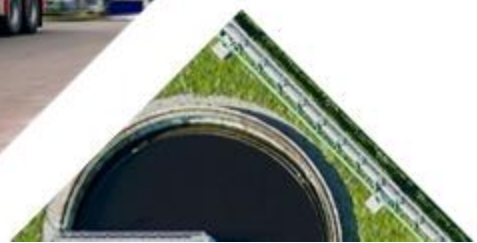
DEZA goes green

we are sustain-ability

DEZA®

2023 Environmental Status Report



DEZA, a. s. is a producer of basic organic substances intended for further industrial use. Maximum care is devoted to a permanently responsible approach in comprehensive environmental protection, emergency preparedness, operational safety and health protection at work.

1994 – 30 let – 2024
Responsible Care®

COMPANY INTRODUCTION

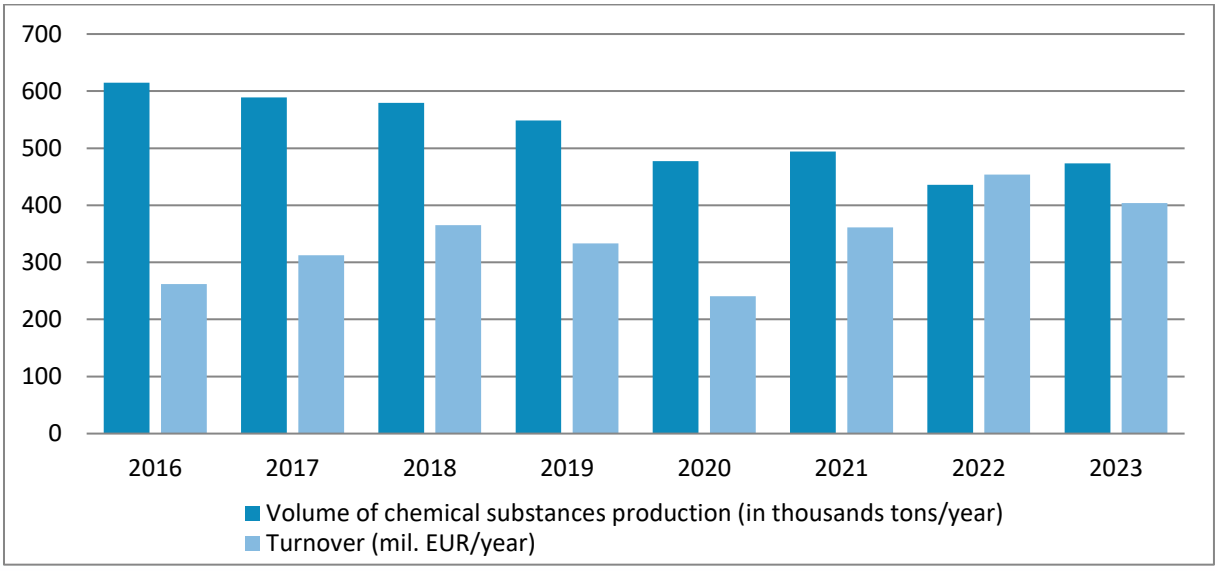
DEZA, a.s. is a producer of basic aromatic hydrocarbons and other chemical substances with more than 130 years of tradition. It is one of the most important companies in the world in the field of coal tar and crude benzole processing. By constantly renewing and modernizing the production technologies used, the company tries to reduce the impact of chemical production on the environment.

Reducing the impact of production on the environment and public trust are the result of a correctly set management system. The internationally recognized standards ISO 9 001 (QMS), ISO 14 001 (EMS), 45 001 (HSMS) and 50 001 (EnMS) are at DEZA, a.s. certified and regularly reviewed.

The product portfolio is very broad. DEZA, a.s. produces aromatic hydrocarbons – benzene, toluene, a mixture of xylenes, as well as phenolic substances and polyaromatic hydrocarbons such as naphthalene, anthracene, carbazole, pyrene and tar oils. Phthalic anhydride and then esters are produced from naphthalene, and anthraquinone is produced from anthracene.

