REPORT ON THE ENVIRONMENTAL IMPACT OF JAVYS, a. s.,

OPERATIONS 2024

CONTENT

1. INTRODUCTION

The Environment Report 2024 provides comprehensive information on the air protection, water and waste management systems, on the handling and use of chemicals, on environmental impact assessment (EIA) processes and on activities related to the environmental protection performed within JAVYS, a. s. JAVYS, a.s. is certified in environmental management system in accordance with the ISO standard 14001:2015 Environmental Management Systems, which demonstrates our goal and mission to perform all activities related to environmental protection.
Environmental protection forms part of the Safety process within the framework of the *"Integrated Management System"*.
During the performance of all the activities, emphasis is placed on compliance with the legal requirements of the SR and EU in the individual fields of environmental protection; and on the obligation to comply with limits and conditions included in decisions made by state authorities and regulatory bodies which oversee the protection of individual environmental components.

2. AIR PROTECTION

Company JAVYS, a. s., complies with the basic legal regulation in the field of air protection - the Act of the National Council of the Slovak Republic No. 146/2023 Coll. on Air Protection, as well as all directly and indirectly related laws, implementing Decrees and Regulations.
The method to operate sources of air pollution, be it the granting of permits, the specification of emission monitoring system, and the definition of limits of pollutants discharged into the air, is governed by applicable decisions by the national and regulatory authorities in relation to the air protection issued for company JAVYS, a. s.

Sources of air pollution and specific activities

In 2024, company JAVYS, a.s. operated **five (5) medium sources and two (2) small sources of air pollution.**

Pursuant to valid permit No. OU-TT-OSZP3-2023/065039-003 for the operation of Reserve Boiler Plant, the operator is obliged to comply with the emission limits specified in the Decree of the Ministry of the Environment of the Slovak Republic No. 248/2023 Coll. for the pollutants NOx and CO. Emissions are measured for this source of air pollution by authorized periodic measurement pursuant to the Decree of the Ministry of Environment of the Slovak Republic No. 249/2023 Coll.

Reserve boiler plant (RBP)	medium source
Diesel generator in pumping station "V1"	medium source
Diesel generator adjacent to the outdoor switch-board "A1"	medium source
Diesel generator in sub-station V1 (2 pcs)	medium source
Diesel generator next to ISFS (interim spent fuel storage)	medium source
Production of fibre concrete mixture in the FCC production plant	small source
Mobile crushing plant VOLVO (portable stationary source)	small source

Pursuant to the new Act on Air Protection, company JAVYS, a. s., performed selected specific activities in 2024, which included construction activities including demolition and reconstruction works, crushing of construction waste and demolition waste, and wood and biomass chipping. The operator is obliged to notify the relevant municipal office of the performance of the selected specific activity 14 days in advance according to the cadastral area. In 2024, the following notifications were sent to the authorities in accordance with the Act on implementation of selected specific activities:

- crushing of concrete as part of the D4.2 project implementation "Dismantling of reactor coolant system large components" (Municipal Office Ratkovce),
- construction activity - reconstruction works in building 808 and building 47 (Municipal Office Jaslovské Bohunice),
- wood and biomass chipping (Municipal Office Jaslovské Bohunice).

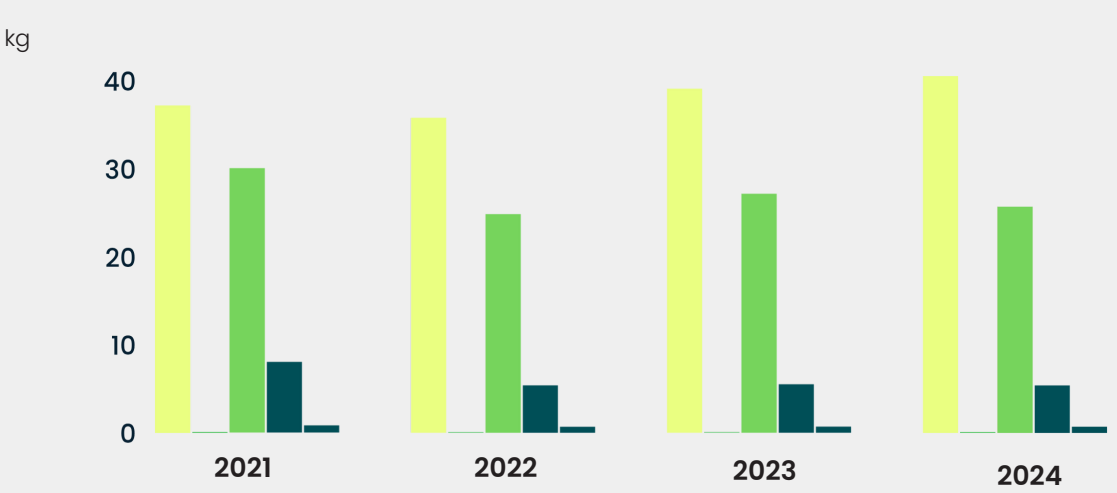
Quantities of emissions released into the air

Amount of Fuel Consumed, Number of Operating Hours and Amount of Emissions Discharged from Individual Sources in 2024

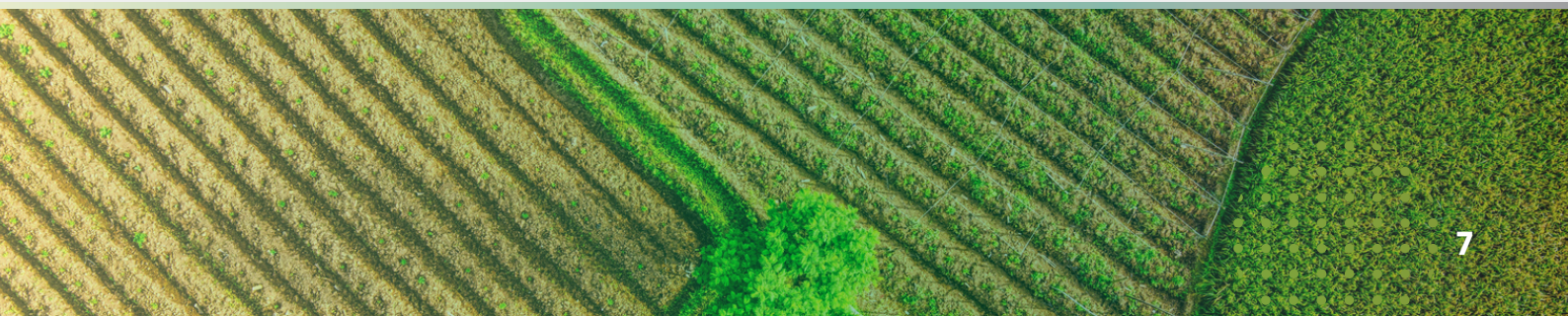
Air Pollution Source	Fuel	Number of operating hours	Amount of pollutant (kg)				
Stredné zdroje znečisťovania ovzdušia							
Reserve boiler plant	Natural gas (thous. Nm^3)	Hours/year	Solid pollutants	SO_2	NO_x	CO	C_{org}
	4.750	11.65	0.361	0.043	7.923	2.666	0.341

