, we completed the processing of historical sludge and sorbents and after emptying the technology we modified the turbine hall to the workplace for the release of materials from the primary circuit. Insulation is being removed there. We also ensured the activities within the 2nd stage of the A1 nuclear power plant's decommissioning, and this stage will be completed in 2016. In order to maintain the continuity of the decommissioning work, we were preparing the 3<sup>rd</sup> and 4<sup>th</sup> stage in conjunction. A necessary condition for the approval of the implementation of both phases was the completion of the environmental impact assessment process and the submission of the related documentation to the supervisory authorities and the European Commission.

In the final part of nuclear energy, spent nuclear fuel and radioactive waste management are an important part of the professional portfolio of JAVYS, a.s. 249 fuel cells from the Bohunice V2 nuclear power plant and operating Mochovce nuclear units were transported to Interim Spent Fuel Storage in Jaslovské Bohunice in 2015. We are also storing spent fuel from the decommissioned V1 power plant in the interim storage in the long term.

Radioactive waste (RAW) are processed and modified using modern technologies in the nuclear facilities located in Jaslovské Bohunice and Mochovce. These waste do not come only from nuclear power plants. JAVYS, a.s. also cares about the safe handling of RAW from healthcare, industry, as well as research centers. When dealing with these specific materials, the company performs a society-wide responsible role consisting in particular in the protection of the environment and the health of the population. To this end, we have built a new facility for the treatment of institutional RAW and captured radioactive materials.

Within the construction of the necessary infrastructure in the final part of nuclear energy, we are implementing a number of major investment projects. The most important events include the construction of a repository for very low active waste and launching facilities for the handling of institutional RAW and captured radioactive materials in Mochovce. In Jaslovské Bohunice we

are building an interim RAW storage, which will serve in particular for the storage of large metal RAW from the decommissioning of nuclear power plants. Preparatory activities related to the introduction of a technology for the remelting of metal RAW are also being launched. Equally important is the project for the completion of the storage capacity for spent fuel in Jaslovské Bohunice. We regularly communicate with representatives of the local governments of municipalities affected by our activities about the upcoming and prepared activities. I very much appreciate the helpfulness of mayors during the consultations, also at public consultations regarding individual projects. We participate actively in the presentations of activities through civil information commissions at both nuclear sites. We present ourselves in the same natural way to the lay public in the information center in Jaslovské Bohunice and since 2016 also in the new IC in Mochovce.

Constant efforts and concrete steps in the field of quality improvement of activities, as well as a highly technical background have become the subject of recognition by many international experts and representatives of international institutions. Last year, JAVYS, a.s. was visited by the members of the Board of Governors of the IAEA in Vienna, the Japanese Ambassador to Slovakia, Akio Egawa, the representatives of the China National Nuclear Corporation, and last but not least, members of the Board of Directors of the European Bank for Reconstruction and Development. The company experts provided their experience to experts from South Korea, Ukraine, Georgia, Brazil and Argentina. A professional, expert, and organizational approach was appreciated not only by participants in the October meeting of international Technical Advisory Group (TAG) for the decommissioning of nuclear facilities operating at the OECD, but also experts from an international network of laboratories dealing with the characterization of radioactive waste (LABONET) at the November annual meeting.

In the context of commercial activities, we were able to get a respected position in international markets. Our experience and expertise allows us to collaborate on projects in the Czech Republic, but also in Iraq and Italy. Through their implementation, the company gains the resources necessary for the innovation of technological lines and processes, allowing us to continue to grow.

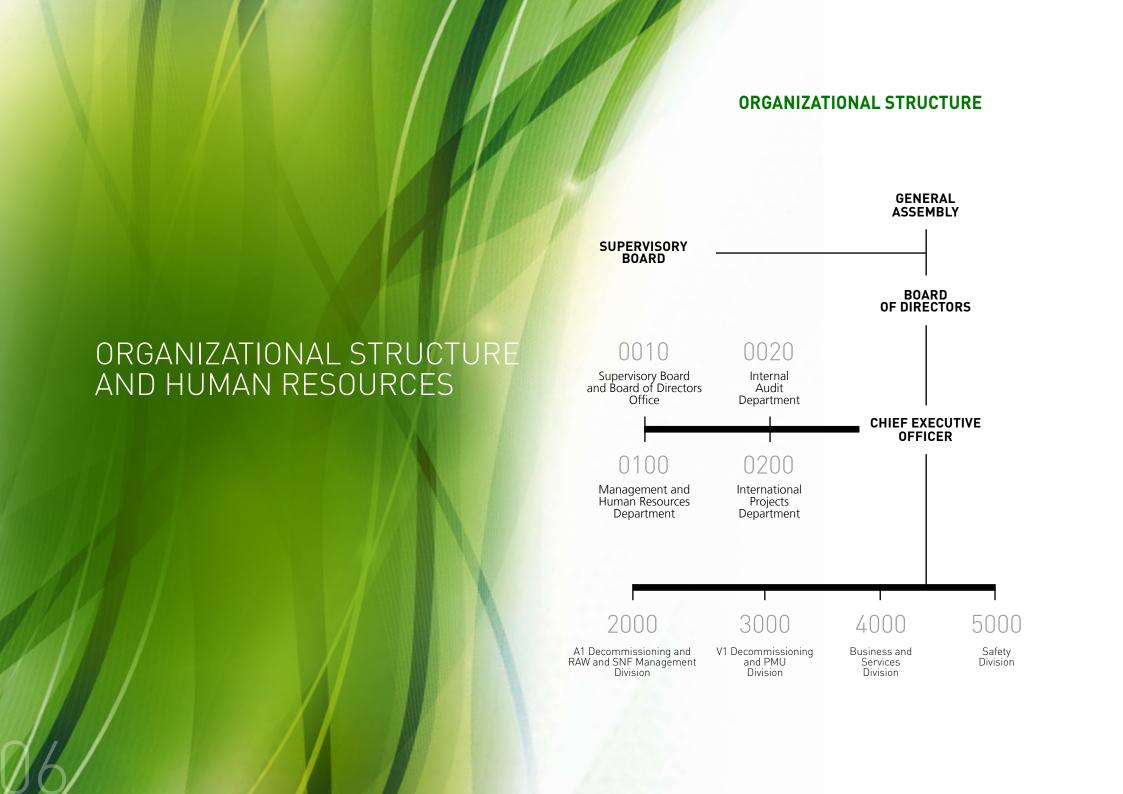
JAVYS, a.s. is not financed entirely from public funds; on the contrary, it generates a profit from its commercial activities, properly fulfils its tax obligations and levy obligations, and pays dividends to the state from the generated profit. In 2015, the company again made a profit again, which comes up to EUR 14,195,930 after taxation. The positive results allow us to support dozens of people in difficult life situations, such as the disabled, mothers in distress, but also various cultural and sports projects, local governments in the region as well as in all Slovakia. These are also the tasks of strong companies and the quality of work must be evaluated not only in numbers. but also in terms of specific acts. Confirmation of proper functioning of the company is also the repeated acquisition of the Mercury Award by the financial Directorate of the SR for the fulfilment of the obligations towards the state.

In conclusion, I want to thank all the employees of the company who significantly contributed to the obtained results. I am convinced that in 2016 we can continue to meet the set objectives and obligations in respect of Slovak society and business partners.

Ing. Peter Čižnár, MBA

Chairman of the Board of the Directors and CEO





### **HUMAN RESOURCES**

As at 31 December 2015, JAVYS, a.s. had 819 employees, which is 1 employee more compared with the situation of the employees to the same period last year.

### **Employee structure**

	as at 31 December 2015	Share in %
Workers	154	18.80
Technical-admi- nistrative staff	665	81.20
Total	819	100.00

# The structure of employees by level of education

	as at 31 December 2015	Share in %
Elementary	1	0.12
Secondary	495	60.44
Higher	323	39.44
Total	819	100.00

# TRAINING AND EDUCATION OF EMPLOYEES

JAVYS, a.s., which is the holder of the authorization for the operation and decommissioning of nuclear facilities, defines the Professional Preparation Policy in the documentation of quality in an Integrated Management System Handbook, where the main objective of the company is set: Prepare and maintain competent personnel to ensure the safe, reliable, ecological and economical operation of the production and technological equipment of the company within the meaning of the principles of a safety culture and ALARA principles with minimal impact of the human factor on the emergence of operating events.

In 2015, this objective was successfully fulfilled in the meaning of planned professional preparation schedules and requirements of professional units. The process of management and education and professional preparation of employees was regulated by a national supervisory authority – the Nuclear Supervision Authority of the SR in accordance with legislation – SR Act No. 541/2004 (The Atomic Act) and Decree of the Nuclear Supervision Authority of the SR No. 52/2006 on professional competence within the meaning of the Decree No. 34/2012.

Professional training of staff was implemented in the light of the documentation approved by the Nuclear Supervision Authority, Professional Employee Preparation System. Professional preparation and education in professional activities were ensured with the aim of effective and safe performance of work activities for the decommissioning of A1 NPP and V1 NPP nuclear facilities in the 2<sup>nd</sup> stage of the decommissioning and operation of nuclear facilities RAW PTT, ISFS, FP LRAW and NRWR

Trainings, courses and seminars beyond the scope of the legislation were provided for the growth of the professional level of staff. Educational activities have been focused on the decommissioning of nuclear facilities, management, and project management also for the change of SR legislation were preferred.

In terms of training and education of staff, JAVYS, a.s. nuclear facilities were operated by competent personnel, which ensured safe, reliable, ecological and economical operation without a negative impact on nuclear safety.

### **CERTIFIED ACTIVITIES**

Based on the results of the certificate audit, JAVYS, a. s. obtained internationally recognized recertifications in accordance with ISO 9001 (quality assurance), ISO 14001 (environmental protection) and OHSAS 18001 (occupational safety and health) standards.

Through certified management systems the company strengthened its position on the national and international labor market, in particular in connection with the development of commercial activities in foreign tenders in the form of participation in the various projects relating to the subject matter of JAVYS, a. s. activity. Certificates issued by the DNV-GL certifying agency confirmed that the management system process in the field of quality assurance, environmental protection, occupational safety and health meet the high requirements and criteria of these international standards. On the basis of the recertification audit, the company acquired the validity of the certificates for the area of Decommissioning of nuclear facilities, RAW and SNF management. JAVYS, a.s., has also an established certified management system in accordance with ISO/IEC 2000-1:2011 standard for IT - service management for non-technological information systems.

Strict compliance with the requirements of the imposed integrated management system has an unquestionably positive impact on enhancing the culture of safety in JAVYS, a.s.



On **15 January**, during the visit of the US Governor in the Board of Governors of the International Atomic Energy Agency (IAEA) and Charge d' Affaires for permanent representation of the USA in international organizations in Vienna, Laura Elizabeth Kennedy became acquainted with the Slovak nuclear program and appreciated the activities of JAVYS, a.s. in ensuring activities of the final part of the nuclear energy.

From **3 to 5 February**, the European Court of Auditors within the performance audit assessed the fulfilment of objectives of the Bohunice V1 NPP decommissioning program and carried out a BID-SF financial audit of project C15-B Transport and Packaging Resources for V1 NPP's Decommissioning – 1st stage.

On **6 February**, the mayors of the concerned municipalities and other parties were informed within the consultation day about the ongoing process of environmental impact assessment regarding projects relating to 3rd and 4th stages of A1 NPP's decommissioning and the completion of the storage capacity for spent fuel in Jaslovské Bohunice location.

From 13 to 26 February, JAVYS, a.s. carried out transport of spent fuel from V2 NPP, which is operated by Slovenské elektrárne, to Interim Spent Fuel Storage in Jaslovské Bohunice. Under strict security measures, it transported 78 fuel cartridges in transport containers placed on special rail carriages.

On **4 March**, JAVYS, a.s. was visited by the participants of the 2015 PIME International Conference of Nuclear Communicators, which took place in Bratislava. In particular, they were interested in decommissioning work in V1 NPP.