An important product is coal pitch, which is shipped overseas via the company's seaport cargo terminal in Świnoujście, Poland. Chemical production is carried out at the company's headquarters in Valašské Meziříčí and in the separate Organik operation in Otrokovice. For the subsidiary CS CABOT spol. s.r.o., the basic raw material for the production of carbon black is produced.

DEZA, a.s. has a modern approach to the production of energy from conventional and alternative fuels, controlled waste water treatment by physical, chemical and biological processes. A corporate incinerator of industrial waste is used to minimize the production of hazardous waste.



DEZA, a.s. is a long-term participant in the Responsible Business in Chemistry program. It actively supports this worldwide initiative, leading to the achievement of a high level of health and safety protection of employees, general population and the environment. In 2020, the Responsible Care certificate was defended for the ninth time in a row, with the right to use the RC logo until October 2024.

INVESTMENT AND DEVELOPMENT

The accepted commitment to constantly reduce the impacts of the activities and services provided on the environment and people's health is regularly reflected in the investment plan for technical development. In 2023, with environmental protection focus the following projects and plans were completed or supported by investment:

- Reconstruction of D1 boiler and improvements to flue gas denitrification on K2 boiler of the heating plant
- Adjustments to hermetic emissions at the Phenols and MTVCH production facilities
- Hermetization of operations of Esters VM in connection with the intensification of this production plant
- Replacement of gas furnace burners with low-emission LowNOx burners
- Reduction of NOX emissions using SNCR at an industrial waste incinerator
- Process monitoring of wastewater and tail gas detection

Investments [mil. CZK]	2020	2021	2022	2023
Renewing	65.1	84.9	169.9	74.3
Development	138.1	69.8	138.0	39.7
Ecological	123.6	122.4	89.1	49.6
Total	326.8	277.1	397.0	163.5

In the last 10 years, more than CZK 1.068 billion have been invested in the greening of facilities. In the long term, the share of investments in ecology represents almost 30% of costs.

Operating expenses related to the greening of the facility reached CZK 475.4 million in 2023. Another CZK 22.6 million was spent on ensuring safety and health protection at work.

AIR PROTECTION

DEZA, a.s. runs more than 60 stationary sources of air pollution, operated in line with binding operating conditions and in accordance with the requirements of the best available techniques (BAT), currently listed in European reference documents (BREF).

By hermetization of production operations, efficient processing of waste gases and cleaning flue gas, emission levels are set to the lowest possible achievable level.

The total air emissions in 2023 and in previous years are as follows:

Indicator [t/year]	2020	2021	2022	2023
Sulfur oxides (SO_2)	940.577	1074.034	1082.226	1036.153
Nitrogen oxides (NO_X)	540.735	636.603	610.498	587.324
Carbon monoxide (CO)	77.475	46.815	38.084	40.040
Carbon dioxide (CO_2)	308,839	305,647	269,528	266,181
Particulate matter pollutants (PM)	13.635	14.790	13.387	14.571
Volatile organic compounds (VOC)	16.549	14.790	10.385	13.138
VOC emissions on production output [%]	0.0035	0.0029	0.0024	0.0028

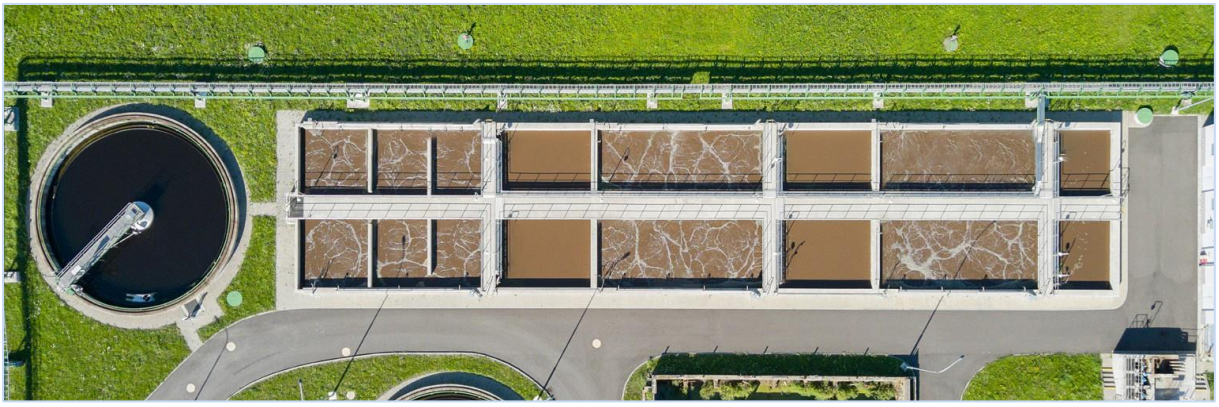
The emission level is periodically verified by one-time measurements carried out by accredited laboratories. Continuous emission monitoring systems are applied at significant sources. The costs of verifying the level of emissions in 2023 reached the amount of CZK 1.274 million.