Diesel generators	**diesel (tonnes)**	**hours/year**	**Solid pollutants**	**SO_2**	**NO_x**	**CO**	**C_{org}**
DG Caterpillar Olympian	0.348	16.2	0.494	0.007	1.739	0.278	0.040
DG Martin Power MP 1700	2.020	10.08	2.869	0.040	10.101	1.616	0.222
DG1 Martin Power MP 400 / 2 ks	0.148	4.1	0.210	0.003	0.739	0.118	0.016
DG Caterpillar C13ATAAC400-SA	1.483	20.83	2.105	0.030	7.47	1.186	0.169
Small air pollution sources							
FMC production	-	560	35.578	-	-	-	-
Crushing plant VOLVO		628	0.791				
Total amount of pollutants from all small air pollution sources (kg)			**40.564**	**0.114**	**25.731**	**5.411**	**0.713**

Amounts of discharged emissions of all air pollutants (2021 – 2024)



The amounts of pollutant emissions discharged into the air in 2024 were comparable to previous years.



Company JAVYS, a. s., also operates nuclear facilities that are not categorized as sources of air pollution according to the Act on Air Protection, (RAW Incineration Plant until the source permit has been issued by the District Authority, i.e. until 31 December 2030), despite the fact that inactive emissions of pollutants discharged into the air are measured in them by an automated measuring system (AMS). Emission limits for polluting substances are approved for these facilities by the Nuclear Regulatory Authority of the Slovak Republic, which is also the regulator for the nuclear facilities. Emission limits are set in the operating procedure 10-LAP-001 "Limits & Conditions of safe operation of the Facility for Treatment and Conditioning of RAW". The nuclear facilities are as follows:

- BRWTC Incineration Plant (PS06) in the building 808,
- RAW Incineration Plant (PS45) in the building 809,
- Metallic RAW Melting Facility (PS37) in the building 34.

BRWTC RAW Incineration Plant (PS06)

In 2024, the BRWTC RAW Incineration Plant (PS06) was operated for 3,334 hours. The table below shows the quantities of pollutants discharged from the Incineration Plant over this period.

Amounts of emissions discharged from the BRWTC RAW Incineration Plant (PS06) for the year 2024 and comparison with previous years

Pollutant	Year 2022 [kg]	Year 2023 [kg]	Year 2024 [kg]
Solid pollutants	0.380	<0.01	<0.01
CO	20.160	23.540	44.02
C_{org}	0.490	0.78	1.65
SO_2	4.630	1.30	4.64
NOx	230.240	230.700	322.67
HCl	1.008	1.31	2.44
HF	0.437	0.89	0.43
Hg	0.004	0.007	0.017
Tl + Cd	0.007	0.025	0.068
Sb+As+P-b+Ni+Cr+Co+Cu+Mn+V	0.090	0.077	0.195
Operating hours /year	**2,619**	**2,809**	**3,334**

Emissions of pollutants (solid pollutants, CO, C_{org}, SO_2, NOx, HF and HCL) are continuously measured by the AMS system, the functionality of which is checked by an authorised person at regular annual intervals. The limit values, frequency of measurements and control of the AMS are specified in operating procedure (OP) 10-LAP-001 Limits & Conditions of safe operation of the Facility for Treatment and Conditioning of RAW. During the operation of the BRWTC RAW Incineration Plant PS 06 in 2024, the set values for the concentration of individual pollutants discharged into the air were not exceeded.

RAW Incineration Plant (PS45)

In 2024, the RAW Incineration Plant (PS45) was operated for 2,405 hours. The table below shows the quantities of pollutants discharged from the Incineration Plant over this period.

Amounts of emissions discharged from the RAW Incineration Plant (PS45) for the year 2024 and comparison with previous years

Pollutant	year 2022 [kg]	year 2023 [kg]	year 2024 [kg]
Solid pollutants	0.019	4.21	0.8
CO	143.420	165.42	48.29
C_{org}	16.930	16.50	7.37
SO_2	146.470	274.69	19.4
NOx	961.760	1,152.05	578.27
HCl	10.824	10.74	1.19
HF	1.660	0.12	0.11
Hg	0.010	0.008	0.016
Tl + Cd	0.007	0.005	0.023
Sb+As+Pb+Ni+Cr+Co+Cu +Mn+V	0.109	0.083	0.063
Operating hours /year	**6,034**	**5,343**	**2,405**

Emissions of pollutants (solid pollutants, CO, Corg, SO2, NOx, HF and HCL) are continuously measured by the AMS system, the functionality of which is checked by an authorised person at regular annual intervals. The limit values, frequency of measurement and control of the AMS are specified in operating procedure (OP) 10-LAP-001 Limits & Conditions of

safe operation of the Facility for Treatment and Conditioning of RAW.

During the operation of the RAW Incineration Plant (PS 45), the maximum permitted average daily value of TOC concentration in flue gas was exceeded in March 2024. The exceedance was detected based on AMS measurements and was discussed by the committee for failures, which adopted corrective measures. The event had no impact on nuclear safety.

Metallic RAW Melting Facility

The metallic RAW melting facility PS37 was in operation for 466 hours in 2024, the quantities of emissions released into the air were very low and are shown in the table.
Chemical monitoring system (AMS) of gaseous emissions of solid pollutants, NOx, CO and SO2 is installed at the facility. In the annual report for 2024 from the AMS measurements, the measured pollutant concentration levels were well below the established emission limits.

Amounts of pollutants discharged from the metallic RAW melting facility for the year 2024

Pollutants	year 2024 [kg]
Solid pollutants	0
CO	0
SO_2	4
NOx	1
Operating hours /year	466

Air pollution charges (NEIS)

In 2024, company JAVYS, a. s., was obliged, pursuant to the Act No. 146/2023 Coll. and Act No. 190/2023 Coll. on Air pollution charges, to report data on stationary sources, on quantities and types of pollutants emitted into the air for the previous year, on compliance with emission limits and calculation of the annual fee for all medium-sized sources of air pollution. The data were sent to the relevant district environmental office in January 2024 (according to the cadastral area of the source) and subsequently to the National Emission Information System (NEIS).
In 2024 due to the insignificant amount of pollutants produced (calculated according to approved calculation procedures), company JAVYS, a. s. was not obliged to pay a fee for emissions from the operation of medium air pollution sources. No fee is paid for the operation of small air pollution sources (FMC production and VOLVO crushing plant) under the new Act on Air Pollution Fees.