On **11 March**, a public consultation of the report on environmental impact assessment of the project regarding the 3rd and 4th stage of A1 NPP's decommissioning was held in the Cultural House in Radošovce. The consultation was attended by representatives of the JAVYS, a.s.' management, report processors, mayors and residents of the affected municipalities.

On **17 and 18 March**, on the occasion of the successful completion of the 1st stage of V1 NPP's decommissioning, JAVYS, a.s. organized an international seminar on the experience from the early decommissioning of nuclear power stations in the countries of Central and Eastern Europe.

On **18 March**, a public consultation of the report on environmental impact assessment of the project regarding of the completion of the spent fuel storage capacity in Jaslovské Bohunice was held in the Cultural House in Radošovce with the participation of representatives of JAVYS, a.s.' leadership, mayors and residents of affected municipalities.

**In the first quarter**, JAVYS, a.s. participated in the ensuring the shipments of fresh nuclear fuel to operated units of the company Slovenské elektrárne.

On **22 May**, the Japanese Ambassador to Slovakia, Akio Egawa, was interested in dealing with radioactive waste (RAW). He looked at the National RAW Repository in Mochovce and became acquainted with the strategy of placing the RAW in the repository.

On **28 May**, consultation on the impact of the project regarding the completion of spent fuel storage capacity in Jaslovské Bohunice was held at the Ministry of Agriculture of the Hungary in Budapest. The aim was to discuss cross-border environmental impacts and mitigation measures regarding the environmental impact.

On **16 June**, members of the Board of Governors of the IAEA in Vienna had a meeting during a visit to Slovakia with representatives of JAVYS, a.s. Accompanied by the President of the SR Nuclear Supervision Authority, Marta Žiaková, they viewed the Bohunice Radioactive Waste Treatment Centre in Jaslovské Bohunice.

From **22 to 26 June**, within cooperation with the IAEA, experts from JAVYS, a.s. exchanged experiences in the field of decommissioning of nuclear facilities and RAW management with a Georgian colleague. The one-week scientific visit included the inspection of nuclear facilities.

On **23 to 25 June**, 2015 ECED International Conference took place in Trnava, focusing on decommissioning of nuclear facilities and processing of RAW in the region of Central and Eastern Europe, organized by Slovenská nukleárna spoločnosť in cooperation with JAVYS, a.s.

On **29 June**, the members of the Board of the European Bank for Reconstruction and Development discussed the course of V1 NPP's decommissioning and programs on energy efficiency and development of renewable energy with the representatives of JAVYS, a.s.

On **2 July** the representatives of JAVYS, a.s., signed a memorandum of understanding with the China National Nuclear Corporation (CNNC) in search of opportunities for cooperation in the field of civil nuclear industry.

On **29 July**, a seminar on the decommissioning of the A1 nuclear power plant was held in the JAVYS, a.s. Information Center, attended by mayors and representatives of the surrounding municipalities of the Jaslovské Bohunice region.

On **31 July**, members of the Council of Managers of the SR National Nuclear Fund discussed the National RAW Repository in Mochovce. With interest they viewed the storage space for low active RAW and the construction of a repository for very low active RAW.

On **13 August** in Bratislava, representatives of JAVYS, a. s. presented the project regarding the Completion of Spent Fuel Storage Capacity in Jaslovské Bohunice to the representatives of the Federal Ministry of Land and Forestry, Environment and Water Management of the Republic of Austria and the Austrian vocational institutions within the EIA process.

On **24 August**, the representatives of JAVYS, a.s. met with the new President of the Association of Towns and Municipalities for the Jaslovské Bohunice region, Ing. Vladimír Púčik, and the

mayors of the nine concerned municipalities of the Jaslovské Bohunice region.

From **24 to 28 August**, within cooperation with the IAEA, experts from JAVYS, a.s. shared their experience with the Brazilian expert José Dellaman concerning the decommissioning of nuclear facilities and the management of RAW. The one-week scientific visit also included a tour of nuclear facilities.

In **August**, JAVYS, a.s., participated in the assuring of shipments of fresh nuclear fuel to operating units of the company Slovenské elektrárne.

From **2 to 30 September**, within cooperation with IAEA, JAVYS, a.s. organized the internship for Marie Sol Blanco, the member of technical cooperation program for an agency in Argentina, aimed at the presentation of the main activities of JAVYS, a.s., and in selected organizations in the SR, operating in the field of RAW management and the decommissioning of nuclear facilities.

On **11 September**, JAVYS, a.s. carried out the transport of spent fuel from Mochovce NPP, which is operated by Slovenské elektrárne, to Interim Spent Fuel Storage in Jaslovské Bohunice. Under strict security measures, it transported 96 fuel cartridges in transport containers placed on special rail carriages.

On **19 September**, open day for employees of JAVYS, a. s. and members of their families took place.

From **22 to 24 September**, representatives of the European Commission, Gianfranco Brunetti and Robert Kunde verified the status of the work in progress of the individual BIDSF projects in JAVYS, a.s. during a regular monitoring.

On **23 September**, workers of the National Nuclear Fund visited the information center of JAVYS, a.s. In the V1 NPP in the decommissio-

ning process they viewed the control room and turbine hall, in which devices were dismantled and parts of the building removed.

From **12 to 16 October**, a meeting of the international group of technical counselling focused on the decommissioning of nuclear facilities, which is covered by the Organization for Economic Co-operation and Development – the Nuclear Energy Agency (OECD-NEA), was held on the JAVYS, a.s. premises. The 59th itinerant meeting was attended by 26 experts from 12 countries of Europe and Asia.

On **29 October**, the cooperative emergency exercise entitled TUKAN 2015 was conducted in Jaslovské Bohunice, which verified the emergency response of JAVYS, a.s. Emergency Response Organization like in the past years, and confirmed the readiness of all the units for an emergency situation.

From **10 to 13 November**, JAVYS, a.s. organized an annual session for the working group of the international network of laboratories involved in the characterization of radioactive waste (LABONET), whose activity is coordinated by IAEA. The latest findings were presented by 25 representatives from 22 countries in Europe, North and South America and Australia.

On **8 December**, the Financial Directorate of the SR granted JAVYS, a.s. an award for the highest paid corporate income tax from among all companies registered in tax offices as well as within the Tax Office for the selected tax-payers within the Bratislava region, similarly as in the previous year.

In the course of 2015 JAVYS, a.s. experts addressed 14 cases of captured sources of ionizing radiation based on the Invitation for the Disposal of Radioactive Material of Unknown Origin from the competent SR authorities. It was in particular parts of the agricultural and military technology, safe deposits, fire alarms and other materials.



# Main activities of V1 NPP's decommissioning in 2015

- reinsurance and disconnection of systems,
- implementation of projects dismantling of unnecessary equipment and systems,
- management of radioactive, conventional and hazardous waste,
- implementation of projects project changes and modifications of equipment and systems used within V1 NPP's decommissioning,
- preparation of technical and tender documentation for projects of the 2nd phase of V1 NPP's decommissioning.
- building of storage capacity for the storage of materials from V1 NPP's decommissioning,
- building the infrastructure for the needs of the 2nd stage of V1 NPP's decommissioning (fragmentation and decontamination of equipment, introduction of a single computerized system and other).

An important task in the first half of 2015 was a continuation of the C7-B project focused on processing of radioactive waste – sludge and historical sorbents (concentrated in the building of auxiliary establishments), which was completed in accordance with the contract on 13 May 2015. All the historical RAW has been solidified and overall 5,417 barrels were produced.

Modification of storage areas (Project C16.1) was successfully completed, dismantling of systems performed, and the subsequent demolition of the defined scope of construction objects made within projects D3.3, D3.4 and D3.1A.

Technology in the turbine hall was dismantled (Project D 1.2) and its premises are now used for the purposes of decommissioning the warehouse and handling operations with packaging means.

Project D2 Decontamination of the Primary Circuit is important from the perspective of the overall implementation of V1 NPP's decommissioning project. For reasons on the part of the contractor, JAVYS, a.s. completed a contract with them in the course of the project implementation. At the same time, a new way of implementing decontamination work has been defined.

### Periodic document processing

In connection with the management of the V1 NPP decommissioning project, according to the requirements of the European Union and in accordance with Council Regulation (EURATOM) no. 1368/2013 dated 13 December 2013, JAVYS, a.s. developed and endorsed the following periodic documents in the course of 2015:

### Annual Work Programme – Bohunice Programme 2016

The document set out objectives, expected results, performance indicators and a timetable for a drawdown of finances during 2016. The document is the basis for the European Commission for the monitoring and follow-up reporting of V1 NPP's decommissioning progress on an annual basis.

### Monitoring report – Bohunice Program (evaluation period 01 – 09/2015)

From 2016 it will be defined on a regular basis twice a year. The document monitors the progress of the decommissioning for the reporting period with the use of performance indicators and is used for the European Commission's Monitoring Commission to compare the planned objectives of the Annual Work Plan and actual results in the reporting period.

### Monitoring and audit

Regular visits of the representatives of the European Commission in order to monitor the progress of V1 NPP's decommissioning were held in May and September 2015 at the JAVYS, a.s. premises.

In 2015, the European Court of Auditors (ECA) carried out an international performance audit in JAVYS, a.s. in connection with the financing of activities for V1 NPP's decommissioning from public resources – resources of the European Union (EU). Objective of the audit is to assess the effectiveness of the decommissioning of Ignalina, Bohunice and Kozloduj nuclear power plants co-financed by the EU since 2011.

As of 31 December 2015, the audit has not been completed and the final report has not been prepared.

# Bohunice V1 NPP International Decommissioning Support Fund

V1 NPP's decommissioning activities are co-financed by the Bohunice International Decommissioning Support Fund (BIDSF Fund). The resources from the BIDSF Fund for the implementation of individual V1 NPP decommissioning projects are drawn on the basis of grant agreements concluded between JAVYS, a.s. and the European Bank for Reconstruction and Development (EBRD). The actual signing of the agreements is preceded by the preparation of the documentation for individual projects. where JAVYS, a.s. as the recipient of aid from the BIDSF Fund first identifies the individual projects, proposes a way to identify their technical feasibility and financing, presents them to the Joint Committee of the SR and EBRD, and finally defends them through a national co-ordinator (ME SR) at the meeting of the Assembly of Contributors to the BIDSF Fund, which takes place twice a year.

# Projects which have been awarded a grant in 2015 at the Assembly of Contributors to the BIDSF Fund

### D0

Implementation of the Decommissioning Programme Using the Human Resources Available at Bohunice V1 Nuclear Power Plant (Project 8 for the 2<sup>nd</sup> half of 2015),

### **D**0

Implementation of the Decommissioning Programme Using the Human Resources Available at Bohunice V1 Nuclear Power Plant (Project 9 for 2016).

Grants awarded for these projects amounted to a cumulative amount of €10,950,000.

Towards the end of 2015, JAVYS, a.s. had 18 grant agreements signed with the EBRD to finance projects for V1 NPP's decommissioning from the BIDSF Fund's resources in the total amount of €456,560,000. Of this number, 8 grant agreements have been completed so far.

On the basis of the Implementing Decision (financial decision) to Council Regulation No. 1368/2013, no financial resources were allocated in 2015 for the implementing authority from the 2nd financial perspective (of the total €225 million). The funds will be allocated on behalf of the implementing agency only upon signing of the Delegation Agreement between the European Commission and the implementation authority in 2016.

### Contracts concluded for the BIDSF projects

### ■ B6.4A

Decommissioning Database – technology upgrade

### C9.4

Design and Construction of New Disposal Facilities for LLW and VLLW from V1 NPP Decommissioning at NRWR Mochovce

### D4.3A

Dismantling of Insulation in the V1 NPP Controlled Area

### D0

Implementation of the Decommissioning Programme Using the Human Resources Available at Bohunice V1 Nuclear Power Plant (Project 8 for the 2<sup>nd</sup> half of 2015)

### D0

Implementation of the Decommissioning Programme Using the Human Resources Available at Bohunice V1 Nuclear Power Plant (Project 9 for the year 2016)

The financial volume of the contracts awarded to these BIDSF projects represents the cumulative €32.261 million and will be implemented on an ongoing basis until the end of 2019. All contracts were concluded based on the results of the public tender carried out by procedures under the EBRD procurement rules.