Since 2005, DEZA, a.s. has been included in the European system of trading greenhouse gas emission allowances. For the year 2023, CO_2 emissions included under the EU ETS reached the level of 252,399 tons.

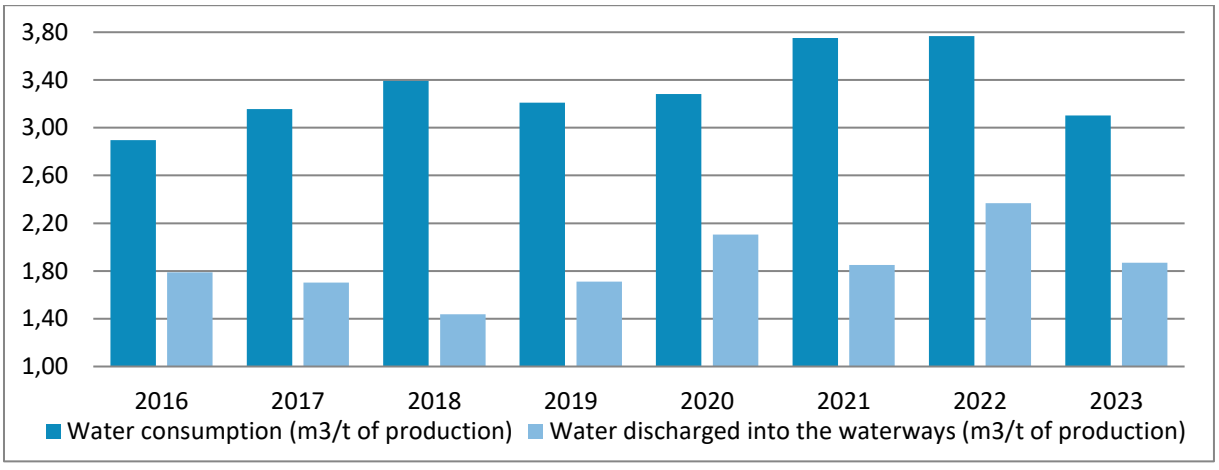
In connection with the plan for the denitrification of the industrial waste incinerator and the expansion of the hermetic system by the Esters VM production plant, a further reduction in the level of nitrogen oxides and volatile organic substances is expected.

WATER PROTECTION

The priority for DEZA, a.s. in the field of water protection is to minimize the impact of technological wastewater from operations on the quality of water discharged into the Bečva river. For this purpose, a multi-stage chemical and biological treatment of industrial wastewater is operated. It meets the requirements of the best available technique for discharged water from the chemical industry (BAT CWW). The completed intensification of the biological treatment plant at a cost of CZK 438 million, including upstream pressure flotation, cascade activation and a tertiary stage of water purification went into permanent operation on 7 November, 2023.



The gradual introduction of techniques to reduce the level of emissions often leads to the increasing consumption of resources, especially feed water for the production of heat and service water, forced by the adopted environmental measures.



Groundwater monitoring is carried out regularly and long-term. The area in Valašské Meziříčí operates a hydraulic barrier consisting of 11 active wells, 5 internal line wells and 13 monitoring wells, the purpose of which is to prevent groundwater contamination outside the production area.

Total emissions to surface water in 2023 and in previous years are shown in the following table:

Indicator [t/year]	2020	2021	2022	2023
Chemical oxygen demand (COD)	21.38	14.911	14.602	17.048
Phosphorus compounds (total P)	0.195	0.363	0.177	0.110
Nitrogen compounds (N inorg.)	2.341	2.164	1.402	3.293
Dissolved inorganic salts	643.8	762.5	673.6	633.1
Suspended solids	4.022	3.341	3.528	2.877

For the discharge of waste water into surface waters, established by the binding condition of operation, emission limits are set in accordance with the requirement for a good condition of the water course.