Equipment containing fluorinated greenhouse gases

Pursuant to the Act No. 286/2009, Coll., on Fluorinated Greenhouse Gases, and Regulation 2024/573 of the European Parliament and of the Council on Fluorinated Greenhouse Gases, JAVYS, a. s. is the operator of multiple equipment containing fluorinated greenhouse gases (F gases). Such gases are mainly found in air

conditioning units, current and voltage transformers, switchboards and stationary fire suppression equipment. The operators of equipment which contain F gases provide for regular mandatory inspections of discharged F gases on all such equipment. Inspections are performed by professionally competent individuals. In line with the Act, JAVYS, a. s., sent the annual report on fluorinated greenhouse gases to the relevant District Offices, Departments of Environmental Protection. The report concerned equipment with a volume of 5 and more tonnes of CO_2 equivalent, within the deadline specified by the Act.

Greenhouse gas emissions

JAVYS, a. s., is a mandatory participant in the trading scheme pursuant to the Act No. 414/2012 Coll. on Emissions Trading. In 2024, 22 tonnes of greenhouse gases (CO_2) were released into the atmosphere from the operation of the reserve boiler plant and diesel generators. The amount of CO2 emissions increased slightly compared to 2023 (from 20 tonnes to 22 tonnes).

In accordance with the requirements of the Act No. 414/2012 Coll. on Emissions Trading, a report on the level of activity of parts of the operation and a report on greenhouse gas emissions from the operation for the previous year were prepared in January 2024. Both reports were verified pursuant to the relevant Act by an accredited verifier (ASTRAIA Certification, s.r.o.). The emissions report together with the verification report were sent to the Trnava Municipal Administration and the Ministry of Environment of the Slovak Republic via the EU ETS electronic emission allowance trading system.

Discharges of radioactive substances into the atmosphere

Only fractions of permitted guidance limit values of exhaust gases are discharged into the environment by the nuclear facilities owned by JAVYS, a. s., as confirmed by multiple monitoring measurements. The guidance limit values of discharged radioactive substances were established by decisions of the Public Health Authority of the Slovak Republic, and approved by the Nuclear Regulatory Authority of the Slovak Republic.

Discharged radioactive aerosols (β, γ) in 2024

Nuclear facility	Vol. activity of discharged substances (Bq)	Annual guidance value (Bq)	% of guidance limit
Aerosols VK 46A (MRB)	4.3×10^{7} Bq	2.0×10^{10} Bq	0.213
Aerosols VK 46B (Bi-tum. Line and External buildings)	8.0×10^{5} Bq	2.0×10^{9} Bq	0.040
Aerosols VK 808 (BRWTC and External buildings)	1.6×10^{5} Bq	2.0×10^{9} Bq	0.008
Aerosols VK 840 (ISFS)*	1.3×10^{5} Bq	3.0×10^{8} Bq	0.043
Aerosols V1 NPP	8.3×10^{6} Bq	2.0×10^{10} Bq	0.042
Aerosols (FP LRAW)	5.3×10^{4} Bq	8.0×10^{7} Bq	0.067

** Shared limit value of 3 × 108 Bq applies to all radionuclides produced by ISFS (β, γ) included)*

No radioactive substances were discharged into the atmosphere from the NRAWR premises, due to the nature of the repository.
In 2024, substances discharged from nuclear facilities operated by JAVYS, a. s. into the atmosphere were significantly below the authorized guidance limits specified by the Public Health Authority of the Slovak Republic.

3. WATER MANAGEMENT SYSTEM

In the field of water protection, JAVYS, a. s., complies with the basic legal regulation, i.e. Act No. 364/2004 Coll., on Water, as amended, adopted by the National Council of the Slovak Republic, and with all subsequent related Acts, executive ordinances and regulations. The permitted amounts of discharged wastewater, the concentrations and balance limit values of pollutants in the wastewater, places and methods of wastewater discharge, etc., are defined by applicable decisions of state authorities and regulatory authorities in the field of water protection, and issued for JAVYS, a. s.

Drinking water

Drinking water is supplied to the Jaslovské Bohunice site from the TAVOS, a. s. distribution line, based on a valid drinking water supply contract. The Mochovce nuclear site is connected to the SE, a. s. EMO Plant (SE-EMO) drinking water distribution line. The drinking water supply to the administrative building in Bratislava is provided from the public water mains of Bratislavská vodárenská spoločnosť, a. s.

Amount of drinking water consumed between 2021 and 2024

SITE	Consumption [m³]			
	2021	2022	2023	2024
NRAWR Mochovce	51,778	59,034	59,624	64,050
FP LRAW Mochovce	806	402	730	803
Office building Bratislava	256	259	253	267
SUM TOTAL	998	880	908	867
SPOLU	**53,838**	**60,575**	**61,515**	**65,987**

Total drinking water consumption in 2024 increased by 4,472 m³ compared to last year, which represents an increase of 7.3%. An increase of 4,426 m³ of drinking water consumption was recorded in Jaslovské Bohunice. The increase in consumption was caused by an increase in the number of employees of Contractors working on individual projects. At the National Radioactive Waste Repository, consumption was 73 m3 higher due to construction of the fourth double-row for the low-level radioactive waste repository. At the Liquid RAW Final Treatment Facility and in the administrative building in Bratislava, consumption was comparable to the previous year.

In company JAVYS, a. s., the quality of drinking water was inspected in accordance with the Decree of the Ministry of Health of the Slovak Republic No. 91/2023 Coll., establishing the indicators and limit values for the quality of drinking water and hot water quality, the procedure for monitoring of drinking water, risk management of the drinking water

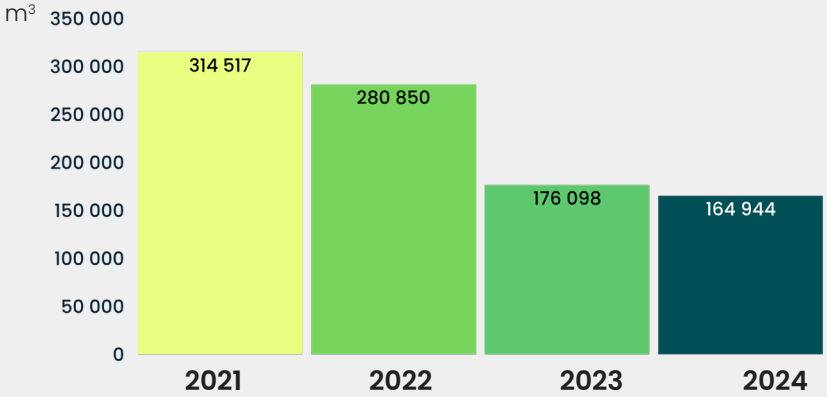
supply system and risk management of house distribution systems, and in accordance with the Decree of the Ministry of Health of the Slovak Republic No. 45/2024 Coll. on limiting the radiation exposure of residents from drinking water, natural mineral water and water suitable for preparing food for infants.
The results of analyses of all samples were in accordance with the limit values set by the Decrees of the Ministry of Health of the Slovak Republic.