### Costs and resources to cover the decommissioning of the V1 NPP for the 7/2011 - 2015 period (€)

V1 NPP	2011	2012	2013	2014	2015	Total
Total expenses (operating and investment)	26,070,182	46,307,673	44,523,089	67,078,417	51,745,947	235,725,308
Sources of coverage						
NNF including depreciation	7,835,280	7,868,682	17,556,993	19,482,985	17,821,832	70,565,772
BIDSF including D0 and depreciation	10,936,129	25,448,338	25,774,314	46,605,562	32,389,849	141,154,192
JAVYS, a.s.	7,298,773	12,990,653	1,191,782	989,870	1,534,266	24,005,344
Sources together	26,070,182	46,307,673	44,523,089	67,078,417	51,745,947	235,725,308
Of that: Slovak sources	15,134,053	20,859,335	18,748,775	20,472,855	19,356,098	94,571,116
% of financing of V1's decom	missioning fr	om the Slova	ak sources:			40.12%

### THE IMPLEMENTATION OF BIDSF PROJECTS IN 2015

### Projects in implementation during 2015

The project acronym	The course of implementation
A1.7 PMU Consultant (stage 7)	01/2015- 12/2016
A3-A Reconstruction of Area Protection System AKOBOJE	05/2011 - 03/2015
A5-A2 Modification of the JAVYS Power Supply Scheme after V1 Final Shutdown	11/2011 - 09/2015
B6.4A Decommisioning database	02/2015 - 04/2016
B7.2 Personnel Training for the Purpose of 1st Stage of V1 NPP Decommissioning	09/2013 – 04/2015
C7-A3 Erection of the New Large Capacity F&D Facility NPP V1	02/2012 - 02/2015
C7-B Treatment of Historical Waste – Sludges and Sorbents	06/2012 - 05/2015
C8 Interim Storage of RAW at Bohunice Site	01/2014 - 08/2017
C9.4 Design and Erection of New Disposal Facilities for LLW and VLLW from V1 NPP Decommissioning at NRWR Mochovce	12/2015 - 05/2019
C15-A Integrated Computer System for V1 NPP Decommissioning Logistic System	09/2014 – 04/2018
C15-B Transport and Packaging Forms for Decommissioning of V1 NPP – Stage 1	09/2013 – 05/2016
C16.1 Conditioning of Buffer Storage Areas	02/2013 - 02/2015
C17.1 Building Conditioning – Premises for Technical Documentation Centre	02/2013 - 04/2015
D0 Implementation of the Decommissioning Programme Using the Human Resources Available at Bohunice V1 Nuclear Power Plant	07/2008 – 12/2016
D1.2 Dismantling of Technical Equipment in the V1 NPP Turbine Hall	05/2013 – 07/2016
D2 Decontamination of the Primary Circuit	01/2013 – 03/2016
D3.1A Dismantling and Demolition of V1 NPP External Buildings – Phase 1	06/2014 - 09/2015
D3.3 Dismantling of Electric Power Supply Systems	07/2013 - 07/2015
D3.4 Diesel Group Dismantling	05/2014 - 06/2015
D4.3A Dismantling of Insulation in the V1 NPP Controlled Area	03/2015 - 07/2016

### Projects completed in 2015

The project acronym	The course of implementation
A3-A Reconstruction of Area Protection System AKOBOJE	05/2011 - 03/2015
A5-A2 Modification of the JAVYS Power Supply Scheme after V1 Final Shutdown	11/2011 – 09/2015
B7.2 Personnel Training for the Purpose of 1st Stage of V1 NPP Decommissioning	09/2013 – 04/2015
C7-A3 Erection of the New Large Capacity F&D Facility NPP V1	02/2012 – 02/2015
C7-B Treatment of Historical Waste – Sludges and Sorbents	06/2012 – 05/2015
C16.1 Conditioning of Buffer Storage Areas	02/2013 - 02/2015
C17.1 Building Conditioning – Premises for Technical Documentation Centre	02/2013 - 04/2015
D3.1A Dismantling and Demolition of V1 NPP External Buildings – Phase 1	06/2014 – 09/2015
D3.3 Dismantling of Electric Power Supply Systems	07/2013 – 07/2015
D3.4 Diesel Group Dismantling	05/2014 – 06/2015

As of 31 December 2015, a total of 46 projects were completed (of which 9 in 2015), 9 projects were in the implementation process (a total of 18 projects in 2015), 11 projects for V1 NPP's decommissioning were in preparation for the procurement and in the procurement procedure, which is in accordance with the V1 NPP decommissioning plan.

### **A1 NUCLEAR POWER PLANT**

The decommissioning of the A1 NPP nuclear facility is carried out in a continuous decommissioning process divided into five successive stages, with completion scheduled for decommissioning of the A1 in 2033. Currently the final part of the 2nd stage of A1 plant's decommissioning is being done, established for the period of 2009 to 2016, which will continuously be followed by the 3<sup>rd</sup> and 4<sup>th</sup> stage of the A1 NPP's decommissioning.

In 2015, work bound to increase the level of a safer radiation status in the crashed A1 NPP was performed within the 2nd stage of A1 NPP's decommissioning, as well as reduce the risk of its impact on operating personnel and the environment. By continuous reduction in the inventory of radioactivity through decontamination and disassembly of technological devices and systems, building structures of decommissioned A1 NPP objects, and continuation in the processing of historical operating RAW, JAVYS, a.s. successfully met the objectives of the 2nd stage of A1 NPP's decommissioning in year 2015 stated in the Plan for the 2nd Stage of A1 NPP's Decommissioning, approved by NRA SR and PHA SR.

The activities carried out in 2015 were aimed in particular at:

- decommissioning the technological devices of systems and construction units of external CO<sub>2</sub> gas economy structures, active water cleaning station, repository of liquid RAW, repository of solid RAW, active piping canals and repository of low active sludge,
- the processing of liquid RAW from the external A1 NPP tanks and decommissioning of external single-barrier tanks,
- the decommissioning of the technological equipment in the main production building in the range of the decontamination and dismantling of heavy water equipment and charging fa-

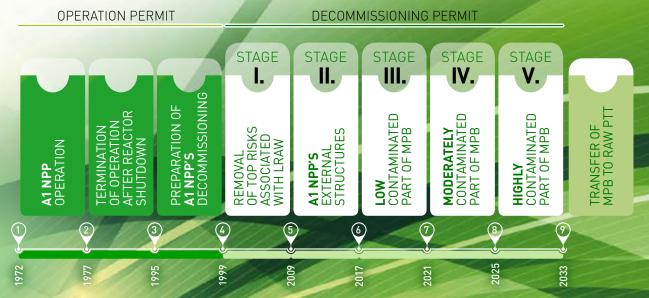
cilities, adjustment and supplementation of the line for the vitrification of spent nuclear fuel coolant, continuous tackling of decommissioning of long-term storage for spent nuclear fuel (SNF) from A1 NPP by processing liquid RAW from the enclosures of long-term storage of this SNF,

- dealing with contaminated soil and concrete through their recovery, sorting, and preparation for storage in the repository for very low contaminated waste,
- the construction of a repository for very low active waste at Mochovce NRWR,
- monitoring the impact of A1 NPP's decommissioning on the environment, including monitoring and rescue pumping of groundwater,
- cutting of enclosures for the long-term storage of SNF,
- cutting long-term SNF storage with fixed chrompik on the fuel adjustment device,

- pretreatment of RAW from A1 NPP's decommissioning into a form acceptable for its storage and processing:
- ▶ the burning of solid and liquid RAW,
- pressing the RAW using a high pressure press
- processing of contaminated electrical cables,
- decontamination and fragmentation of RAW,
- the processing of liquid RAW at the cleaning station,
- processing of ventilation filters,
- modifying the RAW by cement work in the fiber concrete containers.

The set plan of activities for 2015 in the area of A1 NPP's decommissioning, including RAW management from decommissioning A1 NPP's decommissioning has been satisfied in full, under compliance with the principles of nuclear safety, radiation protection, occupational safety and health, fire protection and environmental protection.

### Operation and decommissioning of A1 NPP



14

# RADIOACTIVE WASTE MANAGEMENT SPENT NUCLEAR FUEL MANAGEMENT

### RADIOACTIVE WASTE MANAGEMENT

The individual activities within the processes of dealing with radioactive waste (RAW) were carried out in the following nuclear facilities of the company subject under compliance with nuclear safety, radiation protection, occupational safety and health, fire protection and environmental protection:

- RAW PTT Radioactive Waste Processing and Treatment Technologies in Jaslovské Bohunice
- **FP LRAW** Final Processing of Liquid RAW in Mochovce
- **NRWR** National RAW Repository in Mochovce

### Treatment and processing of RAW

Implementation of the A1 NPP's and V1 NPP's decommissioning process itself, management of radioactive waste from operating units V2 NPP and EMO 1,2, which are operated by Slovenské elektrárne, a.s., as well as the disposal of radioactive waste from non-nuclear facilities is crucial for the RAW PTT nuclear facility in Jaslovské Bohunice in view of its use. It consists of the Bohunice Radioactive Waste Treatment Centre bitumen line, low active water cleaning station, workplaces for radioactive waste classification, fragmentation and decontamination of radioactive materials, workplaces for the processing of ventilation filters and used electrical cables.

Facilities for the processing of radioactive concentrates and saturated ionexes from the operation of the EMO 1.2 are operated in the nuclear facility Final Processing of Liquid RAW (FP LRAW) in Mochovce.

Low active RAW are processed in the RAW PTT and FP LRAW nuclear facilities and then inserted and modified by cement work into fiber concrete containers and transported to JAVYS, a.s.' National Repository of RAW in Mochovce. In 2015, 380 pcs of fiber concrete containers with RAW were modified in RAW PTT and 135 in FP LRAW.

### **Amount of processed RAW**

Nuclear facility	Type of RAW	Total
	Combustible SRAW	103.077 t
	Combustible LRAW	18.666 m <sup>3</sup>
DAW DTT	Pressable RAW	290.487 t
RAW PTT	Metal RAW	240.576 t
	Liquid RAW	366.021 m <sup>3</sup>
	Used air filters	16.499 t
FP LRAW	Liquid RAW	140.900 m <sup>3</sup>
FF LRAVV	Saturated ionexes	26.000 m <sup>3</sup>

### **Transport of RAW**

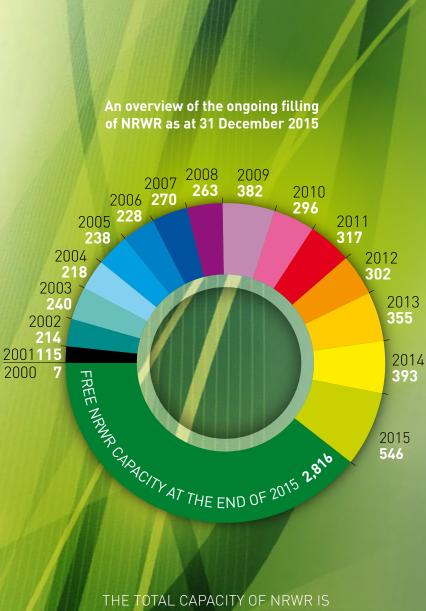
In the course of 2015, 516 transports of RAW took place in certified transport packaging units: 200 l Meva barrel, ISO container, shipping containers PK I / DOW, PK II / SLUDGES, PK III / BARRELS, PK / SK and FCC.

### Storage of RAW

National Radioactive Waste Repository in Mochovce serves for the final storage of low activity RAW resulting from the operation and decommissioning of nuclear facilities on the territory of the SR, as well as institutional RAW and CRAM. Fiber concrete containers with RAW treated by cement work are transported from the nuclear facilities RAW PTT and FP LRAW and stored in this repository. In the course of 2015, 546 containers with RAW were stored in the second double row of storage boxes.