INDUSTRIAL WASTE

Production operation steps logically follow each other in such a way that by-products and generally less applicable products are utilized elsewhere as a valuable raw material source for chemical production, and in the final phase are energetically evaluated as an alternative fuel. To minimize the production of emerging hazardous waste, an industrial waste incinerator with heat utilization, simultaneously operated as the best available technique (BAT WI), is applied Problematic waste from the region is also accepted for heat treatment at the incinerator. Waste and by-products that cannot be burned, that can be materially processed or that can be better used elsewhere are handed over to specialized companies.

The long-term goal of DEZA, a.s. is to minimize waste production with the permanent intention of reusing it. The total waste production has long-term oscillated around the level of 2.51%, related to the unit production of the relevant production and is shown in the following table:

Indicator [t/year]		2020	2021	2022	2023
Production	hazardeous waste	8,561	7,885	6,546	5,752
	other waste	12,935	2,985	8,189	2,802
	removed in an incinerator	7,902	7,698	6,671	5,381
	total production	21,496	10,842	14,736	8,555
	per unit of relevant production [%]	3.77	2.19	2.69	1.81

In 2023, 3,173.9 tons of waste were transferred to external waste management facilities, of which 26.6% were materially usable and only 13.3% of the waste was considered hazardous.

CHEMICAL LEGISLATION

The increasing pressure of environmental measures within the framework of the European Green Deal is reflected in the chemical legislation in the adoption of the Chemical Strategy for Sustainability (CSS). It can be assumed that the review of the REACH Regulation and the CLP Regulation initiated by the European Commission will cause further impacts on the chemical industry. An internal working group was therefore established to deal with the impacts and identification of measures resulting from the Green Agreement.

DEZA, a.s. is an active member of sectoral groups within CEFIC (European Chemical Industry Council), which unites joint effort to monitor events surrounding individual chemicals and restrictions proposed by the European Commission, EU Member States or various non-governmental organizations. DEZA, a.s. is also a member of consortia that deal with the issue of Regulation 1907/2006 (REACH).

Currently, the biggest challenge is the need to update the registration documentation of substances and conduct toxicological and ecotoxicological tests, which are required by the European Chemicals Agency (ECHA) for selected substances. In 2023, the costs for conducting these tests amounted to CZK 6.422 million.

ENERGY CONSUMPTION

Energy consumption in recent years is shown in the following overview:

Energy [GJ/year]	2020	2021	2022	2023
Heat energy consumption	2,021,872	2,054,799	1,692,110	1,622,358
Purchase of electricity	104,093	103,228	86,343	100,489
Production of electricity	180,958	176,239	156,730	143,658
Total energy consumption	2,125,965	2,158,027	1,778,453	1,722,847

Local companies, and indirectly also households, are connected to the company's central heat supply system. In 2023, a total of 231 TJ of heat was transferred to external customers, which is about 12.5% of the total production. Surplus heat and unused heat is used to produce electricity. The source of heat is chemical production, but also commercial fuels and alternative fuels from chemical production, as well as high-calorific waste or end waste gases.

The heating plant operates flue gas denitrification using the SNCR technique, a semi-dry method of desulfurization and dust removal of flue gas on a sleeve filter. These environmental measures, assessed as Best Available Techniques (BAT LCP), have contributed to complying with the stricter emission limits, valid since 18 August 2021, and at the same time lead to a reduction in the environmental impact of heat production. The implementation of the ENERGIS energy information system, as well as the introduction of the certified energy management system in accordance with the standard ČSN EN ISO 50 001 and the setting of action goals lead to a gradual reduction of the energy intensity of the activities being carried out, which have shown a downward trend in recent years.

SOCIALLY BENEFICIAL ACTIVITIES

In the development of social relations of DEZA, a.s. we respect information openness. We inform the public about our influence and comprehensive environmental protection. Investment plans are

discussed in a timely manner with the professional public and public authorities. Deza, a.s. is an important employer in the region. We offer our employees a number of above-standard benefits and create safe working conditions and the assurance of a good employer. We inform about the happenings in the company in the periodical Valašský chemik.