Surface and Cooling Water

Surface water is provided from the Sĺňava reservoir by SE, a. s. V2 Bohunice power plant. Treated surface water is used to cool the V1 NPP systems, RAW and SNF processing and storage facilities (ISFS), to ensure the necessary flow rate in the building 368 for measuring devices. It is the input fluid for production of deionized water, is used to replenish the fire water system and to dilute wastewater when discharging water containing tritium.

The amount of surface water taken in 2024 was lower than in previous years.

Consumed cooling water (supplied from the River Váh) 2021 - 2024



The FP LRAW (the bituminization lines and the thickening evaporator) technological facilities are connected to the supply of the non-essential utility water system from the SE-EMO distribution system, i.e. to the cooling water circulation system. The consumption of cooling water reached 1,875 m³ in 2024.

Wastewater

Jaslovské Bohunice site

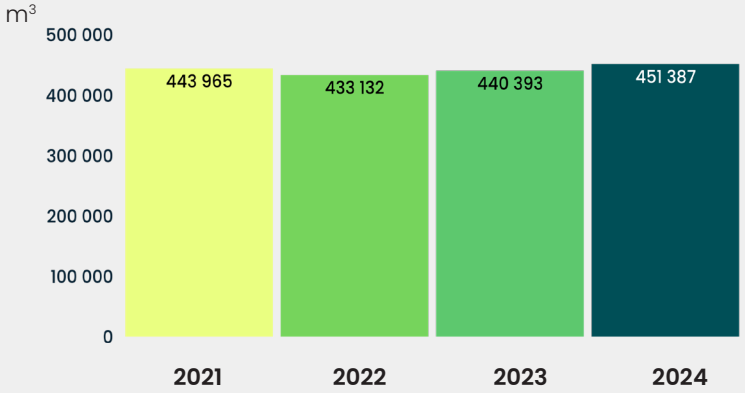
Wastewater from the JAVYS, a. s. site in Jaslovské Bohunice is discharged by a separate sewerage system to the Rivers Váh (water used by technology) and Dudváh (surface drainage water).

Balance of discharged wastewater

Wastewater from the Jaslovské Bohunice site is discharged through the SOCOMAN pipe collector and the Manivier open channel in accordance with the valid decision of the District Office in Trnava No. OU-TT-OSŽP2-2013/00026/GI, the validity of which was extended by decision No. OU-TT-OSZP2-2023/041505-002 until 31st July 2033.

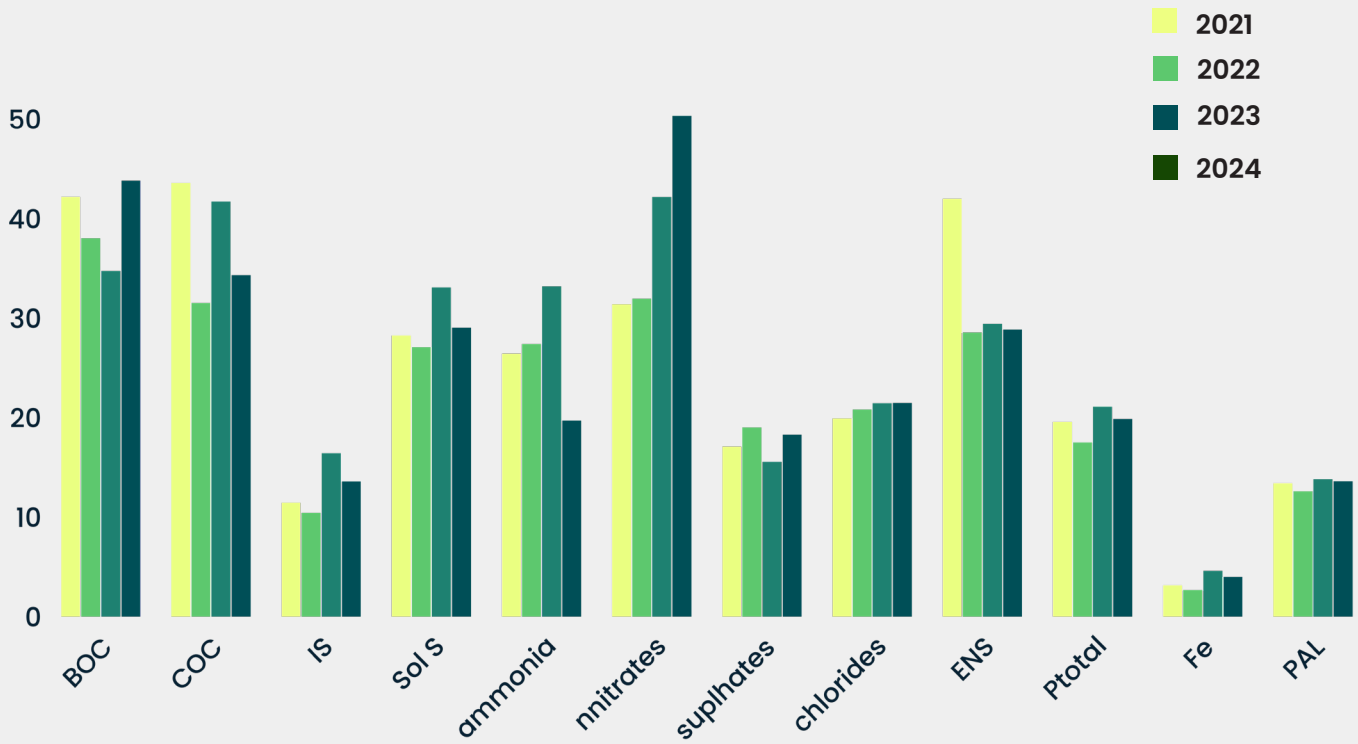
Quality of wastewater discharged into the River Váh recipient is monitored by taking samples collected over a period of 24 hours analysed in an accredited laboratory. Company JAVYS, a.s. is not obliged to measure the quantity and quality of rainwater discharged into the recipient Dudváh.