### Transport and storage of the FCC at NRWR in 2015

Modification of R (pc		The total number of FCC stored in the NRWR
<b>RAW PTT</b>	FP LRAW	(pcs)
406	140	546



7,200 FIBER CONCRETE CONTAINERS

### **IRAW and CRAM Management**

JAVYS, a.s. is an organization authorized to deal with radiators and radioactive waste of unknown origin, unused radiators and radioactive materials. In 2015, 14 captures of sources of ionizing radiation of unknown origin were carried out, which represented, for example, parts of the agricultural and military technology, part of the pipes, and filling of safe deposit walls. In terms of contamination, for example radionuclides <sup>60</sup>Co and <sup>238</sup>U-rad and <sup>226</sup>Ra were identified.

At the end of 2015, the company took over a completed investment project from a contractor - IRAW and CRAM Management Facility in the NRWR location, ensuring the final article in comprehensive and optimal handling of IRAW and CRAM coming from all over the SR, pursuant to SR Government Resolution No. 610/2009 and the document Proposal for a Procedure for Treatment of IRAW and CRAM and in the Slovak Republic. Commissioning of this device means an increase in reliability, continuity and security in the implementation of activities in the IRAW and CRAM management system in the Slovak Republic.

### SPENT NUCLEAR FUEL MANAGEMENT

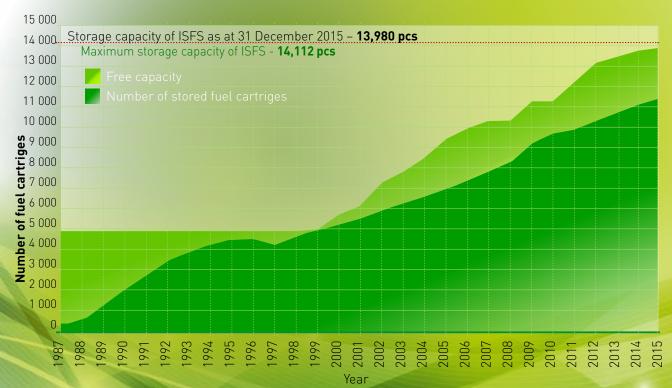
Spent nuclear fuel produced in the reactor units of the Slovak nuclear power plants is then transported and stored in long-term nuclear facility Interim Spent Fuel Storage in Jaslovské Bohunice.

### The transport of spent nuclear fuel in 2015

SNF Producer (r	number of pcs)	The number of	Number of transported
SE, a.s. EBO V2	SE, a. s. EMO 1,2	circulations	fuel cells (pcs)
153	96	6	249

In 2015, spent nuclear fuel was stored in three storage pools in KZ - 48 and T-13 type tanks. The fourth pool fulfilled the function of the reserve pool. Overall, 11,534 fuel cells were stored in ISFS as at 31 December 2015.

### An overview of the ongoing filling of ISFS with spent fuel as at 31 December 2015





### **Nuclear safety**

Compliance with the nuclear safety requirements is a priority for JAVYS, a.s. It is declared in the policy and the objectives, which belong to the senior documents of the company's integrated management system.

Requirements in the legislation of the Slovak Republic and the supervisory authorities for nuclear safety were met in respect of all nuclear facilities, which the company operates in Jaslovské Bohunice and Mochovce. In 2015, the nuclear facilities were operated in accordance with a valid and current security documentation approved by the supervisory authorities of the SR, without prejudice to the limits and conditions for their safe operation or decommissioning. The safety evaluation of the operation of JAVYS, a.s.'s nuclear facilities was carried at prescribed intervals through operational security indicators. The achieved evaluation confirmed the professional work of the staff and high reliability of technological equipment.

In accordance with NRASR Decree No. 33/2012, comprehensive periodic safety assessment of the current state for the plant's second decommissioning stage was carried out on the A1 NPP facility. In terms of security, no significant circumstance was identified which would obstruct the fulfilment of the decommissioning schedule, and A1 NPP can continue in the decommissioning also in the next period during the 3rd and 4th stage.

The first comprehensive periodic evaluation of the current state's nuclear safety started on the FP LRAW nuclear facility 8 years after its entry into service. On an international scale, comprehensive periodic evaluation of the nuclear safety of nuclear facilities is a standard practice. Its implementation is required by the European Commission and international organizations and associations concerned

with nuclear safety. The aim of the evaluation is the comparison of the state of nuclear safety in the FP LRAW nuclear facility with the current requirements of the SR legislation for nuclear safety and good practices according to the safety standards of the International Atomic Energy Agency and the requirements of the WENRA Western European Nuclear Regulators Association.

Safety documentation was drawn up to permit the construction of the new nuclear facility Interim Storage of RAW in the Bohunice site and approved by NRA SR Decision No. 489/2015. Interim Storage of RAW will be put into operation by 2018.

Safety documentation was drawn up for the operation of the NRWR nuclear facility within the scope of commissioning of the section for storing very low active waste – 1st stage, consisting of: 12-BSP-001 Preoperative safety report for Mochovce NRWR and operating instructions 12-LAP- 001 The Limits and Conditions for Safe Operation of NRWR nuclear facility to demonstrate the preservation of security in the storage of RAW in NRWR even after the implementation of the changes on the nuclear facility caused by the mentioned project.

NRA SR inspectors carried out a total of 38 inspections during 2015. Of that:

- 17 inspections aimed at supporting activities for JAVYS, a.s.
- 7 inspections in V1 NPP
- 6 inspections in A1 NPP
- 1 inspection in RAW PTT
- 3 inspections in ISFS
- 1 inspection in FP LRAW
- 3 inspections in NRWR

In 2015, in conjunction with the Euratom inspectors, IAEA inspectors carried out 4 physical inventories in the areas of nuclear materials in V1 NPP, A1 NPP and ISFS, 1 inspection concerning the procedure for A1 NPP's decommissioning and 1 inspection aimed at servicing the supervisory equipment of ISFS nuclear facility.

The SR Nuclear Supervision Authority issued a total of 59 decisions for JAVYS, a.s. in 2015. Through Decision No. 489/2015 it authorized the construction of the RAW Interim Storage in the Bohunice site.

In view of the low number of operating events that have an impact on nuclear safety, 2015 can be assessed very positively. All operating events were less significant. 11 operational events were registered, of which one event was subject to report to the supervisory authority within the meaning of the Atomic Act. According to the INES international nuclear events scale, all events were classified at the level of events without security importance (outside the INES scale).

### **Radiation protection**

All the relevant activities from the perspective of radiation protection shall be subject to the optimization of batch loads within the meaning of applicable Slovak legal regulations and the internal quality assurance system of JAVYS, a.s. prior to their authorization, during implementation and after their completion.

Systematic monitoring of the radiation characteristics of the working environment, operational and official monitoring of accepted doses, as well as the compliance with the radiation protection rules and the ALARA principle in the performance of activities were performed in the working environment of controlled zones of JAVYS, a.s. nuclear facilities also in 2015.

One of the stringent monitoring indicators of the radiation protection level for persons working in controlled zones of JAVYS, a.s. is the maximum individual effective dose that does not exceed the annual limits (50 mSv).

Control activities in the field of radiation protection was carried out by the Public Health Authority (PHA) of the SR. In V1 NPP within the inspections, it focused in particular on the implementation of projects in the 2nd stage of the decommissioning (completion of the project on the treatment of sludge and sorbents from the operation of V1 NPP and decontamination project of V1 NPP's primary circuit). At the same time it verified the compliance with the radiation protection rules in the controlled zone and the system of material release from the administrative inspection system. Verification in RAW PTT. A1 NPP and ISFS nuclear facilities was primarily related to checking the status of the prepared applications and the assessment of the facts declared in the work programs, which were discussed by the ALARA Commission and referred to the PHA SR for approval. During the inspections in the NRWR and FP LRAW, PHA SR assessed the calibration of apparatuses, inputs and controlled area mode.

Inspection regarding the impact of the operation on the population's radiation burden is monitored by JAVYS, a.s. through Ambient Radiation Control Laboratories in Trnava and in Levice, be-

longing under Slovenské elektrárne, a.s. The laboratories monitor the surroundings by means of a network of monitoring stations connected to three circuits around nuclear facilities in Jaslovské Bohunice and by laboratory measurements of samples from the environment. The results of measurements of samples and analysis of almost 1500 samples of air, soil, water, vegetation and agricultural products for the year 2015 show a minimal effect of operating nuclear facilities and facilities in the decommissioning process on the surroundings.

The effect of operation on batch load of the population is evaluated by JAVYS, a.s. on a guarterly basis through a special program. The program, approved by the national supervisory authority of PHA SR, applies internationally accepted models of the spread of radioactive substances, takes into account local conditions and uses the current statistical data. All gaseous and liquid discharges from nuclear facilities of JAVYS, a.s. and the actual weather situation enter the program. The maximum calculated individual effective dose E values for 2015 are at the level of 0.03% in a populated area, and at the level of 0.04% in uninhabited zone from an annual limit of exposure per representative individual from the population. The calculated values of individual effective doses are much lower than the level of radiation burden on the population due to natural background and medical diagnostic tests.

### The maximum individual effective dose E (mSv) in 2015

JAVYS, a.s.	KP-A	% of the limit	KP-V	% of the limit	KP-U	% of the limit
Employees of JAVYS, a.s.	8.444	16.890	0.621	1.240	3.317	6.634
Suppliers	11.287	22.574	5.078	10.160	0.248	0.496

### **Explanations:**

KP-A controlled zones on the premises of the A1 NPP in the decommissioning process and on the premises of the technology for the processing of RAW and storing of spent nuclear fuel in Jaslovské Bohunice

KP-V the controlled zone of the decommissioned V1 NPP in Jaslovské Bohunice

KP-U the controlled zone of NRWR and FP LRAW in Mochovce

### Occupational safety and health

Occupational safety and health are secured in JAVYS, a.s. in accordance with the requirements of the Labor Code, the Act on occupational safety and health, and the internal company regulations.

2 registered occupational accidents were recorded in 2015. 3 accidents of JAVYS, a.s. employees were registered. These accidents did not require sick leave.

Within the meaning of Par. 6, Sec. 2, Letter a) of Act No. 124/2006 on occupational safety and health and on amendments to certain laws, as amended, a risk assessment on all premises and workplaces of JAVYS, a.s. was carried out in the company.

20 workplaces with a ionizing radiation, noise, aerosols and vibration risk factor are identified in the company. 620 employees worked at the given workplaces, of which 65 were women. Employees at the risk workplaces are provided with increased care. They are under the supervision of the labor health service, which monitors and assesses their health status and health competence in relation to the work.

In the course of 2015, inspectors of the Nitra Labor Inspectorate carried out five inspections in JAVYS, a.s., aimed at the pursuit of occupational activities of supply organizations.

### **Protection against fire**

In 2015, no fire was recorded in JAVYS, a.s.

Tasks in the field of fire protection in JAVYS, a.s. were provided by persons with professional competence – fire protection engineers.

In 2015 the fire protection technicians carried out 473 preventive fire inspections, which were aimed at compliance with fire regulations in all of the company structures.

Particular attention in the field of occupational safety and health and fire protection was given to the structures, where the dismantling of technological units and removal of construction objects are being done.

As a result of progress in the process of V1 NPP's decommissioning, an analysis of fire danger in JAVYS, a.s. was prepared by a professionally capable person

### **Emergency planning**

In the light of the requirements of the Atomic Act and legislation pertaining to emergency planning in JAVYS, a.s., a separate emergency response entity was created and headed by JAVYS, a.s.'s emergency commission, competent in dealing with the events on all of the nuclear facilities of the company in Jaslovské Bohunice. Work shift emergency exercise of staff at all nuclear facilities were regularly carried out in 2015 (together 32 shift emergency exercises). Emergency exercise VIRGO 2015 aimed at practicing procedures for the transport of radioactive materials on the territory of the nuclear facility is required in the emergency transport procedure.