Sponsorship activities are primarily focused on selected interest groups (sports education of youth, cultural and charitable projects) to promote and explain the role of the chemical industry in our everyday life, including in building a developed economy. In 2023, we supported selected applications and spent funds in the amount of CZK 2.121 million. We cooperate with vocational high schools in the region and support students in the study of these fields.

WORK SAFETY AND HEALTH PROTECTION

Work and health safety are ensured on the basis of system management through continuous education and training of employees in this area. Subsequently, control activities are carried out by company executives. Carelessness and risk underestimation are the main causes of incidents.

In 2023, 16 workplace accidents with subsequent work absence and 43 minor injuries were recorded.

Occupational accidents of employees	2020	2021	2022	2023
Number of occupational accidents	16	14	9	16
Accident frequency [1)]	10	8.8	5.8	10.8
Frequency of accidents [2)]	1.56	1.38	0.90	1.69

Notes: [1)] number of accidents per million hours worked; [2)] number of accidents per 100 employees

Occupational hygiene is ensured by the monitoring of work tools and the measurement of the concentration of harmful substances in the working environment, carried out by our own accredited analytical laboratory. The results found are the basis for the categorization of works and are reflected in the plan of corrective measures.

PREVENTION AND OPERATIONAL SAFETY

With regard to the amount and risk of stored chemicals, DEZA, a.s. belongs to business that are subject to increased requirements for the prevention of serious accidents. Active and passive elements of preventive protection are therefore applied in the technology, which enable the timely detection of non-standard conditions and the appropriate implementation of adequate measures preventing the rise of an emergency situation. At the same time, chemical operations meet the requirements of the best available techniques (BAT LVOC).

Regular emergency preparedness drills take place every year, usually with the participation of the company's fire brigade, which also participates in the voluntary TRINS system. In this way, the public is offered continuous assistance in dealing with extraordinary situations connected with the transport, loading or storage of hazardous substances in the territory of the Czech Republic.

IDENTIFICATION DATA

Business name:	**DEZA, a.s.**
Headquarters:	Masarykova 753 Krásno nad Bečvou 757 01 Valašské Meziříčí
Plant Organik:	třída Tomáše Bati 1764 765 02 Otrokovice
DEZA Polska:	ul. Bunkrowa 1 Nabrzeze Chemikow 72-602 Świnoujście
Identification number:	00011835
VAT:	CZ 00011835
Telephone:	+420 571 69 1111 (reception) +420 571 69 2110 (dispatch)
Data box:	av3cdzk
Email:	info@deza.cz
Webside:	www.deza.cz

INTEGRATED MANAGEMENT SYSTEMS AND CERTIFICATES

SVAZ CHEMICKÉHO PRŮMYSLU ČR

Responsible Care®

SVAZ CHEMICKÉHO PRŮMYSLU ČESKÉ REPUBLIKY
ASSOCIATION OF CHEMICAL INDUSTRY OF THE CZECH REPUBLIC

awards the member company

DEZA, a.s.

CERTIFICATE

of results achieved in fulfilling voluntary aims and goals in the program

RESPONSIBLE CARE - ODPOVĚDNÉ PODNIKÁNÍ V CHEMII

This program aims to improve environmental protection and health and safety of all activities of the company.

pronouncement from 28.6.1994
first vindication 1996
tenth vindication 2024

Along with this certificate, the company has the right to use the logo RESPONSIBLE CARE - ODPOVĚDNÉ PODNIKÁNÍ V CHEMII

until October 2029

in accordance with conditions announced by the European Chemical Industry Council (CEFIC)

In Prague, October 10th, 2024

President

Responsible Care (RC)
since 1994

Bureau Veritas Certification

Certificate

Awarded to

DEZA, a.s.

Masarykova 753, Krásno nad Bečvou, 757 01 Valašské Meziříčí, Czech Republic

This is a multi-site certificate, additional site details are listed in the appendix to this certificate.