Amounts of wastewater discharged into the River Váh, 2021-2024 (m^3)



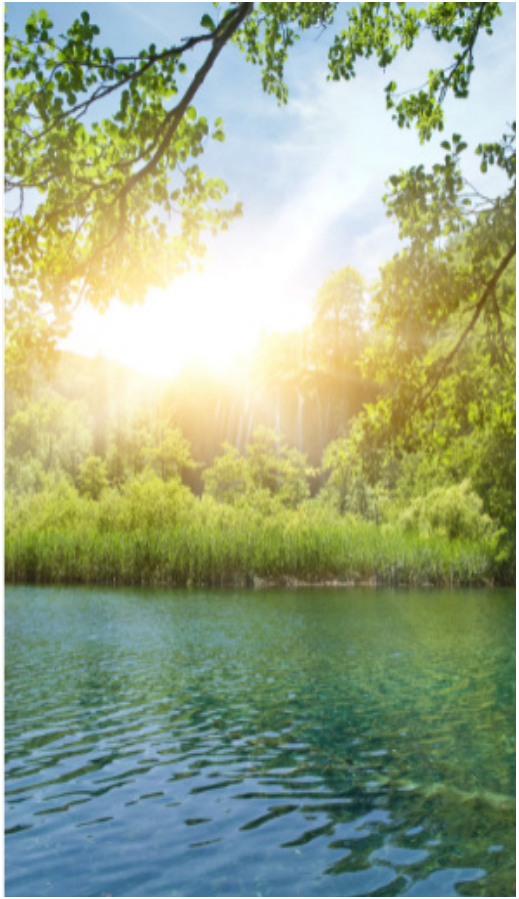
According to the results of accredited sampling and analyses of wastewater samples discharged into the Váh recipient, a one-time exceedance of the concentration limit value of the pollutant was recorded in 2024 in two indicators "biological oxygen consumption (BOC5)" and "chemical oxygen consumption by chromate (ChOCcr)" in one wastewater sample in the month of October. Company JAVYS, a. s., addressed the above-mentioned fact at a meeting of the committee for failures, where the causes were analysed and measures will be proposed to prevent repeated exceedance of the quality indicators of discharged wastewater pollution. Given the nature of the indicators, measured concentrations and flow in the Váh recipient, the discharge of wastewater with a higher concentration of the above-mentioned indicators into the Váh recipient was evaluated as an event that did not pose a threat to aquatic ecosystems and was not an extraordinary deterioration or threat to water quality.

Percentage of Usage Limit of individual contaminants in discharged wastewater 2021-2024



Average Concentration of Chemical Pollutants Discharged into the River Váh Recipient

Chemical pollution indicator	Average concentration of discharged contaminants	Permitted concentration (decision OU-TTOSŽP2-2013/00026/GI)
Acidity, alkalinity – pH	7.564	9.00
	mg/l	mg/l
biochemical oxygen consumption -BOC_5	3.504	8.00
Chemical oxygen consumption - $ChOC_{Cr}$	10.292	30.00
Insoluble substances – IS	2.715	20.00
Soluble substances – SS	290.431	1 000.00
Ammonia- N-NH_4+	0.787	4.00
Nitrates - NO_3^-	25.164	50.00
Sulphates - SO_4^{2-}	27.413	150.00
Chlorides - Cl^-	21.482	100.00
Extracted non-polar substances - NES	0.101	0.35
Total phosphates – $P_{celk.}$	0.397	2.00
Iron - Fe	0.080	2.00
Detergents - PAL	0.068	0.50



NRAWR Mochovce site

A rainwater sewage system is installed at the NRAWR site. The system of tanks is emptied into the Telinsky potok stream. Decision OU-NR-OSZP2-2020/043017-003 issued by the District Office in Nitra permitted the discharge of surface drainage water into the Telinsky potok stream. NRAWR discharged 3,178 m3 of surface drainage water into the Telínsky potok stream in 2024. 150 m^3 of sanitary water accumulated in a waterproof cesspool in NRAWR were transported to a wastewater treatment plant to be treated.

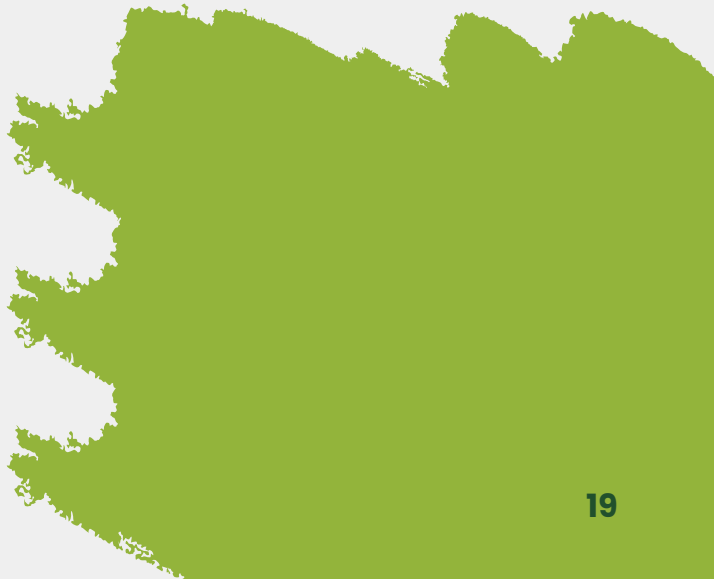
FP LRAW Mochovce

Sanitary water from FP LRAW is drained into the SE-EMO sewage system, then taken into the wastewater treatment plant and, after its purification, discharged into the environment with SE-EMO water. The rainwater is drained into the SE-EMO rainwater sewage system along with rainfall water from other SE-EMO civil buildings. The sanitary water and rainwater is drained by Slovenské elektrárne, a. s.

Discharges of radioactive substances into the hydrosphere

Only fractions of permitted limit values of discharged liquids are discharged into the environment by the nuclear facilities operated by company JAVYS, a. s., as confirmed by multiple monitoring measurements. The guidance limit values of radioactive substances discharged into surface water by nuclear facilities of JAVYS, a.s. were established by decisions of the Public Health Authority of the Slovak Republic, and approved by the Nuclear Regulatory Authority of the Slovak Republic.

The substances discharged in wastewater are monitored by measuring the volumes of tritium, corrosion and fission products, and the volume of water stored in retention tanks at RAW PTT, A1 NPP, ISFS and V1 NPP, while water discharges are also continuously monitored at measurement points. Water with
low values of contaminants also includes water discharged due to the standard operation of the groundwater pumping system from well N-3 (BO 106) permitted by the District Office in Trnava in line with the Act No. 364/2004 Coll. on Water.



Low-level Water Discharge from the Jaslovské Bohunice Site (including water pumped from the recovery pumps at the RAW PTT and A1 NPP Sites) into the River Váh

Rok 2024	Activities of radionuclides in wastewater of the River Váh recipient							
	V1 NPP site				A1 NPP site, TSÚ RAO, ISFS			
Volume of discharged water [m³]	4,573				200, 935			
	Corr. & fiss. prod. [MBq]	Tritium [GBq]	% of CFP guidance limit*	% of Tritium guidance limit*	Corr. & fiss. prod. (MBq)	Tritium (GBq)	% of CFP guidance limit**	% of Tritium guidance limit**
Total	**11.810**	**0.253**	**0.091**	**0.013**	**11.519**	**67.047**	**0.096**	**0.670**

** CFP guidance limit: 13,000 Mbq; Tritium guidance limit: 2,000 GBq*
*** CFP guidance limit: 12,000 Mbq; Tritium guidance limit: 10,000 GBq*

No low-level waters were discharged into the Dudváh recipient in 2024.