The state of emergency preparedness in JAVYS, a.s. at the Jaslovské Bohunice site was verified by cooperative complex-wide emergency exercise TUKAN 2015, which was aimed at addressing the 2nd stage events on the V1 NPP and 3rd stage events on the V2 NPP. In the framework of the complex-wide emergency exercise, all employees of JAVYS, a.s. and persons located on the territory of the company's nuclear facilities during the exercises were involved in the training, including employees of the supplier organizations. During emergency exercises of work shifts and drills of professional groups, the emergency response organization demonstrated its functionality, and there were no deficiencies.

In 2015, changes in the internal emergency plan for nuclear facilities NRWR were approved based on the NRA SR Decision No. 783/2015, new area of threat for the NRWR was approved though NRA SR Decision No. 784/2015, and emergency transport procedure, 8-PLN-012, issue no. 3 was approved through MTCRD SR Decision No. 121/2015.

The following sizes of threat areas are currently approved for nuclear facilities of JAVYS, a.s. by the Nuclear Supervision Authority of the SR:

- common threat area to the V1 NPP, A1 NPP, RAW PTT and ISFS in the Bohunice site is defined by a barrier of guarded area of JAVYS, a.s. nuclear facilities in the Bohunice site, approved by NRA SR Decision No. 719/2014, dated 26 September 2014,
- area of threat to the NRWR in Mochovce is defined as a territory bounded by NR the boundary of the nuclear facility, defined by the barrier guarded space, i.e. NRWR's fencing in Mochovce, approved by NRA SR Decision no. 783/15 from 17 December 2015,
- area of threat to FP LRAW in Mochovce defined as a territory bounded by the boundary of nuclear facilities belonging to Slovenské elektrárne, a.s., Mochovce Nuclear Power Plant, the race, defined by the barrier of this nuclear facility's guarded area, approved by NRA SR Decision No. 5/2007 dated 8 January 2007.

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



### Water management

In the field of water policy, the consumption of drinking water was slightly reduced in 2015 in comparison with the previous year, which was also reflected in a slight reduction of the quantity of wastewater discharges:

- the consumption of drinking water (Jaslovské Bohunice site, Trnava, Bratislava): 53,523 m³, which represents a decrease by 10.3%
- cooling water consumption (Jaslovské Bohunice, Mochovce site): 272,735 m³ (consumption comparable to the year 2014)
- the amount of waste water discharged into Váh recipient 444,345 m³, i.e. a slight decrease by 3.27%.

Discharge of rainwater to the Dudváh recipient is permitted without quantitative restrictions within the meaning of the applicable decision on wastewater discharges.

Continuous monitoring and control analyses of wastewater in an accredited laboratory have confirmed that the level of pollution in discharged wastewater is below the limit values laid down by the national water administration authorities. With regard to the quality of discharged wastewater, the obligation to pay the charges for the discharge of waste waters did not arise for JAVYS, a.s. in 2015. The cost of water management in the amount of €138,845.19 represents a slight reduction compared to last year (about 0.5%).

### Air protection

JAVYS, a.s. operates 10 sources of air pollution in all categories – 1 large source, 5 medium-sized sources and 4 small resources.

The total emissions released from all sources of air pollution accounted for:  $SO_2$  – 1.205 kg,  $C_{org}$  – 12.146 kg, particulate matter – 57.038 kg, CO – 76.593 kg and  $NO_X$  – 205.933 kg. 59 t of greenhouse gases ( $CO_2$ ) were released into the atmosphere from the operation equipment for combustion of gaseous and liquid fuel in 2015.

In 2015, according to the approved procedures for the calculations of the amount of pollutants, JAVYS, a.s. was not obliged to pay a fee for large and medium-sized sources of air pollution. The company was imposed the charge of  $\mathfrak{C}5$  upon for air pollution from small sources.

All set limits and conditions were complied with during the operation of abovementioned sources of air pollution in the course of 2015.

### Waste management

In 2015, JAVYS, a.s. produced 418.53 tons of inactive waste, of which 89.67 tons was recovered, which represents 21.4%. The remainder was disposed of. The total volume of produced waste was in the following categories:

- other waste in a quantity of 333.76 tons,
- hazardous waste in a quantity of 20.02 tons,
- municipal biodegradable waste in a quantity of 64.75 tons.

Waste production is dependent on the decommissioning process and compared to 2014 it was 366 tons lower, representing a reduction by 47.65%.

Waste management in 2015 took place in accordance with Slovak legal requirements and internal regulations of the company.

### **Environmental impact assessment**

In the light of the requirements of the Act on environmental impact assessment (Act No. 24/2006), the following activities were implemented in 2015:

### The assessment processes were completed by the release of the final opinion by the Slovak Ministry of the Environment

- The decommissioning of the A1 nuclear power plant – 3<sup>rd</sup> and 4<sup>th</sup> stage (November 2015)
- Facilities for re-melting of metallic radioactive waste in Jaslovské Bohunice (January 2015)

# The continuation of the process for the assessment of the proposed activity

 The completion of the storage capacity for interim spent fuel storage in Jaslovské Bohunice

Intense communication with representatives and the public of the affected municipalities was carried out by various means during the implementation of the above processes (meetings, flyers, magazine, company website, consultation meetings, and public consulting). International consultations with Hungary and Austria were also held.

### **STRATEGIC AREAS**

For the fulfullment of the strategy, JAVYS, a.s. has set the following strategic areas:

# Strategy in the field of RAW and SNF management and transport of RAW, fresh nuclear fuel and SNF is:

to introduce such a system for the RAW and spent nuclear fuel management and transport of RAW, as well as fresh and spent fuel, which is in line with the Strategy for the Final Part of the Peaceful Use of Nuclear Energy in the SR, ensure the effective management of RAW and SNF, ensure the transport of RAW, fresh nuclear fuel and spent nuclear fuel produced in nuclear facilities in the SR, collection, treatment and transport of the institutional RAW, captured radioactive materials, as well as the provision of services in the front and rear parts of the nuclear fuel cycle on a commercial basis.

# Strategy in the field of decommissioning of nuclear facilities is:

■ to carry out the process of A1 NPP's decommissioning safely, efficiently and reliably in accordance with Updated Conceptual Decommissioning Plan for A1 NPP (currently Plan of the 2nd stage of A1 NPP's decommissioning), and V1 NPP in accordance with the Strategy for V1 NPP's decommissioning (currently the 2nd stage Plan) and thus release the site for subsequent industrial use.

# Strategy in the field of nuclear and other facilities is:

to safely, efficiently and reliably operate nuclear facilities for the management of RAW, IRAW, CRAM and SNF while complying with the conditions of nuclear safety, radiation protection, OSH and environmental protection, so as to avoid violating the limits and the conditions during the operation of these facilities.

# Strategy in the field of safety and environmental protection is:

• to perform support services, which permanently ensure that all activities related to nuclear, radiation, and standard security, protection, and defense, environmental protection, and emergency planning in accordance with the decisions of the supervisory authorities of the SR for the processes of operation and decommissioning of NF and the disposal of RAW and SNF. By implementing environmental objectives and environmental management programs, ensure continual improvement of the status of the environment and prevention against its pollution in the conditions of JAVYS, a.s.

### Strategy in the field of economy and services is:

■ to create and maintain an economically prosperous, stable and financially healthy company. Through suitable pricing policy and active marketing, ensure an adequate production of revenues from the sales of nuclear and non-nuclear services and commercially usable assets from NPP's decommissioning in the interests of further development of JAVYS, a.s., increasing its value and satisfying the shareholder requirements.

# Strategy in the field of the company development is:

to participate in the new energy projects in accordance with the Energy Security Strategy of the SR and Strategy for the Final Part of the Peaceful Use of Nuclear Energy in the SR. Through the modernization of technologies for the processing and treatment of RAW, expansion of storage capacities of RAW and SNF, and RAW storages, ensure the management of RAW and SNF in accordance with the Strategy for the Final Part of the Peaceful Use of Nuclear Energy in the SR.

# Strategy in the field of corporate governance and human resources is:

to maintain and continuously improve the certified Integrated management system according to ISO 9001; ISO 14001; OHSAS 18001 and ISO/IEC 20000-1 as an essential tool for the effective management of the company, to minimize the negative effects on the environment, improve the working environment and ensure risk management in the field of environmental protection and OSH. Through effective management, maintain the optimum number of employees to achieve the maximum exploitation of the potential of human resources, its own know-how, perform professional personnel training in accordance with the planned development and the company needs.

### Strategy in the field of commercial activities is:

at processing and treatment of RAW and IRAW, consultancy services in the field of decommissioning of nuclear facilities and the management of RAW and SNF, in order to increase sales of the company.

# INTERNATIONAL COMMERCIAL ACTIVITIES

Also in 2015, JAVYS, a.s. sought to expand apply itself at international markets in the field of the final part of nuclear energy and to offer its commercial services. A separate department was allocated for these activities in order to achieve the stated objective, which continued in a systematic action in this area with the support of the company's other professional departments.

JAVYS, a.s. has engaged and continued in a number of international tenders in the field of radioactive waste processing and provision of consultancy services for the decommissioning of nuclear facilities and management of radioactive waste and spent fuel.

We can mark 2015 as significant in the field of international commercial activities. JAVYS, a.s. signed a contract for the incineration of radioactive waste from Dukovany and Temelín nuclear power stations for a period of four years, and started the implementation of the project already this year. A great success is the contract for the processing of saturated sorbents and sludges from the Italian nuclear power plant Caorso. The project is implemented by the JAVYS, a.s. consortium – Consorzio Stabile Ansaldo New Clear. For the third time, JAVYS, a.s. was successful in the project for the consultancy service to build a repository of low and medium active wastes in Iraq, which it handles together with two German companies, NUKEM Technologies GmbH and DBE Technology GmbH.

In 2015, JAVYS, a.s. conducted services for foreign customers within the meaning of the approved contracts from 2012 and 2013. For DMS, s. r. o. it provided technical and emergency group support during the import of fresh nuclear fuel into the SR for the operated nuclear power plants. Furthermore, it ensured the processing of operating radioactive waste through high-pressure pressing and incineration for the Czech company ČEZ. A pilot project on the treatment of institutional radioactive waste for the Italian company Nucleco, S.p.A. was carried out at the end of the year in accordance with a signed agreement from 2014.

Financial volume for contracted performances of JAVYS, a.s. in the implemented projects represents €29.7 million and the total value is €42.5 million.

Part of the strategy regarding the offer of commercial activities was to expand contacts with other companies that are already established on the market and account for possible partners in future tenders and projects.

2015 showed that the international market has space for commercial activities of JAVYS, a.s. The expansion of service offerings is another opportunity for its growth and establishment on the market of the services offered in an important segment of the nuclear industry.





# REPORT ON BUSINESS ACTIVITIES AND ASSETS

Jadrová a vyraďovacia spoločnosť, a. s. is a joint stock company 100% owned by the state, which carries out the rights of a shareholder through the Ministry of Economy of the SR. The Mission of JAVYS, a. s. is to carry out activities within the meaning of the approved National Strategy and National Policy of the SR for the treatment of RAW and SNF in a safe, reliable and economic manner, and to efficiently decommission A1 NPP and V1 NPP. provide nuclear services in the areas of spent nuclear fuel and radioactive waste management through the optimal use of existing processing capacities of RAW PTT and to provide related support. JAVYS, a.s. provides additional services to third parties, resulting from the concluded service and lease agreements.

The main activities of JAVYS, a. s. in 2015 were covered by the provided provided NNF funds, provided BIDSF funds and from sales and revenue derived from commercial activities.

Funds from the NNF in a total limit value of €69,704,745 were set in 2015 based on the approved Slovak state budget for 2015. Based on the decision of the General Assembly, the company sent voluntary contribution on behalf of the NNF on 24 April 2015, amounting to €873,950, thanks to which the amount provided from the NNF in 2015 subsequently increased to €70,578,695. The drawing of funds from the NNF in 2015 for the operation was in the amount of €57,174,218 (from budget for 2015: €56,370,858 and from the budget for

2016: €803,360) and for investments in the amount of €7,406,089 (from budget for 2015: €6,613,095 and from the budget for 2016: €792,994). In this way, JAVYS, a.s., paid for all reasonably incurred costs in 2015.