BUREAU VERITAS CERTIFICATION CZ, s.r.o. certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standard detailed below:

Standard

ČSN EN ISO 9001:2016

Scope of supply

PRODUCTION OF COAL TAR PITCH, INCLUDING STORAGE IN THE TERMINAL DEZA POLSKA AND SHIP LOADING.
PRODUCTION OF TAR OILS, ANTHRACENE, NAPHTHALENE, CARBAZOLE, ACENAPHTHENE, PYRENE AND THEIR DERIVATIVES.
PRODUCTION OF PHTHALIC ANHYDRIDE, ESTERS AND ANTHRAQUINONE.
PRODUCTION OF BENZENE, TOLUENE, XYLENE MIXTURES, PHENOL, CRESOLS AND XYLENOLE MIXTURES.
ENERGY PRODUCTION, WATER MANAGEMENT, WASTE DISPOSAL BY INCINERATION.
OTHER RELATED ACTIVITIES.

Original Approval Date: 19-11-1996

Certification / Recertification Cycle Start Date: 13-05-2024

Certification / Recertification Cycle End Date: 12-05-2027

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: 12-05-2027

To check this certificate validity please call: +420 210 088 215

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.

Version 1 Issue Date: 13-05-2024

Certificate Number: CZ012316

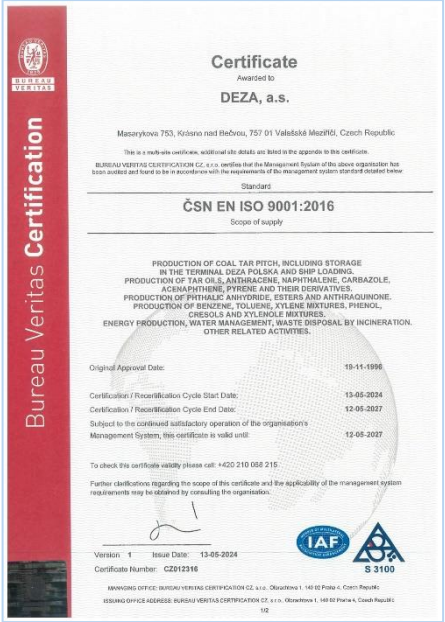
IAF S 3100

MANAGING OFFICE: BUREAU VERITAS CERTIFICATION CZ, s.r.o., Olbrachtova 1, 140 62 Praha 4, Czech Republic

ISSUING OFFICE ADDRESS: BUREAU VERITAS CERTIFICATION CZ, s.r.o., Olbrachtova 1, 140 62 Praha 4, Czech Republic

1/2

ČSN EN ISO 9001 (QMS)
since 1996



Bureau Veritas Certification

Certificate

Awarded to

DEZA, a.s.

Masarykova 753, Krásno nad Bečvou, 757 01 Valašské Meziříčí, Czech Republic

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Standard

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Scope of supply

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PRODUCTION OF TAR OILS, ANTHRACENE, NAPHTHALENE, CARBAZOLE, ACENAPHTHENE, PYRENE AND THEIR DERIVATIVES.
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OTHER RELATED ACTIVITIES.

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Version 1 Issue Date: 13-05-2024

Certificate Number: CZ012316

IAF S 3100

MANAGING OFFICE: BUREAU VERITAS CERTIFICATION CZ, s.r.o., Olbrachtova 1, 140 62 Praha 4, Czech Republic

ISSUING OFFICE ADDRESS: BUREAU VERITAS CERTIFICATION CZ, s.r.o., Olbrachtova 1, 140 62 Praha 4, Czech Republic

1/2

ČSN EN ISO 14001 (EMS)
since 2012

Bureau Veritas Certification

Certificate

Awarded to

DEZA, a.s.

Masarykova 753, Krásno nad Bečvou, 757 01 Valašské Meziříčí, Czech Republic

This is a multi-site certificate, additional site details are listed in the appendix to this certificate.

BUREAU VERITAS CERTIFICATION CZ, s.r.o. certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standard detailed below:

Standard

ČSN ISO 45001:2018

Scope of supply

PRODUCTION OF COAL TAR PITCH, TAR OILS, ANTHRACENE, NAPHTHALENE, CARBAZOLE, ACENAPHTHENE, PYRENE AND THEIR HOMOLOGUES.
PRODUCTION OF PHTHALIC ANHYDRIDE, ESTERS AND ANTHRAQUINONE.
PRODUCTION OF BENZENE, TOLUENE, MIXED XYLENES, PHENOL, CRESOLS AND MIXTURE OF XYLENOLS.
ENERGY PRODUCTION, WATER MANAGEMENT, WASTE DISPOSAL BY INCINERATION.
OTHER RELATED ACTIVITIES.