Active Water Discharged into the Hydrosphere from NRAWR and FP LRAW

Surface drainage water is only discharged from NRAWR into the Telinský potok stream. 3,178m^3 was discharged in 2024, with disintegration activity 8.05×106 Bq. Limits of volumetric activities of radionuclides in discharged water specified by the decision of the Chief Public Health Officer were not exceeded for any of the indicators monitored in this period.

Quality of rainfall wastewater discharged from NRAWR

Radionuclide	Guidance limit [Bq/year]	Disintegration activity in discharged water (Bq)	% of guidance limit
Tritium	1.88x10^{10}	7.95x10^6	0.042
Cs-137	2.28x10^7	5.60x10^4	0.246
Co-60	2.24x10^7	2.80x10^4	0.125
Sr-90	2.44x10^8	1.80x10^4	0.007
Pu-239	5.56x10^5	9.00x10^2	0.166

Secondary active wastewater was not discharged from the FP LRAW facility in 2024.

Groundwater monitoring and protection

Jaslovské Bohunice site

The monitoring and protection of groundwater and soil waters at the Jaslovské Bohunice site and in its surroundings have been carried out since 1997 in accordance with the approved monitoring programme. Long-term and regularly monitored radiation in ground water at RAW PTT and A1 NPP is currently stable. Continuously working recovery pumps on-site have been in operation since 2000. Activities are carried out under the A1 NPP decommissioning project, based on which primary sources of soil contamination, followed by sources of groundwater contamination, were gradually removed. Recovery pumps are operated in compliance with the MoE SR decision in force.

Evaluation of the Standard Operation of the Groundwater Recovery Pumps, Well N-3

Recovery Pumping in 2024	Reached CFP activity [MBq]	[%] of CFP guidance limit*	Reached tritium activity [GBq]	[%] of Tritium guidance limit*	Volume of pumped water [m3]
Total	**1.62**	**0.013**	**54.79**	**0.548**	**200.73**

**Guidance limits are specified by decision as follows:*
- *CFP guidance limit = 1.2 ×10⁴ MBq,*
- *Tritium guidance limit = 1.0 × 10⁴ GBq.*

In addition to the monitoring within the company's site, the surroundings are monitored as well. Based on the groundwater monitoring results in the surroundings of the Jaslovské Bohunice site, it is possible to observe a significant reduction of radiation (reduced tritium volumetric activities to an insignificant level at the natural level) in the surroundings of municipalities Malženice and Žlkovce.

NRR Mochovce site

Within and nearby NRAWR, groundwater samples were collected from monitoring wells in line with the monitoring calendar 2024, for the purpose of chemical and radiochemical analyses. Apart from ground water, drainage water is also monitored at NRAWR. The volumetric activity of the individual radionuclides in 2024 was below the limit specified by the Chief Health Officer of the Slovak Republic. Drainage water is discharged through rainwater tanks. Its amount and analyses are included in data on discharged water.

Results of Chemical and Radiochemical Analyses of Water

Measured quantity	Activity limit [Bq/l]
Tritium	< 5
Total beta activity	< 1
Cs-137	< 1.21
Co-60	< 0.81
Sr-90	< 0.09
Pu-239	< 0.06

The results of radiochemical analyses reached the level of normal potential values; the environment was not negatively impacted at NRAWR and its surroundings during operation.

4. WASTE MANAGEMENT (Inactive Waste)

In the field of waste management, JAVYS, a. s. complied in 2024 with the basic legal regulation, i.e. Act No. 79/2015, Coll., on Waste, as amended, adopted by the National Council of the Slovak Republic, and with all subsequent related acts, executive ordinances and regulations of the Government of the Slovak Republic. JAVYS, a. s. provides waste management by the collection, sorting and accumulation of waste within the premises allocated for such purpose - the Waste Collection Yard.

Balance of Waste Produced from Projects co-financed by the EU

Disposal and recycling of waste produced by activities not implemented by projects co-financed by the EU fall under the competence of JAVYS, a. s. If such activities are provided, the disposal and recycling of such waste is ensured by a contracted supplier.

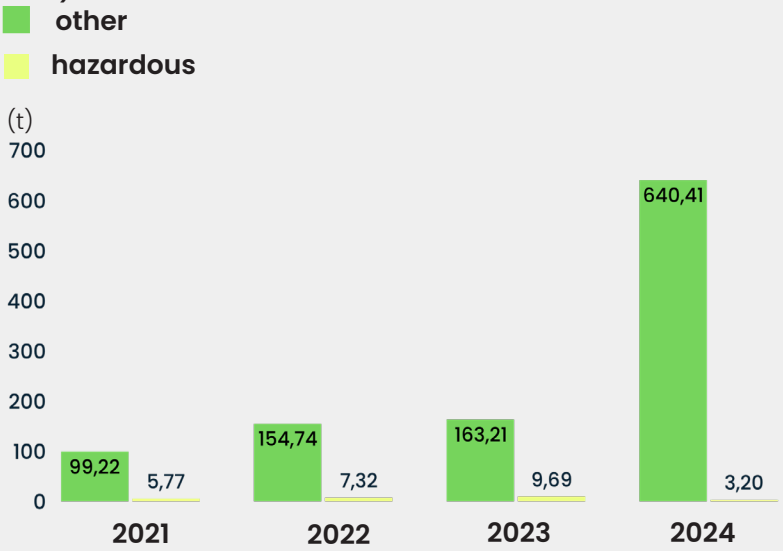
Amount and type of waste (category "other") produced by JAVYS, a. s. in 2024, within projects not financed by the EU in the locality of Jaslovské Bohunice

Catalogue Number	Type of Waste	Other waste – name	Amount (tonnes)	Recycled waste (tonnes)	Disposed waste (tonnes)
150101	O O	Paper and cardboard packaging	14.32	✓	
150106	O O	Mixed packaging	4.50	✓	
160214	O O	Discarded equipment not listed under 160209- 160213	3.74	✓	
170201	O O	Wood	16.10	✓	
170604	O O	Insulation materials not listed under 170601-03	39.96		✓
150107	O O	Glass packaging	2.64	✓	
170107	O O	Mixtures of concrete, bricks, tiles, facing material	138.25		✓
170302	O O	Bituminous mixtures other than those mentioned in 17 03 01	345.72		✓
070213	O O	Waste plastic	3.21		✓
170904	O O	Mixed construction and demolition waste	71.97		✓
Total amount (t)			**640.41**	**41.30**	**599.11**
Total amount			**100%**	**6.45**	**93.55**

Amount and type of hazardous waste produced by JAVYS, a. s. in 2024, within projects not financed by the EU in the locality of Jaslovské Bohunice

Catalogue Number	Type of Waste	Hazardous waste – name	Amount (tonnes)	Recycled waste (tonnes)	Disposed waste (tonnes)
130208	H (Hazardous)	Other engine, gear lubricating oils	0.08	✓	
050103	H (Hazardous)	Sludge from the tank bottoms	0.12	✓	
150110	H (Hazardous)	Packaging containing residues of or contaminated by hazardous substances	0.40		✓
150202	H (Hazardous)	Absorbents, filters (oil filters included), cloths used to clean contaminated hazardous substances	0.08		✓
160213	H (Hazardous)	Discarded equipment containing hazardous parts other than those mentioned in 160209 to 160212	1.14	✓	
160506	H (Hazardous)	Laboratory chemicals which consist of/contain hazardous substances	0.08		✓
160601	H (Hazardous)	Lead-acid batteries	0.84	✓	
080317	H (Hazardous)	Used printer cartridges containing hazardous substances	0.06		✓
200121	H (Hazardous)	Fluorescent tubes and other mercury-containing waste	0.34	✓	
160508	H (Hazardous)	Discarded organic chemicals consisting of or containing hazardous substances	0.06		✓
Total amount (t)			**3.20**	**2.52**	**0.68**
Total amount			**100%**	**78.75%**	**21.25%**

Other and hazardous waste produced at the Jaslovské Bohunice site, unrelated to projects co-financed by the EU (2021 - 2024)



Total waste production (excluding projects co-financed from the EU funds) increased compared to the year, which was caused by increased waste production due to the reconstruction of buildings No. 47 and No. 808 and the repair of roads and traffic signs in the JAVYS, a.s., Jaslovské Bohunice area.

Balance of Waste Produced within Projects co-financed by the EU

Waste was produced by JAVYS, a. s. in 2024 during Stage 2 of V1 NPP decommissioning, and recycled and disposed of by contractors and sub-contractors engaged in the individual projects.

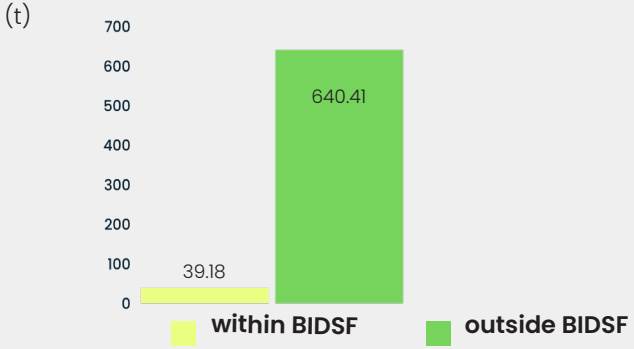
Amount and type of waste (category "other" and "hazardous") produced by JAVYS, a. s. in 2024, within projects co-financed by the EU

Catalogue Number	Type of Waste	Other waste – name	Amount (tonnes)	Recycled Waste	Disposed waste
170203	OO	Plastics – BIDSF Project D4.4C	11.42		✓
170203	OO	Plastics – BIDSF Project A5.A3	14.68		✓
170203	OO	Plastics – BIDSF Project D4.2	13.08		✓
Total amount (tonnes			**39.18**	**0**	**39.18**
Total amount			**100%**	**0**	**100%**

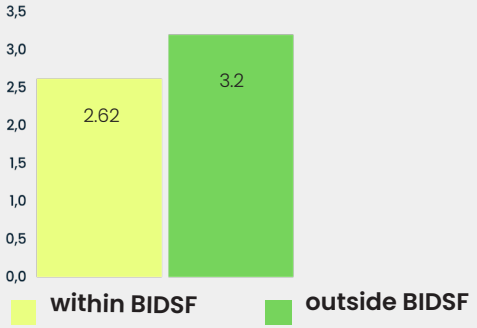
Catalogue Number	Type of Waste	Hazardous waste – name	Amount (tonnes)	Recycled Waste	Disposed waste
190304	H (Hazardous)	Partially stabilized waste - BIDSF Project D4.4C	2.62		✓
Total amount (tonnes)			**2.62**	**0**	**2.62**
Total amount			**100%**	**0**	**100%**

Comparison of the amount of other and hazardous waste produced within projects co-financed by the EU, and by in-house production

Compared production in 2024 – other waste



Compared production in 2024 –hazardous waste



amount (t)

Balance of municipal waste

Amount of municipal waste produced in JAVYS, a.s. in 2024 at Jaslovské Bohunice and Mochovce site

Catalogue number	Type of waste	Name of other waste	Quantity [t]	Recycled	Disposed
170402	OO	Aluminium	8.34	✓	
170407	OO	Mixed metals	1 ,160.80	✓	
170401	OO	Copper	39.50	✓	
Total amount [t]			**1,208.64**	**1,208.64**	**0**
Total amount [%]			**100 %**	**100 %**	**0 %**

In 2024, the sale of recyclable metallic waste was ensured through valid contracts for the provision of services.

Balance of Municipal Waste

Amount of municipal waste produced by JAVYS, a. s. in 2024, at Jaslovské Bohunice and Mochovce site

Catalogue Number	Type of Waste	Waste name	Amount (tonnes)	Recycled waste	Disposed waste
200301	OO	Mixed municipal waste - Jaslovské Bohunice	31.68		✓
200301	OO	Mixed municipal waste – National Radioactive Waste Repository in Mochovce	3.72		✓
Total amount (tonnes)			**35.40**	**0**	**35.40**
Total amount			**100%**	**0**	**100%**

Total balance of other and hazardous waste produced in all facilities operated by company JAVYS, a.s. for the years 2022 – 2024

Amount (tonnes)	2022	2023	2024
Recycled waste			
Other waste	51.701	209.027	67.339
Other waste - metallic	1,932.29	1579.12	1,208.640
Hazardous waste	5.16	19.088	2.54
Total	1,989.151	1807.235	1,278.519
Disposed waste			
OW (excluding MW)	130.62	162.23	638.29
Municipal waste (Other waste)	32.68	35.56	35.40
Hazardous waste	2.66	4.28	3.30
Total	165.96	202.07	676.99
Total amount (recycled and disposed)			
Other waste + Hazardous waste (t)	2,155.111	2,009.305	1,955.509

Total waste production in 2024 was lower than the previous year due to less metallic waste being generated.

5. MANAGEMENT OF CHEMICAL SUBSTANCES

JAVYS, a. s., is, pursuant to the Act No. 67/2010 Coll. on Conditions of Placing the Chemical Substances and Chemical Mixtures into market, is a downstream user of chemicals. The application "Management of Chemical Substances" (MCHL) is used to monitor the management of hazardous substances. The application contains a codebook of all chemical substances and mixtures purchased and used in our company as well as imported to JAVYS, a. s. site by contractors and tenants. All chemical substances and mixtures are categorised according to the Chemical Act, the Water Act and the Act on Prevention of Serious Industrial Accidents. In the application, actual "Safety Data Sheets" are available for employees for each chemical substance or mixture.

JAVYS, a.s. is not classified as category "A" or "B" under Act No. 128/2015 Coll. on the Prevention of Serious Industrial Accidents and on Amendments and Supplements to Certain Acts on the basis of the quantity and characteristics of hazardous substances present at Jaslovské Bohunice site.

6. ENVIRONMENTAL IMPACT ASSESSMENT

The environmental impact assessment is governed by Act No. 24/2006 Coll. on Environmental Impact Assessment, and on amendments and supplements to certain Acts, as amended, adopted by the National Council of the Slovak Republic. The provisions of the Act were implemented into Procedure BZ/OŽ/SM-04 Environmental impact assessment (EIA).

Environmental impact assessment processes

Mandatory assessment

In 2024, the process of mandatory impact assessment for the proposed activity "V. stage of the A1 NPP decommissioning and subsequent release of the A1 NPP site from administrative control" continued. On 2.4.2024, an environmental impact assessment report was submitted to the Ministry of Environment of the Slovak Republic, which was discussed on 22.5.2024 at a public hearing together with the affected authorities and the public in the municipality of Žlkovce. The Ministry of Environment of the Slovak Republic designated a professionally qualified person to prepare an expert opinion for the assessment report. This expert opinion was sent to the Ministry of Environment of the Slovak Republic on 21.11.2024, the Ministry of Environment subsequently suspended the proceedings regarding the assessment of the proposed activity by Decision No. 3310/2024-11.1 of 19.12.2024 due to the return of the expert opinion for further elaboration. The evaluation process of the proposed activity was not completed in 2024.

Activities implemented during the permitting of assessed activities

The implementation and operation of activities that have been assessed in accordance with the Act on Environmental Impact Assessment is only possible under the condition of proving the compliance of the activity implementation with the final opinion from the assessment process or with the decision issued in the screening proceedings. This compliance is demonstrated by developing a written evaluation of the conditions of the final opinion of the Ministry of Environment of the Slovak Republic or the conditions of the decision issued in the fact-finding procedure and attaching it to the application for an activity permit.
In the course of 2024, a written evaluation of the fulfilment of conditions resulting from the final opinions on permitting proceedings was prepared:

1. ***Issuance of the final inspection permit for the activities of:***
   • "Extension of the National radioactive waste repository in Mochovce for disposal of low-level waste and construction of a repository for very low-level waste" – 4th double row for low-level waste
   • Completion of storage capacities of spent nuclear fuel at the Jaslovské Bohunice site – preliminary use of the building

2. ***Issuance of the permit to change the demolition permit:***
   • *BIDSF D4.2 "Dismantling of contaminated part of concrete from the rooms R003/1.2 and R048/1.2"*

3. ***Approval of the operating regulation:***
   • *Reconstruction of the technological equipment of ČSOV in building 41*

4. ***Approval of the nuclear facility modification within the scope of DZM:***
• Reconstruction of the technological equipment of ČSOV in building 41

In all binding opinions, the Ministry of Environment of the Slovak Republic confirmed the compliance of the permitting proceedings with the Act No. 24/2006 Coll. and decisions issued pursuant to this Act.

Post-project analysis

A comprehensive post-project analysis was prepared for all assessed activities for the years 2019–2023, which was submitted to the Slovak Nuclear Regulatory Authority in June 2024, in accordance with the directive. The results of the post-project analysis demonstrate their implementation in accordance with the Environmental Impact Assessment Act and decisions issued pursuant to this Act.

7. ENVIRONMENTAL MANAGEMENT SYSTEM

JAVYS, a. s. adheres to the certified environmental management system in accordance with the ISO standard 14001:2015 Environmental Management Systems, to demonstrate it undertook all its activities in 2024 in compliance with the environmental protection requirements.

The functionality and implementation of this system was verified by an independent certification body, Det Norske Veritas GL, on 8. 11. - 14. 11. 2024, by a recertification IMS audit confirming the validity of internationally acceptable certificates for JAVYS, a. s.

As part of the process approach, environmental protection is regularly monitored and reviewed by internal IMS audits, which also verify the application of the requirements of the environmental management system. The audits revealed minor findings and two non-conformities, for which corrective measures were determined. The corrective measures were accepted by the audited departments and fulfilled within the specified deadlines.

Abbreviations

As	Arsenic
AP	Air pollutant
Bq	Becquerel
BIDSF	Bohunice International Decommissioning Support Fund - V1 NPP
BRWTC	Bohunice Radioactive Waste Treatment Centre
Cd	Cadmium
CFP	Corrosion and fission products
CO	Carbon monoxide
CO_2	Carbon dioxide
Co	Cobalt
Cr	Chrome
Cs	Caesium
Cu	Copper
DG	Diesel generator
DO	District office
EIA	Environmental impact assesment
Env	Environment

ETS	Emission Trading System
EB	External buildings
EU	European Union
FCC	Fibre concrete container
FCCP	Fibre concrete container production
FP LRAW	Final processing of liquid radioactive waste
GBq	Gigabecquerel
^{3}H	Thritium
HCl	Hydrogen chloride
HF	Hydrogen fluoride
Hg	Mercury
HP	Hazardous parts
HS	Hazardous substance
ISM	Integrated management system
ISFS	Interim Spent Fuel Storage
JAVYS, a. s.	Jadrová a vyraďovacia spoločnosť, a. s., a joint stock company
MBq	Megabecquerel
Mn	Manganese
MoE SR	Ministry of Environment of the Slovak Republic
MRB	Main reactor building

NF	Nuclear facility
Ni	Nickel
NOX	Oxides of nitrogen
NRAWR	National Radioactive Waste Repository
Pb	Lead
P_{TOTAL}	Total phosphate
Pu	Plutonium
RAW	Radioactive waste
RAW PTT	Radioactive waste processing and treatment technology
RBP	Reserve boiler plant
SE-EBO	Slovenské elektrárne, a. s., Atómové elektrárne Bohunice power plant
SE-EMO	Slovenské elektrárne, a. s., Atómové elektrárne Mochovce power plant
SNF	Spent nuclear fuel
SO_2	Sulphur dioxide
SP	Solid pollutants
Sr	Strontium
TAVOS, a. s.	Trnavská vodárenská spoločnosť, a. s.
Tl	Tellurium
VS	Ventilation stack

javys

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