In the context of the drawdown from the BIDSF funds for projects related to V1 NPP's decommissioning, the company received the total sum of  $\[ \in \] 29,079,918$  in 2015, of which  $\[ \in \] 18,624,594$  for the operating part, and  $\[ \in \] 10,455,323$  for the investment part. From that, the financial resources for the implementation of the decommissioning program with the use of human resources available in V1 NPP to the BIDSF D0 project were in the amount of  $\[ \in \] 6,732,249,$  of which  $\[ \in \] 6,501,130$  for the operational part and  $\[ \in \] 231,119$  for the investment part.

Sales and revenues from commercial activities represent sales from the commercial management of RAW and SNF, and other revenues from concluded service and lease agreements and from sales of non-essential recoverable assets from A1 and V1 NPP's decommissioning. For 2015, the company reported total revenues from its own performances amounting to €45,952,171, of which direct sales for the transport, storage and processing of RAW and for management of SNF for V1 NPP, V2 NPP and EMO 1, 2 NPP reached the amount of €19,828,255 and services to third parties accounted for the amount of €1,193,801. Reported revenues from the processing of historical sludge and sorbents in V1 NPP were in the amount of € 17,964,896. The company reached revenues in the amount of €6,469,425 from the activation of material and LTA, the sale of non-essential recoverable assets from A1 and V1 NPP's decommissioning and revenues arising from lease and other contracts and other performances of JAVYS, a.s.

The cost of the company's production consumption in 2015 was recognized in the amount of €44,932,697. Actual personal expenses were recognised in the amount of €24,358,202 (from that, the amount of €22,588,614 represented labor costs and the amount of € 1,769,588 corresponds to the reserve for future employee benefits), accounting depreciation of fixed assets and provisions for fixed assets amounted to € 14,341,654 (total LTA and LIA depreciation amounted to €20,029,422 and provisions for assets were in the amount of €5,687,768).

As of 31 December 2015, the company registered total assets amounting to € 1,550,192,357. From that, long-term tangible assets of the company amounted to €143,340,113. Long-term financial assets were recognized in the amount of €111,216,772. These assets are related to the deposit of JESS, a.s., which was founded in 2009 as a joint venture of JAVYS, a.s. and ČEZ Bohunice. The value of the financial assets as of 31 December 2015 was overvalued based on the reduction of the equity capital of JESS, a.s. by €383,596.

The biggest item of the company's liabilities as of 31 December 2015 was provisions for decommissioning and disposal of A1 and V1 nuclear power plants, provisions for the liquidation and disposition of non-energy equipment and provisions for future employee benefits (retirement and severance payments within the meaning of the Collective Agreement). As of 31 December 2015, reserves totalling to €1,195,502,104 were recognized. A portion represents reserves for the decommissioning and disposal of A1 and V1 nuclear power plants in the amount of €1,064,811,153. This part of the reserves is covered by claims from the BIDSF and NNF.

The value of the company's equity capital as of 31 December 2015 amounted to €224,344,485, representing 14.47% from the company's total assets.

The achieved economic results are set out in the financial statements, audited by an independent auditor who without reservations.

### TRADE AND SERVICES

Active trades of JAVYS, a.s. were oriented mainly on the following areas in 2015:

 The provision of services in the field of radioactive waste and spent nuclear fuel management

The provision of services in the field of radioactive waste and spent nuclear fuel processing and storage is in particular the subject of a business relationship with companies SE, a.s., ČEZ, a.s. a VUJE, a.s., NUCLECO, S. p. A. and SOGIN, S. p. A.

 The provision of services and other activities necessary to ensure nuclear safety, radiation safety and operational reliability

JAVYS, a.s. provides services that are essential to ensure the safe operation of nuclear power plants and relate in particular to the training of staff for nuclear energy facilities, personal dosimetry and radiation protection, equipment calibration, services related with the common use of facilities, services in the field of emergency planning and preparedness, transport services, the supply of steam and rental of non-residential premises and equipment for SE, a.s.

### The provision of leases of residential and non-residential premises as well as related services

Rental of properties and commercial premises is provided on a commercial basis mainly to the current contractors of works and services for JAVYS, a.s., but also to entities who do not have a a supplier relationship with JAVYS, a.s.

Leased properties are used primarily as offices, changing rooms, warehouses, assembly halls, apartments, or rented lands and areas for parking.

 The provision of other services and the sale of non-essential assets

In the context of its business activities, JAVYS, a.s. also provides other services, in particular: the procurement, transport, processing and storage of IRAW, joint use of rail siding, provision of training and consultations, dosimetry services, supplies of demineralized water, water and sewerage, heat, electricity, provision of personal protective equipment, etc.

A major source of income was the sale of unneeded and unemployable property. 11 sales of non-essential assets and unnecessary stocks were made (or finished) in 2015, which have generated sales turnover in the total volume of €897,213.75 (excluding VAT).

Summary revenues from the main business activities for 2015 amounted to €26,507,000. From that, revenues for services regarding the management of RAW and SNF accounted for approximately 81.65% and revenues for other services for 18.35%.

Úč POD

Annex No.1 do Decree No. MF/23377/2014-7

### FINANCIAL STATEMENTS



of Enterprises in the Double-Entry Bookkeeping System

Prepared as at	3	1	1	2	2	0	1	5

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 A B C D E F G H I J K L M N O P Q R S T O V X Y Z O 1 2 3 4 5 6 7 8 5 1 1 2 2 0 2 2 0 3 6 5 9 9 1 2 3 4 5 6 7 8 5 1 2 0 1 2 3 4 5 6 7 8 5 1 2 4 7 2 1 1 2 3 4 5 6 7 8 5 1 2 4 7 2 1 1 2 3 4 5 6 7 8 5 1 2 4 7 2 1 1 2 3 4 5 6 7 8 5 1 1 2 4 7 2 1 1 2 3 4 7 2 1 1 2 4 7 2 1 1 2 3 4 7 2 1 1 2 4 7 2 1 1 2 3 4 7 2 1 1 2 4 7 2
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Accompanying Parts of Finacial Statements  X Balance Sheet (Uć POD 1-01) X Income Statement (Uć POD 2-01) X Notes (Uć POD 3-01)  (in whole Euros) (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  Postal Code  Municipality  8 2 1 0 2 B r a t i s l a v a  L o d d . : S a , v l . č . : 4 6 4 9 A  B Phone Number  Fax Number  Prepared on:  Approved on:  Approved on:  Approved on:  Approved on:  Signature of a Member of the Statutory Body of the Reporting Entity or a Natural Person Acting as a Reporting Entity or a Natural Person Acting as Re
Accompanying Parts of Finacial Statements  X Balance Sheet (Uć POD 1-01) X Income Statement (Uć POD 2-01) X Notes (Uć POD 3-01)  (in whole Euros) (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  Postal Code  Municipality  B 2 1 0 2 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 l , o d d . : S a , v l . č . : 4 6 4 9 ,  B  Phone Number  Fax Number  O 3 3 / 5 3 1 3 2 8 4  O 3 3 / 5 3 1 2 4 7 2  Frepared on:  Approved on:  Signature of a Member of the Statutory Body of the Reporting Entity or a Natural Person Acting as a Reporting
X Balance Sheet (Uć POD 1-01) X Income Statement (Uć POD 2-01) X Notes (Uć 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 Postal Code Municipality  B 2 l 0 2 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 l , o d d . : S a , v l . č . : 4 6 4 9 , B  Phone Number  Fax Number  Prepared on:  Approved on:  1 5 0 2 2 0 1 6 Signature of a Member of the Statutory Body of the Reporting Entity or a Natural Person Acting as a Reporting
Commercial Register and Number   Fax Number
Commercial Register and Number   Fax Number
Seat of the Reporting Entity   Street
Seat of the Reporting Entity  Street  Tomášikova  Postal Code  Municipality  8 2 1 0 2 Bratislava  Commercial Register and Number of Entry of the Company  Bratislava  I, odd.: Sa, vI. č.: 4 6 4 9 J  B  Phone Number  Fax Number  O 3 3 / 5 3 1 3 2 8 4  O 3 3 / 5 3 1 2 4 7 2  E-mail Address  Prepared on:  Approved on:  2 9 0 4 2 0 1 6  Reporting Entity or a Natural Person Acting as a Reporting
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MF SR č. 18009/2014 Page 1

MF SR č. 18009/2014

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Page 2

117P0Dv14 3 Balance Sheet IĈO 3 5 9 4 6 0 2 4 DIČ 2 0 2 2 0 3 6 5 9 9 Úč POD 1 - 01 **Current Reporting Period** Immediately-Preceding Reporting ASSETS Period Gross - Part 1 Net 2 Correction - Part 2 c Perennial crops (025) 15 /085 092A/ Livestock and draugh 5. animals (026) - /086, 092A/ 2 8 9 2 5 1 2 4 9 4 tangible assets (029, 02X, 032) - /089, 08X, 1 6 4 3 1 1 2 8 5 0 092A/ 3 0 5 0 6 0 1 4 2 2 8 7 8 7 6 4 Non-current tangible 18 assets in acquisition (042) - 094 7 6 2 7 2 5 0 3 9 8 6 8 4 4 5 1 2 6 1 1 2 5 1 2 6 1 1 2 5 Advance payments fo non-current tangible 19 assets (052) - /095A/ 1 9 1 2 5 9 2 Correction item to acquired assets (+/-20 097) +/- 098 1 1 1 2 1 6 7 7 2 1 1 1 2 1 6 7 7 2 Total non-current A.III. financial assets (l. 22 21 to I. 32) 1 1 1 6 0 0 3 6 8 Shares and ownership interests in group 22 companies (061A 062A 063A) = /096A/ Shares and ownership 1 1 1 2 1 6 7 7 2 1 1 1 2 1 6 7 7 2 interests with a participating interest exo 23 1 1 1 6 0 0 3 6 8 Other held-for-sale securities and ownership interests (063A) - /096A/ Loans to group companies (066A) -25 /096A/ Loans within a participating interest 26 except to group companies (066A) -/096A/ Other loans (067A) -27 /096A/ Debt securities and other non-current financial assets (065A, 069A, 06XA) - /096A/

MF SR č. 18009/2014

UZPODv14\_4 Balance Sheet IČO 3 5 9 4 6 0 2 4 Úč POD 1 - 01 DIČ 2 0 2 2 0 3 6 5 9 9 **Current Reporting Period** Immediately-Preceding Reporting ASSETS Gross - Part 1 Net 2 Correction - Part 2 Net 3 I cans and other non-cu financial assets with remaining maturity of up to one year (066A, 067A, 069A 29 06XA) - /096A/ Bank accounts bound for 9. period exceeding one year (22XA) Non-current financial 10. assets in acquisition (043) 31 /096A/ Advance payments for nor 32 11. current financial assets (053) - /095A/ 1 2 9 1 3 3 7 2 3 8 1 2 9 1 3 2 7 8 1 4 Current assets (l. 34 + B. I. 41 + I. 53 + I. 66 + I. 33 9 4 2 4 1 3 1 0 7 7 1 9 7 7 1 5 3 8 0 3 5 1 5 3 8 0 3 5 Total inventory (I. 35 to 1. 40) 1 9 0 2 1 9 2 1 5 3 8 0 3 5 1 5 3 8 0 3 5 Raw materials (112, 119, 35 11X) - /191, 19X/ 1 9 0 2 1 9 2 Work-in-progress and semi-finished goods 36 (121, 122, 12X) -/192, 193, 19X/ Finished goods (123) -37 Livestock (124) - 195 38 Merchandise (132, 133, 39 13X, 139) - /196, 19X/ Advance payments for 40 inventory (314A) - /391A 3 9 3 8 8 1 3 3 9 3 8 8 1 3 Total non-current B.II. receivables (I. 42 + I. 46 41 to I. 52) 3 9 3 9 5 6 3 Total trade receivables 42 (l. 43 to l. 45)

MF SR č. 18009/2014

Page 4

UZPODv14\_5 Balance Sheet IČO 3 5 9 4 6 0 2 4 DIČ 2 0 2 2 0 3 6 5 9 9 Úč POD 1 - 01 **Current Reporting Period** Immediately-Preceding Reporting ASSETS Ozna-čenie Period Gross - Part 1 Net 2 Correction - Part 2 Trade receivables from group 1.a. companies (311A, 312A, 313A 314A, 315A, 31XA) - /391A/ 43 Trade receivables within a participating interest except for receivables from group companies (311A,312A,313A, 314A, 315A, 31XA) - /391A/ 1.b. 44 Other trade receivables 1.c. (311A, 312A, 313A, 314A, 45 315A, 31XA) - /391A/ Net construction contract value (316A) 46 47 group companies (351A) -/391A/ Other receivables within a Other receivables within a participating interest except for receivables from group companies (351A) - /391A/ 48 Receivables from partners members and participants 49 in an association (354A. 355A, 358A, 35XA) -/391A/ Receivables from derivative transactions 50 (373A, 376A) 1 3 4 6 9 3 1 3 4 6 9 3 Other receivables (335A, 336A, 33XA, 371A, 374A, 51 375A, 378A) - /391A/ 1 3 5 4 4 3 3 8 0 4 1 2 0 3 8 0 4 1 2 0 8. Deferred tax asset (481A) 52 3 8 0 4 1 2 0 1 0 7 9 9 7 0 8 8 9 1 0 7 9 9 6 1 4 6 5 B.III. Total current receivables (I. 54 + I. 58 to I. 65) 53 9 4 2 4 1 1 0 4 6 8 3 6 2 1 6 7 6 1 2 1 9 6 7 5 2 4 8 7 Total trade receivables (I. 55 to I. 57) 54 B.III.1. 5 8 7 4 4 0 2 8 7 3 2 4 1 6 5 4 3 9 4 1 6 5 4 3 9 1.a. Trade receivables from group companies (311A, 312A, 313A, 314A, 315A, 31XA) - /391A/ 55 participating interest except for receivables from group companies (311A, 312A, 313A, 314A, 315A, 31XA) - /391A/ 1.b. 56

| Trade neceivables within a participating interest accept for participating interest acceptance in participation in participating interest acceptance in participating interest acceptance in participation in participa

	Balance Sheet												1 [	. <u>.</u> .															_
	Úč POD 1 - 01	DIČ	2	0	2	2	0	3	6	5	9	9		IČO	3	5	9	4	6	0	2	4	Ш	Ш	Ш	Ш	Ш	Ш	
Descriptio	ASSETS										nt Re	port	ting l	Perio	d							lr	nmed	liatel			ng Re	porti	ing
n a	b	Line	1					Gross		rt 1 Part 2							Ne	et 2								riod t 3			
а	Other trade receivables						2		9		7	٥	0				_	2	-	8	7	_	4	8	INC				
1.c.	(311A, 312A, 313A, 314A, 315A, 31XA) - /391A/	57							,	8	7	-	2				<u></u>			0		U	Н	8	7	4	4	0	2
2.	Net construction contract value (316A)	58	Ц																										
3.	Other receivables from group companies (351A) - /391A/	59																											
4.	Other receivables within a participating interest except for receivables from group	60																											
5.	companies (351A) - /391A/ Receivables from partners, members and participants in an association (354A,	61																											
6.	355A, 358A, 35XA, 398A) - /391A/ Social security insurance (336A) - /391A/	62																											
7.	Tax assets and subsidies /341, 342, 343, 345, 346, 347) -	63		1	0	7	3	1	8	9	2	5	1		1	0	7	3	1	8	9	2		1		2	_	1	_
8.	/391A/  Receivables from derivative transactions (373A, 376A)	64																		_								_	_
			Н	<u> </u>	H	Н	_		2	0	4	1	a			_	_			1	a	7	2	7					
9.	Other receivables (335A, 33XA, 371A, 374A, 375A, 378A) - /391A/	65					-		_		6	9	2							<u> </u>		_	_	Ė	1	6	7	0	5
	Total current financial										3	4	5									3	4	5					
B.IV.	assets (l. 67 to l. 70)	66																									5	7	1
B.IV.1.	Current financial assets in group companies (251A, 253A, 256A, 257A, 25XA) -	67									3	4	5									3	4	5					
	/291A, 29XA/		Щ	<u></u>		Ц	<u>_</u>			<u></u>	Ц		Ц							<u>_</u>		Ц		Щ		Ш	5	7	1
2.	Current financial assets excluding current financial assets in group companies (251A, 253A, 256A, 257A, 25XA) - /291A, 29XA/	68														_													
3.	Treasury stock and treasury shares (252)	69																L											
	Current financial assets										H		H							<u> </u>				H					_
4.	in acquisition (259, 314A) - /291A/	70	П										ī							Ī									Ī

MF SR č. 18009/2014 Page 6

MF SR č. 18009/2014

Balance Sheet IČO 3 5 9 4 6 0 2 4 Úč POD 1 - 01 DIČ 2 0 2 2 0 3 6 5 9 9 EQUITY AND LIABILITIES Current Reporting Period Immediately-Preceding Reporting Period 90 2 9 4 6 6 9 1 9 2 7 1 1 2 7 9 6 Other funds from profit I. 91 + I. 92 Statutory funds (427, 42X) 91 2 9 4 6 6 9 1 9 2 7 1 1 2 7 9 6 Other funds (427, 42X) 92 Total revaluation reserves (I, 94 to I, 96) 93 1 0 4 9 3 1 7 9 6 1 0 5 3 1 5 3 9 2 Asset and liability revaluation reserve (+/- 414) 94 - 1 0 1 5 9 5 0 5 - 9 7 7 5 9 0 9 1 1 5 0 9 1 3 0 1 Financial investments revaluation reserve (+/- 415) 95 1 1 5 0 9 1 3 0 1 Revaluation reserve from fusions, mergers and 96 separations (+/- 416) Profit/loss from previous years I. 98 + I. 99 97 3 0 8 8 0 2 1 5 2 8 0 6 9 4 3 7 98 3 0 8 8 0 2 1 5 2 8 0 6 9 4 3 7 A VII 1 Retained earnings from previous years (428) 99 Accumulated losses from previous years (/-/429) Profit/loss for the current reporting period after taxation /+-/ I. 01 - (I. 81 + I. 85 + I. 86 + I. 87 + I. 90 + 1 4 1 9 5 9 3 0 1 2 0 6 0 1 2 4 A.VIII. 100 93 + I. 97 + I. 101 + I. 141) Liabilities I. 102 + I. 118 + I. 121 + I. 122 + I. 136 + I. 139 1 2 3 3 3 6 7 5 2 0 1 2 6 1 7 9 5 9 3 5 101 1 2 4 8 1 7 2 4 2 5 8 4 6 7 0 5 Total non-current liabilities (I, 103 + I, 107 to I, 117) 102 103 Total long-term trade payables (I. 104 to I. 106) Frade payables to group companies (321A, 475A, 104 Trade payables within a participating interest except for 105 ayables to group companies (321A, 475A, 476A) 1.c. Other trade payables (321A, 475A, 476A) 106 2. Net construction contract value (316A) 107 1 2 0 9 0 5 0 3 2 5 4 9 6 9 7 7 Other payables to group companies (471A, 47XA) 108 Other payables within a participating interest except for 109 ayables to group companies (471A, 47XA) 5. Other long-term payables (479A, 47XA) 110 111 6. Long-term advance payments received (475A) 112 Long-term hills of exchange to be paid (478A) 8. Bonds issued (473A/-/255A) 113 3 9 1 2 2 3 4 9 7 2 8 9. Social fund payables (472) 114 Other non-current payables (336A, 372A, 474A, 115 47XA) ong-term payables from derivative transactions 116 (373A 377A)

UZPODv14 8

MF SR č. 18009/2014

117

12. Deferred tax liability (481A)

Page 7

UZPODv14\_9

Balance Sheet (Úč POD 1-01)

MF SR č. 18009/2014

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		_																								
Descripti on a	EQUITY AND LIABILITIES b	Line C			Cı	ırren	t Re	port 4	ing P	erio	d			Immediately-Preceding Reporting Period 5												
B.II.	Long-term provisions for liabilities I. 119 + I. 120	118		1	0	9	7	4	0	6	1	8	0		1	1	0	7	0	5	0	4	1	4		
B.II.1.	Legal provisions for liabilities (451A)	119																				7	5	0		
2.	Other provisions for liabilities (459A, 45XA)	120		1	0	9	7	4	0	6	1	8	0		1	1	0	7	0	4	9	6	6	4		
B.III.	Long-term bank loans (461A, 46XA)	121																						Ī		
B.IV.	Total current liabilities (l. 123 + l. 127 to l. 135)	122				2	5	3	8	2	2	9	3				3	9	0	2	1	3	0	5		
B.IV.1	Total trade payables (l. 124 to l. 126)	123				1	1	1	2	7	9	3	6				1	6	6	4	9	6	2	9		
1.a.	Trade payables to group companies (321A, 322A, 324A, 325A, 326A, 32XA, 475A, 476A, 478A, 47XA)	124						3	7	2	5	6	1													
1.b.	Trade payables within a participating interest except for payables to group companies (321A, 322A, 324A, 325A, 32XA, 475A, 476A, 478A, 47XA)	125																						L		
1.c.	Other trade payables (321A, 322A, 324A, 325A, 326A, 32XA, 475A, 476A, 478A, 47XA)	126				1	0	7	5	5	3	7	5				1	6	6	4	9	6	2	9		
2.	Net construction contract value (316A)	127				1	1	1	7	9	0	3	2				1	5	7	3	7	4	5	4		
3.	Other payables to group companies (361A, 36XA, 471A, 47XA)	128															Ш									
4.	Other payables within a participating interest except for payables to group companies (361A, 36XA, 471A, 47XA)	129								Ī							Ш							Ī		
5.	Payables to partners and participants in an association (364, 365, 366, 367, 368, 398A, 478A, 479A)	130															Ш									
6.	Payables to employees (331, 333, 33X, 479A)	131					1	2	1	5	8	9	3				Ш	1	2	1	3	2	8	5		
7.	Social security insurance payables (336A)	132						8	2	7	0	3	9				Ш		8	0	6	5	8	9		
8.	Tax liabilities and subsidies (341, 342, 343, 345, 346, 347, 34X)	133						5	1	0	2	0	6					4	2	8	9	0	3	4		
9.	Payables from derivative transactions (373A, 377A)	134																						L		
10.	Other payables (372A, 379A, 474A, 475A, 479A, 47XA)	135						5	2	2	1	8	7				Ш		3	2	5	3	1	5		
B.V.	Short-term provisions for liabilities I. 137 + I. 138	136				9	8	0	9	5	9	2	4				8	9	8	7	7	2	3	1		
B.V.1.	Legal provisions for liabilities (323A, 451A)	137						6	2	6	1	3	0				Ш	3	7	2	9	7	4	5		
2.	Other provisions for liabilities (323A, 32X, 459A, 45XA)	138				9	7	4	6	9	7	9	4				8	6	1	4	7	4	8	6		
B.VI.	Current bank loans (221A, 231, 232, 23X, 461A, 46XA)	139								1	3	9	9				Ш					2	8	0		
B.VII.	Short-term financial assistance (241, 249, 24X, 473A, /-/255A)	140																						L		
c.	Total accruals and deferrals (I. 142 to I. 145)	141				9	2	4	8	0	3	5	1				8	2	3	4	2	0	0	5		
C.1.	Non-current accrued expenses (383A)	142																								
2.	Current accrued expenses (383A)	143									3	9	6									1	5	4		
3.	Non-current deferred income (384A)	144				8	5	3	0	6	4	1	7				7	6	9	3	7	0	2	5		
4.	Current deferred income (384A)	145	Ī				7	1	7	3	5	3	8					5	4	0	4	8	2	6		

Income Statement Úč POD 2 - 01

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			Actual  Current Reporting Period Immediately-Preceding Reporting Period																							
Descripti on a	ltem b	Line		Current Reporting Period										Immediately-Preceding Reporting Period 2												
	Net turnover (a portion of Accounting Class 6 under the Act)	01				4	3	6	6	9	3	4	5				4	0	5	4	7	9	6	5		
	Total operating revenues (I. 03 to I. 09)	02			1	9	8	3	7	8	8	6	1			2	1	9	5	2	7	2	4	3		
l.	Revenues from the sale of merchandise (604, 607)	03																					L			
II.	Revenues from the sale of own products (601)	04							3	7	1	5	4							3	3	6	1	1		
III.	Revenues from the sale of services (602, 606)	05				4	3	6	3	2	1	9	1				4	0	5	1	4	3	5	4		
IV.	Changes in inventories (+/- Accounting Group 61)	06																		Ш			L			
V.	Own work capitalised (Accounting Group 62)	07					2	2	8	2	8	2	7					1	7	9	8	8	6	1		
VI.	Revenues from the sale of non-current intangible assets, non- current tangible assets and raw materials (641, 642)	08					1	0	4	6	2	5	2	Ш				3	3	3	0	6	0	2		
VII.	Other operating revenues (644, 645, 646, 648, 655, 657)	09			1	5	1	3	8	0	4	3	7			1	7	3	8	4	9	8	1	5		
	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	7	5	9	4	7	2	5	4	П		1	9	9	7	6	7	2	9	6		
A.	Costs of the acquisition of merchandise sold (504, 507)	11																					L			
B.	Consumed raw materials, energy and other non-inventory supplies (501, 502, 503)	12					8	1	0	5	3	8	6					6	9	3	4	3	0	4		
C.	Provisions for inventories (+/-) (505)	13						-	4	8	6	7	0	Ш					-	3	7	7	4	7		
D.	Services (Accounting Group 51)	14				3	6	8	7	5	9	8	1	Ш			4	8	1	6	3	0	7	1		
E.	Total personnel expenses (l. 16 to l. 19)	15				2	4	3	5	8	2	0	2	Ш			2	6	5	4	9	3	2	2		
E.1.	Wages and salaries (521, 522)	16				1	6	7	6	4	5	2	8	Ш			1	6	1	8	0	6	9	3		
2.	Remuneration of members of company bodies and co- operative (523)	17		L			L	2	4	9	1	7	1	Ц				Ц	2	1	6	7	9	4		
3.	Social insurance expenses (524, 525, 526)	18					6	7	2	2	2	7	5	Ш				6	8	9	4	8	9	7		
4.	Social expenses (527, 528)	19		Ц	<u></u>			6	2	2	2	2	8	Ш		Ш		3	2	5	6	9	3	9		
F.	Taxes and fees (Accounting Group 53)	20		Ц	L		2	6	8	7	4	7	8	Ш				2	5	8	5	0	0	1		
G.	Amortisation and depreciation, and provisions for non-current intangible and non-current tangible assets (I. 22 + I. 23)	21		L		1	4	3	4	1	6	5	5	Ш			1	4	3	2	1	7	7	1		
G.1.	Amortisation and depreciation of non-current intangible and non-current tangible assets (551)	22				2	0	0	2	9	4	2	3				1	7	3	7	9	1	5	7		
2.	Provisions for non-current intangible and non-current tangible assets (+/-) (553)	23				-	5	6	8	7	7	6	8				-	3	0	5	7	3	8	6		
H.	Net book value of non-current assets and raw materials sold (541, 542)	24							6	9	3	1	0	Ш		Ш			Ш	2	4	1	1	0		
l.	Provisions for receivables (+/-) (547)	25								3	6	3	6	Ц						Ū		8	6	3		
J.	Other operating expenses (543, 544, 545, 546,548, 549, 555, 557)	26				8	9	5	5	4	2	7	6			1	0	1	2	2	6	6	0	0		
•••	Operating profit or loss (+/-) (I. 02 - I. 10)	27				2	2	4	3	1	6	0	7				1	9	7	5	9	9	4	7		

			Actual  Current Reporting Period Immediately-Preceding Reporting Period																				
Descripti on	ltem	Line										mme	ediat	ely-F	rec		g Re	porti	ng P	erio	d		
а	b	С					1											2					
	Added value (l. 03 + l. 04 + l. 05 + l. 06 + l. 07) - (l. 11 + l. 12 + l. 13 + l. 14)	28				1	0	1	9	4	7	5			-	1	2	7	1	2	8	0	2
••	Total revenues from financing activities (I. 30 + I. 31 + I. 35 + I. 39 + I. 42 + I. 43 + I. 44)	29					8	5	0	2	3	9		L			1	1	6	5	0	5	7
VIII.	Revenues from the sale of securities and ownership interests (661)	30																					
IX.	Total revenues from non-current financial assets (l. 32 to l. 34)	31																					
IX.1.	Revenues from securities and ownership interests from group companies (665A)	32	Н	Е												Ī							
2.	Revenues from securities and ownership interests within a participating interest except for revenues from group companies (665A)	33																					
3.	Other revenues from securities and ownership interests (665A)	34		П							Ī					Ī	Ī						
X.	Total revenues from current financial assets (I. 36 to 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 (666A)	37																					
3.	Other revenues from current financial assets (666A)	38		П							Τ			Ī		Ī	Τ						
XI.	Interest income (I. 40 + I. 41)	39		Π			8	5	0	2	2	8					1	1	6	5	0	5	3
XI.1.	Interest income from group companies (662A)	40																					
2.	Other interest income (662A)	41		П			8	5	0	2	2	8					1	1	6	5	0	5	3
XII.	Foreign exchange gains (663)	42									1	1											4
XIII.	Gains on revaluation of securities and revenues from derivative transactions (664, 667)	43																					
XIV.	Other revenues from financing activities (668)	44																					
••	Total costs of financing activities (I. 46 + I. 47 + I. 48 + I. 49 + I. 52 + I. 52 + I. 53 + I. 54)	45						2	1	9	9	3								7	5	4	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												L									
0.	Foreign exchange losses (563)	52		L	L						4	9		L		L	L				1	0	9
P.	Expenses for revaluation of securities and expenses related to derivative transactions (564, 567)	53												L									
Q.	Other costs of financing activities (568, 569)	54	T	Π				2	1	9	4	4		Ī		Ī	Ī			7	4	3	1

UZPODv14\_12 Income Statement DIČ 2 0 2 2 0 3 6 5 9 9 IČO 3 5 9 4 6 0 2 4 Úč POD 2 - 01 Current Reporting Period Immediately-Preceding Reporting Period Profit/loss from financing activities (+/-) (I. 29 - I. 55 8 2 8 2 4 6 1 1 5 7 5 1 6 Profit/loss for the reporting period before taxation (+/-) (I. 27 + I. 55) 56 2 3 2 5 9 8 5 3 2 0 9 1 7 4 6 3 8 8 5 7 3 3 9 Income tax (I. 58 + I. 59) 57 9 0 6 3 9 2 3 R.1. Current income tax (591, 595) 58 9 0 6 3 9 2 3 8 8 5 7 3 3 9 59 Deferred income tax (+/-) (592) Profit/loss of partnership transferred to partners (+/- 596) 60 61 1 4 1 9 5 9 3 0 1 2 0 6 0 1 2 4

MF SR č. 18009/2014 Page 11 MF SR č. 18009/2014

### Deloitte.

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### Jadrová a vyraďovacia spoločnosť, a.s.

### INDEPENDENT AUDITOR'S REPORT

To the Shareholders and Board of Directors of Jadrová a vyraďovacia spoločnosť, a.s.:

We have audited the accompanying financial statements of Jadrová a vyraďovacia spoločnosť, a.s. (the "Company"), which comprise the balance sheet as at 31 December 2015, and the income statement for the year then ended, and notes, which include a summary of significant accounting policies and other explanatory information.

### Statutory Body's Responsibility for the Financial Statements

The Company's statutory body is responsible for the preparation and fair presentation of these financial statements in accordance with the Slovak Act on Accounting No. 431/2002 Coll. as amended (the "Act on Accounting"), and for such internal control as the statutory body determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditor's Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the statutory body, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Jadrová a vyraďovacia spoločnosť, a.s. as at 31 December 2015, and its financial performance for the year then ended in accordance with the Act on Accounting.

### **Emphasis of Matter**

As described in Notes III.4, IV.2 and VIII.2 to the financial statements, as at 31 December 2015, the Company used significant estimates in the recognition of provisions for liabilities and receivables from future government grants in connection with the decommissioning of nuclear facilities, storage of spent nuclear fuel and radioactive waste processing based on the updated strategy for the decommissioning of nuclear facilities approved by the Government of the Slovak Republic in 2014. There are inherent uncertainties in the estimation of costs for nuclear decommissioning and related activities, which may result in significant adjustments in terms of the Company's financial position and financial performance in the future.

Deloitte označuje jednu, resp. viacero spoločnosti Deloitte Touche Tohmatsu Limited, britskej súkromnej spoločnosti s ručením obmedzeným zárukou (UK private company) limited by quaranteje a jej členských firiem. Každá z týchto firiem predstavuje samostatný a nezávistý právny subjekt. Podrobný opis právnej štruktúry spoločnosti Deloitte Touche Tohmatsu Limited a jej členských firiem sa uxádza na adrese wzw.deloitte.com/sk/o-nas.

As described in Notes I.1.2 and III.2 to the financial statements, the Company established a joint venture, Jadrová energetická spoločnosť Slovenska, a. s. together with ČEZ Bohunice a. s., a subsidiary of ČEZ, a. s. (major electricity producer in the Czech Republic) to build a new nuclear power plant. The future development and recoverability of the investment in the joint venture depends on the decision about the construction, which will be taken in the future.

Our opinion is not modified in respect of these matters.

Bratislava, 17 March 2016

Deloitte Audit s.r.o. Licence SKAu No. 014

Ing. Wolda K. Grant, FCCA Responsible Auditor Licence SKAu No. 921



Automated Complex of Nuclear Power Plant Security and Protection **AKOBOJE** 

As Low As Reasonable Achievable – the optimisation ALARA

principle of radiation exposure of persons

Bohunice International Decommissioning Support Fund **BIDSF** 

CO Carbon monoxide Organic carbon Cora.

**CRAM** Captured radioactive materials

European Bank for Reconstruction and Development **EBRD** 

EU European Union

**FCC** Fiber concrete container

**FP LRAW** Final Processing of Liquid Radioactive Waste

INES International Nuclear Event Scale Institutional radioactive waste **IRAW ISFS** Interim Spent Fuel Storage

JAVYS, a.s. Jadrová a vyraďovacia spoločnosť, a.s.

JESS, a.s. Jadrová energetická spoločnosť Slovenska, a.s.

Long-term intangible assets LIA LRAW Liquid radioactive waste Long-term tangible assets LTA

ME SR Ministry of Economy of the Slovak Republic Ministry of Environment of the Slovak Republic **ME SR** 

**MPB** Main production building

MTCRD SR Ministry of Transport, Construction

and Regional Development of the Slovak Republic

NF Nuclear facility

NNF SR National Nuclear Fund of the Slovak Republic

Oxides of nitrogen NO<sub>v</sub> **NPP** Nuclear power plant

Nuclear Regulatory Authority of the Slovak Republic **NRA SR** 

National Radioactive Waste Repository NRWR

Occupational safety and health OSH

Public Health Authority of the Slovak Republic **PHA SR** 

**RAW** Radioactive waste

Radioactive Waste Processing and Treatment Technologies **RAW PTT** 

SE, a.s. Slovenské elektrárne, a joint stock company

SE-EBO Slovenské elektrárne, a.s., Bohunice Nuclear Power Plant (V2 NPP) Slovenské elektrárne, a. s., Mochovce Nuclear Power Plant (EMO1,2) SE-EMO

Spent nuclear fuel SNF **SO<sub>2</sub>** Sulphur dioxide **VAT** Value added tax