Original Approval Date: 20-05-2021

Certification / Recertification Cycle Start Date: 13-05-2024

Certification / Recertification Cycle End Date: 12-05-2027

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: 12-05-2027

To check this certificate validity please call: +420 210 088 215

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.

Version 1 Issue Date: 13-05-2024

Certificate Number: CZ012318

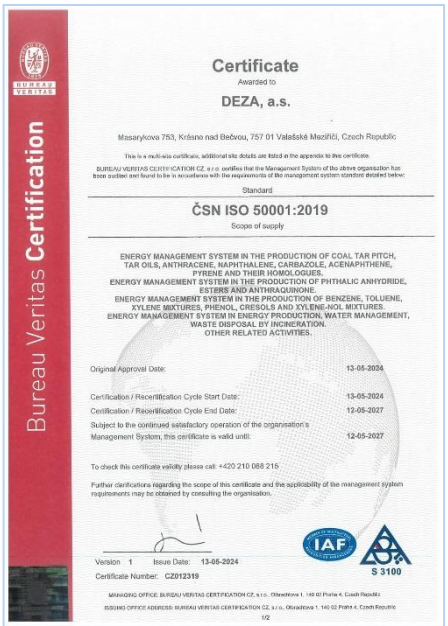
IAF S 3100

MANAGING OFFICE: BUREAU VERITAS CERTIFICATION CZ, s.r.o., Olbrachtova 1, 140 62 Praha 4, Czech Republic

ISSUING OFFICE ADDRESS: BUREAU VERITAS CERTIFICATION CZ, s.r.o., Olbrachtova 1, 140 62 Praha 4, Czech Republic

1/2

ČSN ISO 45 001 (HSMS)
since 2021



Bureau Veritas Certification

Certificate

Awarded to

DEZA, a.s.

Masarykova 753, Krásno nad Bečvou, 757 01 Valašské Meziříčí, Czech Republic

This is a multi-site certificate, additional site details are listed in the appendix to this certificate.

BUREAU VERITAS CERTIFICATION CZ, s.r.o. certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standard detailed below:

Standard

ČSN ISO 50001:2019

Scope of supply

ENERGY MANAGEMENT SYSTEM IN THE PRODUCTION OF COAL TAR PITCH, TAR OILS, ANTHRACENE, NAPHTHALENE, CARBAZOLE, ACENAPHTHENE, PYRENE AND THEIR HOMOLOGUES.
ENERGY MANAGEMENT SYSTEM IN THE PRODUCTION OF PHTHALIC ANHYDRIDE, ESTERS AND ANTHRAQUINONE.
ENERGY MANAGEMENT SYSTEM IN THE PRODUCTION OF BENZENE, TOLUENE, XYLENE MIXTURES, PHENOL, CRESOLS AND XYLENE-NOL MIXTURES.
ENERGY MANAGEMENT SYSTEM IN ENERGY PRODUCTION, WATER MANAGEMENT, WASTE DISPOSAL BY INCINERATION.
OTHER RELATED ACTIVITIES.

Original Approval Date: 13-05-2024

Certification / Recertification Cycle Start Date: 13-05-2024

Certification / Recertification Cycle End Date: 12-05-2027

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: 12-05-2027

To check this certificate validity please call: +420 210 088 215

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.

Version 1 Issue Date: 13-05-2024

Certificate Number: CZ012319

IAF S 3100

MANAGING OFFICE: BUREAU VERITAS CERTIFICATION CZ, s.r.o., Olbrachtova 1, 140 62 Praha 4, Czech Republic

ISSUING OFFICE ADDRESS: BUREAU VERITAS CERTIFICATION CZ, s.r.o., Olbrachtova 1, 140 62 Praha 4, Czech Republic

1/2

ČSN ISO 50 001 (EnMS)
since 2024

SILVER
2023
ecovadis
Sustainability Rating

Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY