Contents

1. MSZ JSC's Overview and Core Activities

MSZ Machinery Manufacturing Plant, Joint-Stock Company (MSZ JSC) is the oldest nuclear industry undertaking in the Russian Federation. MSZ JSC's industrial site is situated in the eastern part of Elektrostal, the Moscow Region, in the city's industrial area.

The plant was established in 1916 by Nikolay Vtorov (Russian merchant) as a munition filling (ordnance) factory to supply ammunition for the Russian army in the First World War years. The first product batch was manufactured on February 28, 1917. This date is celebrated as the official date of the establishment of the plant.

Over the years of the Great Patriotic War (1941-1945) our plant was manufacturing mines, bombs, artillery shells and rockets, including ammunition for truck-mounted multi-barrelled rocket launchers known as "Katyusha" *(an affectionate diminutive of Ekaterina – a female name – translator's note* [*t/n*]). In 1943, the plant was decorated with the highest national award – the Order of Lenin - for its essential contribution to the cause of Victory over Nazi Germany as well as the labour feat of the plant's team. In late 40-s – early 50-s, the plant masters a series of nuclear technologies related to the creation of the country's "nuclear shield". These achievements were celebrated by awarding the second Order of Lenin to our plant.

1954 marked the beginning of fuel rod and fuel assembly manufacture for the nuclear power industry. The next stage was the organisation of core production for the nuclear marine fleet. 1965 saw the launch of series manufacture of fuel rods and fuel assemblies for nuclear power plants (NPPs).

TODAY, MSZ MACHINERY MANUFACTURING PLANT, JOINT-STOCK COMPANY (MSZ JSC) IS INCLUDED IN TVEL JSC (FUEL COMPANY OF SC ROSATOM) STRUCTURE AND OPERATES AS THE LARGEST COMPANY THAT MANUFACTURES NUCLEAR FUEL FOR POWER AND RESEARCH REACTORS.

Within the company's premises, there are 10 shops, 5 laboratories, company functions and services as well as a dependent subsidiary company (OOO MSZ-Mekhanika, a limited liability company)..

Предприятие является одним из крупнейших мировых производителей ядерного топлива, имеющих полный цикл производства, включающий в себя:

1. Chemical and metallurgical operations;
2. Powder processing operations;
3. Component manufacture;
4. Fuel rod manufacture;
5. Fuel assembly (FA) manufacture;
6. Absorber rod and control assembly manufacture;
7. Set of benches for physical tests and batching of the output product;
8. Storage facilities for the finished product.

The overall capacity of uranium production, including in-process scrap and rejected material, is about 1400 tU/year. MSZ JSC's product quality conforms to the current requirements set forth by nuclear product consumers.

MSZ JSC manufactures and supplies FAs for different reactor types, such as VVER-440, VVER-1000, RBMK-1000, BN-600, BN-800 PWR, BWR, CEFR, CFR, for research reactors and naval vessel reactors as well as finished products – uranium dioxide, UO_2 and UO_2-Gd_2O_3 fuel pellets as well as fuel rods, component thereof and also fuel assemblies for nuclear fuel production at the plants within and outside Russia.

Besides nuclear fuel, MSZ JSC manufactures absorber rods as well as control assemblies for control and protection systems (CPS) for all types of Russian-design reactors.

On an ongoing basis, MSZ JSC takes part in development activities related to new and upgraded products for NPPs as well as reactors of various types, performs prove-out testing of their manufacturing processes, launches these products into manufacture, involving manufacture of pilot product batches and samples, masters their series manufacture and improves their manufacturing processes. Examples of such products include fuel assemblies for BN-800 reactor, fuel assemblies and control assemblies for VVER-1200 reactor, working fuel assemblies RK-3 for VVER-440 reactor, TVSA-T and TVSA-PLUS for VVER-1000 reactor, absorber rods and control assemblies as well as test product items for prospective BREST and BN-1200 reactors.

The company has created technologies for manufacturing products used by companies operating in the nuclear power industry as well as in other industries within the Russian Federation. Innovative scientific and technological advances are the basis for the applied flow processes.

Annually, the company invests substantial amounts of money to upgrade and expand its production; as of today, all the nuclear fuel fabrication processes have been automated and mechanised.

MSZ JSC was presented with high awards in recognition of its employee team’s contribution to the cause of environment preservation: the merit badge for the contribution to environmental culture and safety culture of Rosatom; award “For the Shown Initiative and Significant Contribution to the Cause of Environment Protection” by V.I. Vernadsky Nongovernmental Ecological Foundation, commendations from the Department of Education of the Administration of the City of Elektrostal, the Moscow Region, and the the Administration of the Municipal General Education Institution - General

Secondary School No. 1 for providing assistance in teaching the younger generation the basics of environmental protection.

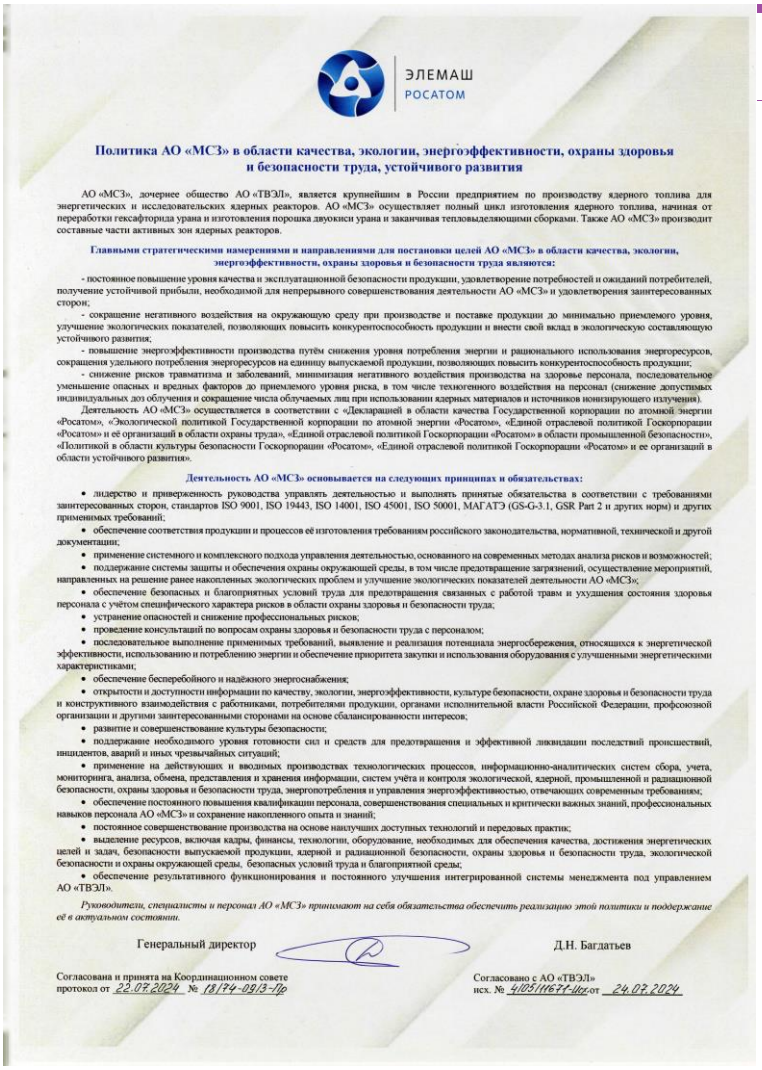
2. MSZ JSC's Policy on Quality, Environment, Energy Efficiency, Occupational Health & Safety and Sustainable Development

MSZ JSC has established its Policy on Quality, Environment, Energy Efficiency, Occupational Health & Safety and Sustainable Development (minutes No. 18/74-09/3-Пр dated July 22, 2024) pursuant to the decision taken at TVEL JSC's Coordination Board meeting (minutes No. 30 dated May 29, 2024) and consistent with TVEL JSC's integrated management system. The quality and environmental policies previously applied at MSZ JSC lost their validity. The valid Policy developed in accordance with the estalibshed procedure has been communicated to the personnel.

REDUCING ADVERSE ENVIRONMENTAL IMPACTS IN PRODUCT MANUFACTURE AND DELIVERY TO AS LOW AS REASONABLY PRACTICABLE, IMPROVING ENVIRONMENTAL PERFORMANCE ALLOWING TO ENHANCE PRODUCT COMPETITIVENESS AND MAKE ITS CONTRIBUTION TO THE ENVIRONMENTAL COMPONENT OF THE SUSTAINABLE DEVELOPMENT ARE AMONG MSZ JSC'S PRINCIPAL ENVIRONMENT-RELATED STRATEGIC INTENTIONS AND DIRECTIONS.

MSZ JSC's environmental activities are based on the following principles and responsibilities:

- *ensuring conformity of the product and its manufacturing processes to the requirements of the laws of the Russian Federation, regulatory, technical and other documentation;*
- *using systematic and comprehensive approach to manage activities, based on contemporary methods for analysing risks and opportunities;*
- *maintaining the environmental safety and protection system, including pollution prevention, taking actions to address previously accumulated environmental concerns and improving environmental performance of MSZ JSC's activities;*



ЭЛЕМАШ
РОСАТОМ

Политика АО «МСЗ» в области качества, экологии, энергоэффективности, охраны здоровья и безопасности труда, устойчивого развития

АО «МСЗ», дочернее общество АО «ТВЭЛ», является крупнейшим в России предприятием по производству ядерного топлива для энергетических и исследовательских ядерных реакторов. АО «МСЗ» осуществляет полный цикл изготовления ядерного топлива, начиная от переработки гексафторида урана и изготовления порошка двуокиси урана и заканчивая тепловыделяющими сборками. Также АО «МСЗ» производит составные части активных зон ядерных реакторов.

Главными стратегическими намерениями и направлениями для постановки целей АО «МСЗ» в области качества, экологии, энергоэффективности, охраны здоровья и безопасности труда являются:

- постоянное повышение уровня качества и эксплуатационной безопасности продукции, удовлетворение потребностей и ожиданий потребителей, получение устойчивой прибыли, необходимой для непрерывного совершенствования деятельности АО «МСЗ» и удовлетворения заинтересованных сторон;
- сокращение негативного воздействия на окружающую среду при производстве и поставке продукции до минимально приемлемого уровня, улучшение экологических показателей, позволяющих повысить конкурентоспособность продукции и внести свой вклад в экологическую составляющую устойчивого развития;
- повышение энергоэффективности производства путём снижения уровня потребления энергии и рационального использования энергоресурсов, сокращения удельного потребления энергоресурсов на единицу выпускаемой продукции, позволяющих повысить конкурентоспособность продукции;
- снижение рисков травматизма и заболеваний, минимизация негативного воздействия производства на здоровье персонала, последовательное уменьшение опасных и вредных факторов до приемлемого уровня риска, в том числе техногенного воздействия на персонал (снижение допустимых индивидуальных доз облучения и сокращение числа облучаемых лиц при использовании ядерных материалов и источников ионизирующего излучения).

Деятельность АО «МСЗ» осуществляется в соответствии с «Декларацией в области качества Государственной корпорации по атомной энергии «Росатом», «Экологической политикой Государственной корпорации по атомной энергии «Росатом», «Единой отраслевой политикой Госкорпорации «Росатом» и её организаций в области охраны труда», «Единой отраслевой политикой Госкорпорации «Росатом» в области промышленной безопасности», «Политикой в области культуры безопасности Госкорпорации «Росатом», «Единой отраслевой политикой Госкорпорации «Росатом» и ее организаций в области устойчивого развития».

Деятельность АО «МСЗ» основывается на следующих принципах и обязательствах:

- лидерство и приверженность руководства управлять деятельностью и выполнять принятые обязательства в соответствии с требованиями заинтересованных сторон, стандартов ISO 9001, ISO 19443, ISO 14001, ISO 45001, ISO 50001, МАГАТЭ (GS-G-3.1, GSR Part 2 и других норм) и других применимых требований;
- обеспечение соответствия продукции и процессов её изготовления требованиям российского законодательства, нормативной, технической и другой документации;
- применение системного и комплексного подхода управления деятельностью, основанного на современных методах анализа рисков и возможностей;
- поддержание системы защиты и обеспечения охраны окружающей среды, в том числе предотвращение загрязнений, осуществление мероприятий, направленных на решение ранее накопленных экологических проблем и улучшение экологических показателей деятельности АО «МСЗ»;
- обеспечение безопасных и благоприятных условий труда для предотвращения связанных с работой травм и ухудшения состояния здоровья персонала с учётом специфического характера рисков в области охраны здоровья и безопасности труда;
- устранение опасностей и снижение профессиональных рисков;
- проведение консультаций по вопросам охраны здоровья и безопасности труда с персоналом;
- последовательное выполнение применимых требований, выявление и реализация потенциала энергосбережения, относящихся к энергетической эффективности, использованию и потреблению энергии и обеспечение приоритета закупки и использования оборудования с улучшенными энергетическими характеристиками;
- обеспечение бесперебойного и надёжного энергоснабжения;
- открытости и доступности информации по качеству, экологии, энергоэффективности, культуре безопасности, охране здоровья и безопасности труда и конструктивного взаимодействия с работниками, потребителями продукции, органами исполнительной власти Российской Федерации, профсоюзной организации и другими заинтересованными сторонами на основе сбалансированности интересов;
- развитие и совершенствование культуры безопасности;
- поддержание необходимого уровня готовности сил и средств для предотвращения и эффективной ликвидации последствий происшествий, инцидентов, аварий и иных чрезвычайных ситуаций;
- применение на действующих и вводимых производствах технологических процессов, информационно-аналитических систем сбора, учета, мониторинга, анализа, обмена, представления и хранения информации, систем учёта и контроля экологической, ядерной, промышленной и радиационной безопасности, охраны здоровья и безопасности труда, энергопотребления и управления энергоэффективностью, отвечающих современным требованиям;
- обеспечение постоянного повышения квалификации персонала, совершенствования специальных и критически важных знаний, профессиональных навыков персонала АО «МСЗ» и сохранение накопленного опыта и знаний;
- постоянное совершенствование производства на основе наилучших доступных технологий и передовых практик;
- выделение ресурсов, включая кадры, финансы, технологии, оборудование, необходимых для обеспечения качества, достижения энергетических целей и задач, безопасности выпускаемой продукции, ядерной и радиационной безопасности, охраны здоровья и безопасности труда, экологической безопасности и охраны окружающей среды, безопасных условий труда и благоприятной среды;
- обеспечение результативного функционирования и постоянного улучшения интегрированной системы менеджмента под управлением АО «ТВЭЛ».

Руководители, специалисты и персонал АО «МСЗ» принимают на себя обязательства обеспечить реализацию этой политики и поддержание её в актуальном состоянии.

Генеральный директор Д.Н. Багдатьев

Согласована и принята на Координационном совете протокол от 22.07.2024 № 18/74-09/3-1/р

Согласовано с АО «ТВЭЛ» исх. № 4/05/11677-Исх от 24.07.2024

- *transparency and availability of information on environment as well as constructive interactions with employees, product users, executive bodies of the Russian Federation, the trade union organisation and other interested parties, based on the balance of interests;*
- *maintaining the required preparedness of manpower and resources to prevent and efficiently respond to occurrences, incidents, accidents and other emergencies;*
- *with reference to currently operating and to-be-put-into-operation production works – applying state-of-the-art flow processes, information analysis systems for acquiring, recording, monitoring, analysing, exchanging, submitting and retaining information as well as systems for recording and monitoring environmental, nuclear, industrial and radiation safety;*
- *continual improvement of production, based on the best available technologies and best practices;*
- *allocation of resources, including human resources, finances, technologies and equipment required for nuclear and radiation safety as well as environmental safety and protection.*

Actions aimed at implementing the immediate environmental objectives declared in MSZ JSC's Policy on Quality, Environment, Energy Efficiency, Occupational Health & Safety and Sustainable Development are included in TVEL JSC's Programme for Achieving Environmental Objectives. Based on half-year results, MSZ JSC submits to TVEL JSC the progress report on the implementation of actions related to MSZ JSC.

3. Integrated Management System

Under TVEL JSC's control, MSZ JSC has established its integrated management system that is functioning and being improved. This system comprises the following:

- *the Corporate Quality Management System (CQMS) consistent with the requirements of ISO 9001:2015 international standard (certified in 2007);*
- *the Corporate Environmental Management System (CEMS) consistent with the requirements of ISO 14001:2015 international standard (certified in 2009);*
- *the Corporate Occupational Health and Safety Management System (COHS MS), consistent with the requirements of ISO 45001:2018 (certified in 2010);*
- *the Corporate Energy Management System (CEnMS) consistent with the requirements of ISO 50001:2018 international standard (certified in 2014).*

MSZ JSC's integrated management system has been certified as complying to the requirements of ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 and ISO 50001:2018 international standards. The valid certificate of conformity was issued by INTERCERTIFIKA LLC management systems certification body on August 28, 2024, valid through August 27, 2027.

The scope of MSZ JSC's integrated management system covers manufacture and delivery of fuel assemblies and materials for power reactors as well as their core components along with their control and protection system (CPS) components.

Within July 29, 2024 through August 2, 2024, MSZ JSC's integrated management system was audited on site by the representatives of INTERCERTIFIKA LLC management systems certification body and NABCB (India) accreditation body.

Based on the audit results, MSZ JSC's integrated management system in place, on the whole, was recognised as conforming to the requirements specified in GOST R ISO 9001-2015, GOST R ISO 19443-2020, GOST R ISO 14001-2016, GOST R ISO 45001-2020 and GOST R ISO 50001-2023 standards. It was noted that MSZ JSC's integrated management system is maintained in good functioning order as well as has the potential for further development and

improvement. All the actions scheduled based on the audit results were completed within the set time limits.

СЕРТИФИКАТ

ИНТЕРСЕРТИФИКА

соответствия системы менеджмента требованиям стандартов ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 и ISO 50001:2018

В соответствии с правилами сертификации подтверждено выполнение требований стандартов в организации

Акционерное общество

"Машиностроительный завод"

144001, Российская Федерация, г. Электросталь Московской области, ул. Карла Маркса, д. 12

ЭЛЕМАШ РОСАТОМ

ТВЭЛ РОСАТОМ

в области:

Производство и поставка тепловыделяющих сборок и материалов для них для энергетических реакторов, а также составных частей их активных зон и элементов систем регулирования и защиты.

Номер сертификата: 100 00086/1, 104 00025/1, 118 00022/1, 275 00005/1

Действителен до: 27.08.2027

Действителен с: 28.08.2024

Отчет по аудиту №: 1110 0148 G0

Сертификация проведена в соответствии с процедурой и предусматривает проведение регулярных наблюдательных аудитов. Действие сертификата распространяется только на локации, указанные в сертификате.

Данный сертификат действителен только вместе с основным сертификатом.

Руководитель Органа по сертификации
ООО "ИНТЕРСЕРТИФИКА"

Москва, 27.08.2024

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

NABCB QM077 NABCB EM028 NABCB OH017 NABCB EN007

Проверить статус сертификата можно в глобальной базе аккредитованных сертификатов IAF CertSearch, размещенной по адресу www.iafcertsearch.org, или перейдя по ссылке из QR-кода

На официальных сертификатах размещены голограммы

Сертификат выдан Органом по сертификации систем менеджмента ООО "ИНТЕРСЕРТИФИКА", 117393, Российская Федерация, г. Москва, ул. Архитектора Власова, 33, пом. 19, www.intercertifika.ru

ИНТЕРСЕРТИФИКА

4. Industrial Environmental Control (IEC), Radiation & Environmental Monitoring

In accordance with the requirements defined in article 67 of Federal Law No. 7-FZ dated January 10, 2002, On Environmental Protection, article 11 of Federal Law No. 3-FZ dated January 9, 1996, On Radiation Safety of the Population, article 32 Federal Law No. 52-FZ dated March 30, 1999, On Sanitary and Epidemiological Well-Being of the Population, MSZ JSC carries out radioecological monitoring of pollutant contents in environmental compartments (air, water, soil, vegetation, aquatic sediments and atmospheric precipitations). MSZ JSC has established its Industrial Environmental Control (IEC) Programme No. 18/76-11/160 dated April 24, 2024, which specifies compliance with the requirements of the legislation related to environment conservation.

The sanitary protection zone for the operating group of companies - MSZ JSC and VNIINM JSC, taking into account the economic activities of lessees and sub-lessees, has been established by Decision No. 325-03 dated October 2, 2023, awarded by the Moscow Region Directorate of the Russian Federal Service for Surveillance on Consumer Rights Protection and

Human Well-Being. The sanitary protection zone boundaries have been entered in the Unified State Register of Immovable Property.

Based on SP 2.6.1.2612-10 Basic Sanitary Rules of Radiation Safety (OSPORB-99/2010) requirements and in accordance with MU 2.6.5.08-2019 Radiation Facility Potential Hazard Categorisation procedural guidelines as well as after examining the FBSI SRC Burnasyan FMBC's 2024 Research Report on Potential Radiation Hazard Category Justification for MSZ JSC, it was decided, upon agreement with Interregional Directorate No. 21 of the Federal Medical-Biological Agency (FMBA) of Russia, to rank MSZ JSC's industrial site and tailings storage facility as a facility of category III potential radiation hazard (No. 18/56-30-дсп/1201 dated June 5, 2024).

As per OSPORB-99/2010 it. 3.2, the sanitary protection zone for category III radiation facilities is limited to the facility premises, no observation area is required to be established.

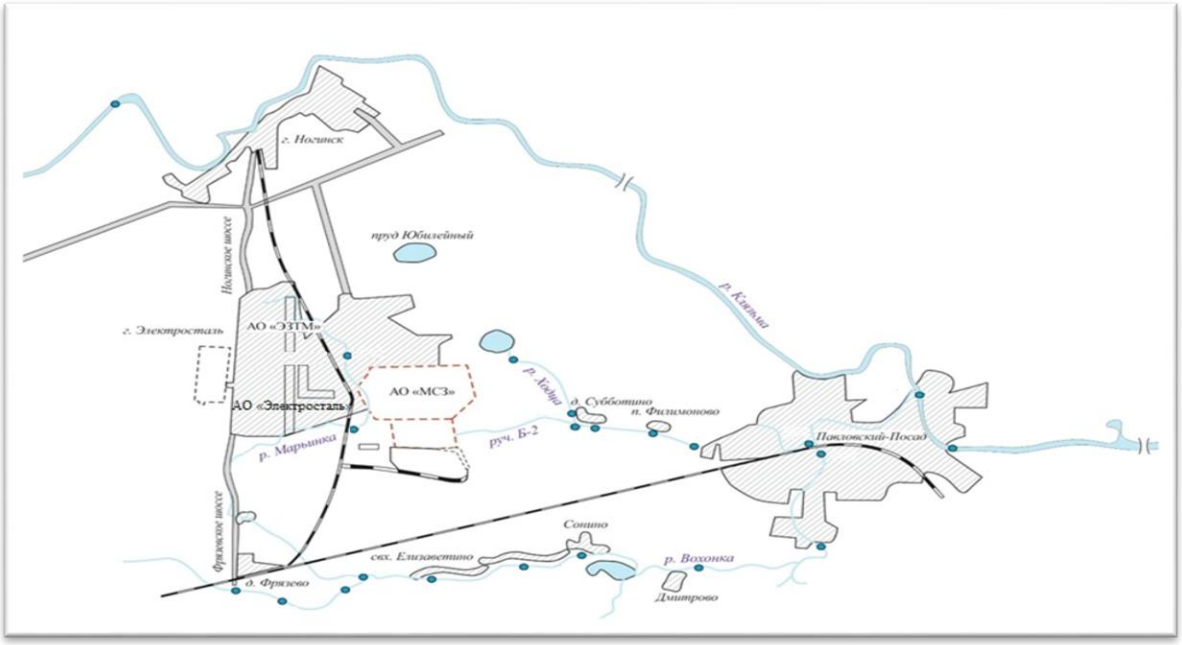
Based on the requirements of:

- *Federal Law No. 2385-1-FZ dated February 21, 1992, On Subsoil;*
- *Regulation on the Procedure for Conducting the State Monitoring of the Russian Federation Subsoil Condition (order of the Ministry of Natural Resources and Environment of the Russian Federation No. 433 dated May 21, 2001);*
- *Order of the State Atomic Energy Corporation Rosatom (SC Rosatom) No. 1/118-П dated July 21, 2010;*
- *On-Site Subsoil Condition Monitoring (OSCM) Concept for Companies and Organisation of SC Rosatom;*
- *Regulation on the Procedure for Conducting On-Site Subsoil Condition Monitoring (OSCM) in Companies and Organisations of SC Rosatom*

MSZ JSC has established its On-Site Subsoil Condition Monitoring Programme No. 18/56-26дсп/2620 dated March 19, 2019, that specifies the requirements for the on-site subsoil condition monitoring. This Programme has been agreed upon with the Federal State Budgetary Institution Hydrospetzgeologiya as well as Interregional Directorate No. 21 of the Federal Medical-Biological Agency (FMBA) of Russia and released by MSZ JSC's Director General.

No measurements conducted in 2024 as per the schedule of the On-Site Subsoil Condition Monitoring Programme demonstrated changes towards worsening of subsoil conditions.

Location map of monitoring points outside MSZ JSC's premises

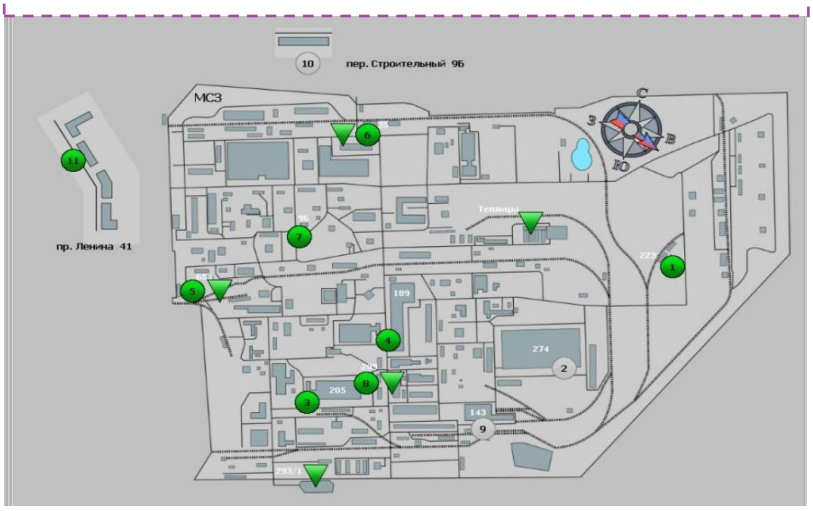


In 2020 – 2023, the Radiation & Chemical Situation Information and Measurement System was in operation at MSZ JSC. In 2024, after examining this system's useful life, its operation was suspended. Design activities to upgrade the Radiation & Chemical Situation Information and Measurement System are scheduled to be carried out in 2025.

The Radiation & Chemical Situation Information and Measurement System comprises the following:

- *nine (9) radiation & chemical situation monitoring sites within MSZ JSC's industrial site;*
- *two (2) radiation & chemical situation monitoring sites on the territory of Elektrostal adjoining to MSZ JSC (Lenin avenue, Stroitelniy drive);*
- *γ-radiation dose rate monitoring sensors БДМГ-100 (5 pcs.);*
- *meteorological system МК-15;*

Location map of Sensors of the Radiation &Chemical Situation Information and Measurement System within and outside MSZ JSC's industrial site



- *the central computerised control station is situated in the Mobilisation Training, Civil Defence, Emergency & Fire Protection Department as well as in the Nuclear and Radiation Safety Service.*

The Radiation & Chemical Situation Information and Measurement System allows the following parameters to be measured:

- *hydrofluoric vapour concentration in atmospheric air;*
- *hydrochloric vapour concentration in atmospheric air;*
- *nitrogen dioxide vapour concentration in atmospheric air;*
- *sulphurous acid anhydride vapour concentration in atmospheric air;*
- *ammonia vapour concentration in atmospheric air;*
- *carbon oxide concentration in atmospheric air;*
- *the volumetric activity of α-emitting radionuclides in atmospheric air;*
- *γ-radiation equivalent dose rate;*
- *temperature, wind direction & velocity, humidity and atmospheric pressure measurements.*

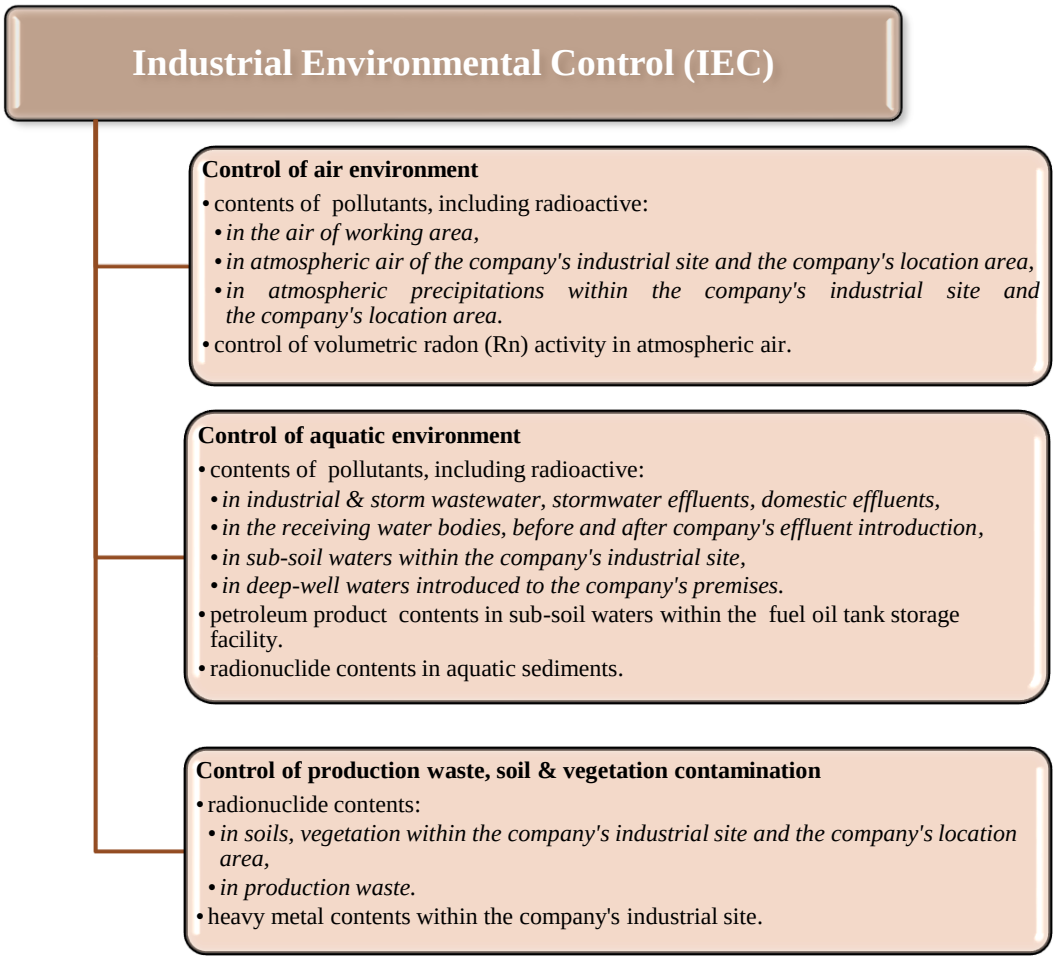
This system performs continuous 24/7 automated measurements and at established 1-minute intervals indicates concentration levels of the hazardous chemicals applied at MSZ JSC, and carbon oxide, that in case of a wildfire could be generated in the air within the industrial site of the company as well as on the adjoining territories of Elektrostal. Also, there are continuous 24/7 real-time measurements of γ-radiation dose rate. Measurement ranges of controlled substance concentrations – within the limits from 0.5 MAC (maximum allowable concentration) for the population up to 5.0 MAC for the working area.

The established system makes it possible to control the parameters of chemical, radiation and meteorological situation within MSZ JSC premises using state-of-the-art hardware and software as well as to function as an alert system if the specified limits have been exceeded.

In 2020, within the programme for developing Information Analysis Systems of Radioecological Monitoring applied in SC Rosatom's companies MSZ JSC has put its Information Analysis System of Radioecological Monitoring in operation. This system gathers data into the primary database, processes this data and integrates it with the Control Centre of the Information Analysis System of Radioecological Monitoring. In 2021, the Information Analysis System of Radioecological Monitoring started to be used for its intended purpose.

Monitoring is conducted by two laboratories that have at their disposal the measuring instruments (portable and laboratory-scale) verified in accordance with the established procedure, following the test methods specified in the appendices to the test laboratory accreditation certificates Nos. РОСС RU.0001.511620 and RA.RU.22ЭЛ36 issued by the Federal Accreditation Service of the Russian Federation (Rusaccreditation).

Environmental monitoring is performed in the three basic undernoted directions:



The laboratories use the most advanced devices and measuring instruments: spectrophotometers, spectrometers, spectrofluorimetric analysers, photoelectrocalorimeters, ion meters, oxygen meters, dosimeters, α-β-radiometers, radon (Rn) radiometers as well as other laboratory-scale equipment.

For the purpose of improving the environmental monitoring quality as well as sanitary and hygienic work environment, MSZ JSC restocks its measurement equipment on a regular basis.

The laboratory staff who perform sampling and monitor pollutant discharges and releases continually advance their qualifications in the specialised general-education institutions accredited to carry out training/education activities.

In 2024, environmental control and monitoring yielded the following results:

- *annual average radionuclide volumetric α-activity in atmospheric air within MSZ JSC's industrial site and sanitary protection zone as well as the region of professional interests of the City of Elektrostal stood at 0.01 Bq/m^3, which does not exceed the specified level of 0.03 Bq/m^3;*
- *annual average total specific α-activity of radionuclides in water of open water bodies within the sanitary protection zone stood at 0.33 Bq/kg, in atmospheric precipitation (snow) within MSZ JSC's location area it stood at 0.148 Bq/kg; and within the company's premises this parameter stood at 0.133 Bq/kg, which does not exceed the intervention levels of 2.8- 3.0 Bq/kg for uranium isotope contents in drinking water;*
- *annual average total α-activity of radionuclides in water of the rivers within MSZ JSC's location area stood at 0.454 Bq/kg, which does not exceed the specified level of 2.6 Bq/kg (it. 9 in RB 28-56-17 Provisional Regulation on Radiation Monitoring at MSZ PJSC);*
- *average radionuclide contamination of aquatic sediments within MSZ JSC's premises stood at 274 Bq/kg, and of receiving water bodies (the Khodtsa, the Vokhonka and the Klyazma rivers) within MSZ JSC's location area stood at 222 Bq/kg, which does not exceed the minimum significant specific activity of 1000 Bq/kg for uranium isotopes;*
- *radionuclide contamination value for vegetation within MSZ JSC's premises and location area stood below the lower limit of the range of the applied test method (<180 Bq/kg), which does not exceed the specified level of 1000 Bq/kg (it. 9 in RB 28-56-17 Provisional Regulation on Radiation Monitoring at MSZ PJSC);*
- *average radionuclide contamination value for topsoil within MSZ JSC's premises stood at 324 Bq/kg, whereas within MSZ JSC's location area this parameter stood at 214 Bq/kg, hich does not exceed the minimum significant specific activity of 1000 Bq/kg for uranium isotopes;*

- *average γ-radiation equivalent dose rate within MSZ JSC's industrial site stood at 0.15 μSv/h, whereas within MSZ JSC's location area this parameter stood at 0.14 μSv/h, annual average external radiation equivalent dose rate at the sanitary protection zone boundary stood at 0.17 μSv/h.*

5. Environmental Impacts

In accordance with item 3 of article 11 of Federal Law No. 219-FZ dated July 21, 2014, On Amendment for Federal Law "On Environmental Protection" and Certain Legislative Acts of the Russian Federation as well as the procedure specified in article 69.2 of Federal Law No. 7-FZ dated January 10, 2002, On Environmental Protection, MSZ JSC has been state-registered as a facility causing adverse environmental impact. Based on the criteria for categorising the facilities causing environmental impacts, approved by Resolution of the Government of the Russian Federations No. 2398 dated December 31, 2020, On Approving the Criteria for Categorising the Facilities Causing Adverse Environmental Impact as Category I, II, III and IV Facilities, MSZ JSC was ranked as category II of adverse environmental impact (facilities with moderate environmental impact) and provided with the issued Certificate of State Registration for a Facility Causing Adverse Environmental Impact No. BIYHA0N8 dated August 24, 2017. In 2021, the information on the facility causing adverse environmental impact was updated, with the result that the following certificated was issued to MSZ JSC: Certificate of Updating the Information on a Facility Causing Adverse Environmental Impact No. 5036588 dated July 7, 2021; it verifies that the category of the company's adverse environmental impact remains unchanged.

Declaration of MSZ JSC's Environmental Impact (No. 10769910 dated June 4, 2024) was updated in accordance with the requirements of the legislation related to environment conservation. This Declaration has been registered by the Interregional Directorate of the Federal Service for Supervision of Natural Resources of the Russian Federation for the Moscow Region and the Smolensk Region.

5.1. Cold and Drinking Water Supply

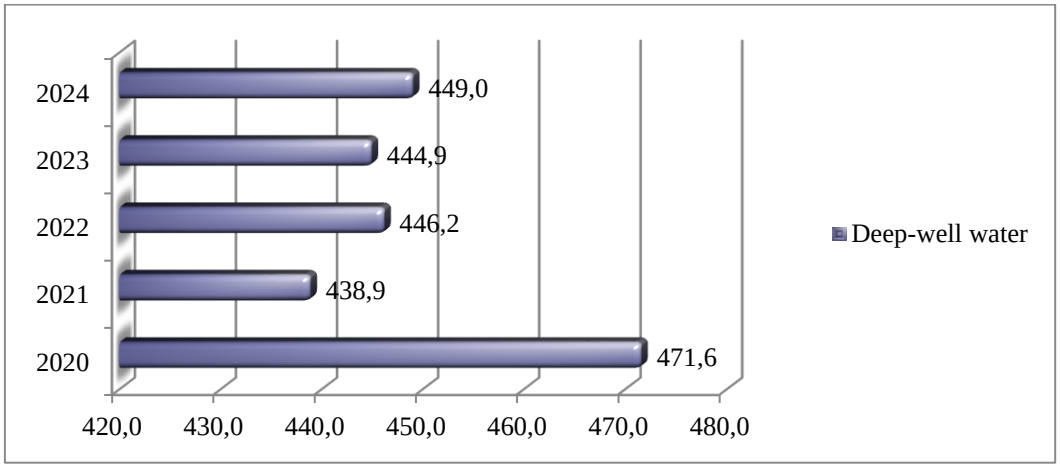
Water supply to satisfy the company's household and drinking, production (flushing of heat consumption systems) as well as process needs of the core production (steam and distilled water production) is provided by withdrawing water from the deepwater wells via the two water intakes with second elevation pumping stations. Since 2017, MSZ JSC's water supply networks have also been connected to the networks of OOO Vodoservis (a limited liability company).

Licence to use subsoil resources МСК 06379 ВЭ specifies the water consumption limit for OOO Energo Transfer (a limited liability company) and other consumers (including MSZ JSC) – 5.346 m^3/day (1951.300 thousand m^3/year). In total, 797.84 thousand m^3 of deep-well water were drawn and purchased in 2024.

Recirculated water supply systems are used at MSZ JSC's functions for equipment cooling. Total amount of water circulating in all of these systems is 7827.57 thousand m^3, which allows MSZ JSC to save up to 40% of the utilised water resources.

The volume of deep-well water (over the years) supplied by the utility company is shown in Diagram 1.

DIAGRAM 1. ACTUAL WATER CONSUMPTION AT MSZ JSC, NOT INCLUDING DEPENDENT SUBSIDIARY COMPANIES AND EXTERNAL ORGANISATIONS LOCATED WITHIN THE COMPANY'S INDUSTRIAL SITE (THOUSAND M^3)



Implementation of the Automated Information and Measurement System for Utility Accounting allowed MSZ JSC to opt out of the computational method for determining the actual water consumption, which, in its turn, made it possible to obtain a more reliable data on the water use for production and domestic needs.

MSZ JSC constantly gives high priority to the operations related to reducing water consumption: the equipment is upgraded and provided with quality and timely repairs in compliance with the routine and preventive maintenance schedules. In 2024, scheduled operations related to routine repairs of worn pipeline segments were carried out to prevent leakages and save water.

5.2. Effluent Disposal

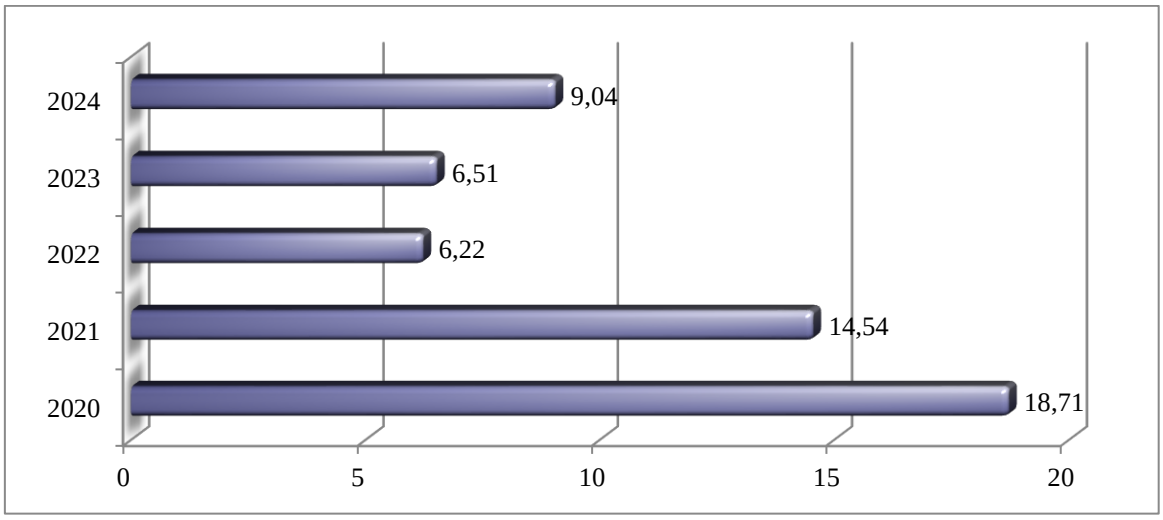
MSZ JSC's industrial site is situated in the eastern part of Elektrostal, the Moscow Region, in the industrial development area of the city. The wastewater receiver is the Khodtsa river, which flows into the Vokhonka river – the right feeder of the Klyazma river.

Domestic wastewater is introduced in the city's sewage conduit and carried to the treatment facilities situated in the city of Pavlosky Posad. After biological treatment, wastewater is introduced into the open hydrographic network – the Klyazma river.

A collection, treatment and conditioning system for industrial & storm wastewater to be used in MSZ JSC's process water supply was commissioned at the end of 2019 at six (6) stormwater sewer outlets, which made it possible to opt out of purchasing river water from Elektrostal Metallurgical Plant, Joint-Stock Company and eliminate pollutant discharge (coming together with MSZ JSC's effluents) into the open hydrographic network.

The actual volume of industrial effluents discharged (over the years) into the storm wastewater sewers (not taking into account surface wastewater) within MSZ JSC's industrial site is shown in Diagram 2.

DIAGRAM 2. TOTAL VOLUME OF INDUSTRIAL EFFLUENTS DISCHARGED IN STORMWATER SEWERS (THOUSAND M³)



In 2024, actual harmful chemical substance discharge in the stormwater sewers amounted to 455.8 tonnes. In 2023, it stood at 498.3 tonnes. The decrease is related to the predominant contribution of rain and thaw wastewater, the amount of which is inversely proportional to the mass of harmful chemical substances, to the actual discharge.

Stormwater in the sewers discharged from MSZ JSC's industrial site is primarily generated by surface run-offs (rain, thaw and road wash-waters), production effluents (conditionally pure production waters) make up less than 2% of that amount.

Hazard class 1, 2 pollutants (extremely hazardous and highly hazardous harmful chemical substances) are not among the pollutants discharged into the open hydrographic network as part of MSZ JSC's wastewater.

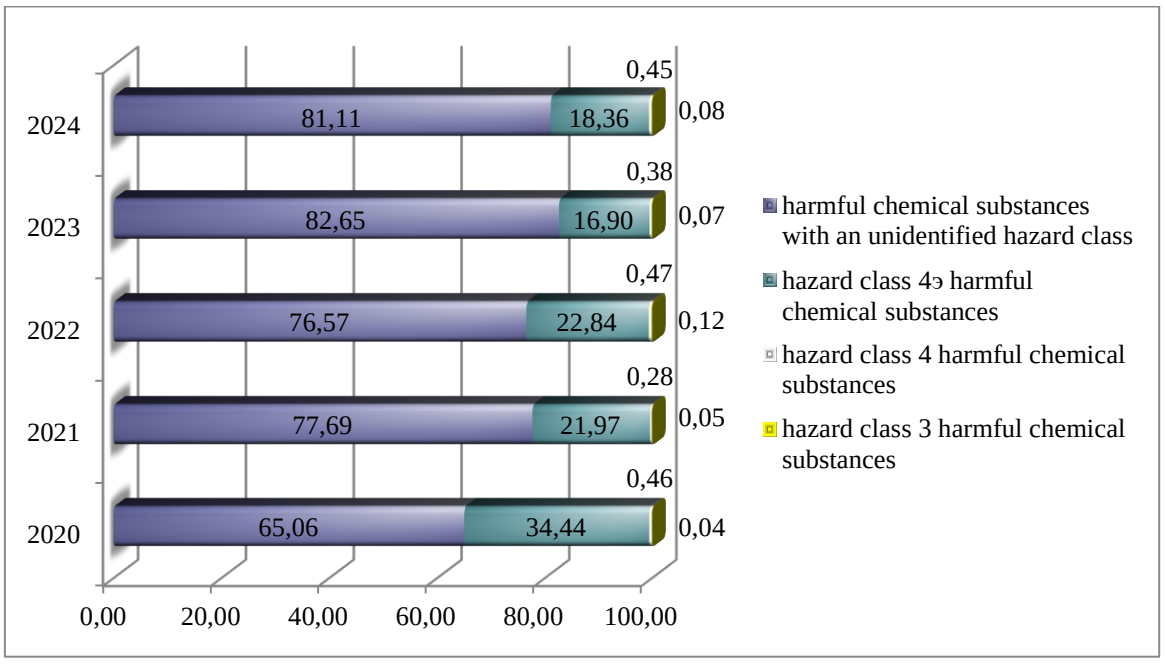
Contribution of substances belonging to:

- *hazard class 3 (hazardous) – less than 1% (fluoride anion, petroleum products, copper, zinc);*
- *hazard class 4 (moderately hazardous) – less than 1% (ammonium ion, total iron);*
- *hazard class 4э (environmental) – on average, up to 23 % (chloride anion, phosphates, nitrate anion, nitrite anion).*

Substances of unidentified hazard class account for over 80 % (dry residue, COD, BOD_{total}, suspended substances and sulphate ion).

Diagram 3 below presents the data on gross discharge of harmful chemical substances in the stormwater sewers broken down by hazard classes.

DIAGRAM 3. GROSS DISCHARGE IN THE STORMWATER SEWERS, BROKEN DOWN BY HAZARD CLASSES (%)



Discharge composition by main pollutants in 2024 is given in Table 1.

TABLE 1. DATA ON DISCHARGES OF HARMFUL CHEMICAL SUBSTANCES INTO THE STORMWATER SEWERS

It. No.	Pollutant	Hazard class	Actual discharge in 2024, tonnes
1	ammonium ion	4	2.049
2	BOD total	-	0.981
3	suspended substances	-	2.844
4	iron	4	0.024
5	copper	3	0.00049
6	petroleum products (petroleum)	3	0.025
7	nitrate anion	4э	50.049
8	nitrite anion	4э	0.207
9	sulphate anion (sulphates)	-	31.125
10	dry residue	-	321.787
11	phosphates (by phosphorus)	4э	0.040
12	fluoride anion	3	0.350
13	chloride anion (chlorides)	4э	33.371
14	COD	-	12.929
15	zinc	3	0.0029

MSZ JSC's wastewater is covered by the standard rates applied to fishery water reservoirs. These standard rates specify the most stringent requirements for the qualitative composition of effluents. Maximum allowable concentrations (MAC) in MSZ JSC's effluents by copper (MAC=0.001 mg/dm^3) and zinc (MAC=0.01 mg/dm^3) are more stringent than in distilled water and by total iron (MAC=0.1 mg/dm^3), ammonium ion (MAC=0.5 mg/dm^3) as well as petroleum products (MAC=0.05 mg/dm^3) MSZ JSC's MAC indicators are more stringent than in drinking water. This means that the deep-well water withdrawn by MSZ JSC prior to its discharge must be after-treated till it conforms to the standard rates applied to fishery waters.

In 2024, actual discharge of harmful chemical substances into the domestic sewers amounted to 263.50 tonnes. In 2023, this amount stood at 294.75 tonnes.

393.10 thousand m^3 of water were supplied to the domestic water disposal systems.

Evolution of pollutants' gross discharge into the domestic sewers is shown in Diagram 4.

DIAGRAM 4. EVOLUTION OF GROSS DISCHARGE OF HARMFUL CHEMICAL SUBSTANCES INTO THE DOMESTIC SEWERS (TONNES)

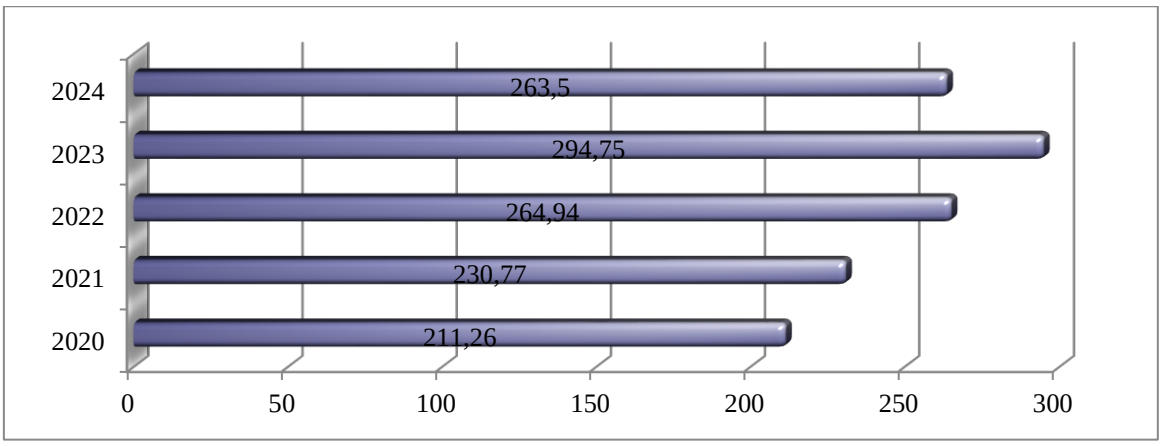
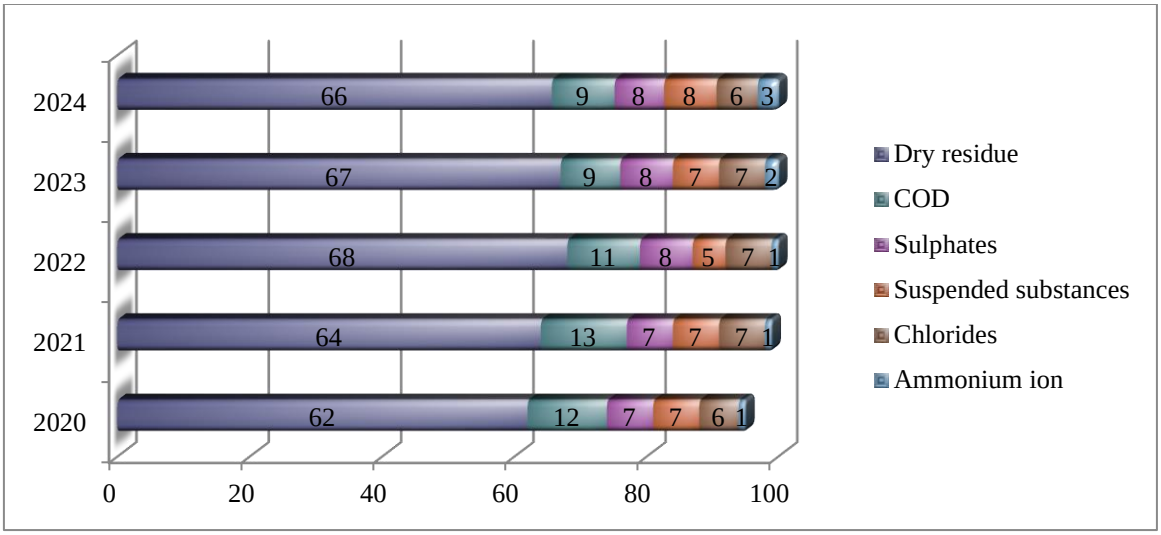


Diagram 5 shows the composition of main pollutants' gross discharge into the domestic sewers.

DIAGRAM 5. GROSS DISCHARGE INTO THE DOMESTIC SEWERS, BY MAIN HARMFUL CHEMICAL SUBSTANCES (%)



In 2024, the largest contribution into the domestic sewer discharges was made by dry residue – up to 66%; the contribution of COD accounted for up to 9%; suspended substances – up to 8%; sulphates – up to 8%, chlorides – up to 6%, ammonium ion – about 3%; the contribution of petroleum products, anionic surfactants, phosphates, chromium, copper, nickel, manganese, zinc, total iron, nitrate anion and nitrite anion, in total, accounted for about 1%.

5.3. Radionuclide Discharges

In accordance with article 51 of Federal Law No. 7-FZ dated January 10, 2002, On Environmental Protection, radioactive substance

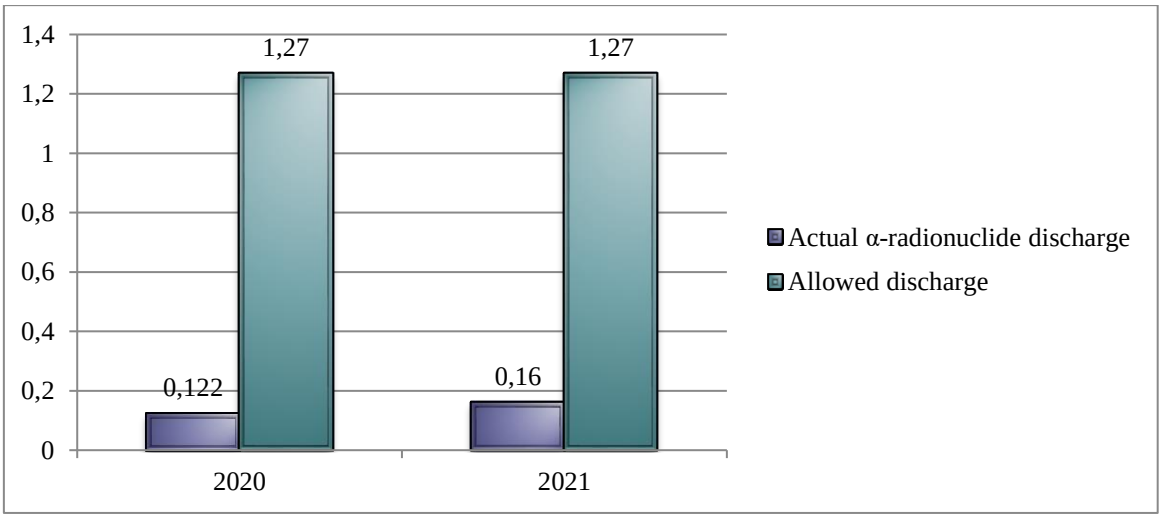
management at MSZ JSC is organised so that release of radioactive waste (RAW) into the environment is excluded.

Starting from 2022, no radioactive substances are discharged in water bodies. The Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor) sent its letter No. 06-02-05/582 dated April 15, 2022 addressed to MSZ JSC stating that there is no need to develop and specify standard rates for the allowable discharges, because there are none.

Radionuclide discharges are monitored by MSZ JSC's Nuclear and Radiation Safety Service in accordance with the annual industrial environmental control (IEC) schedule.

In 2020 – 2021, the amount of radioactive substances discharged in surface water bodies did not exceed and was significantly below the limits specified in Authorisation No. ЦО-115-19/18pc dated November 16, 2018 for Radioactive Substance Discharge in Water Bodies (see Diagram 6).

DIAGRAM 6. EVOLUTION OF ACTUAL RADIONUCLIDE DISCHARGE IN SURFACE WATER BODIES, BQ/YEAR×10^{10}

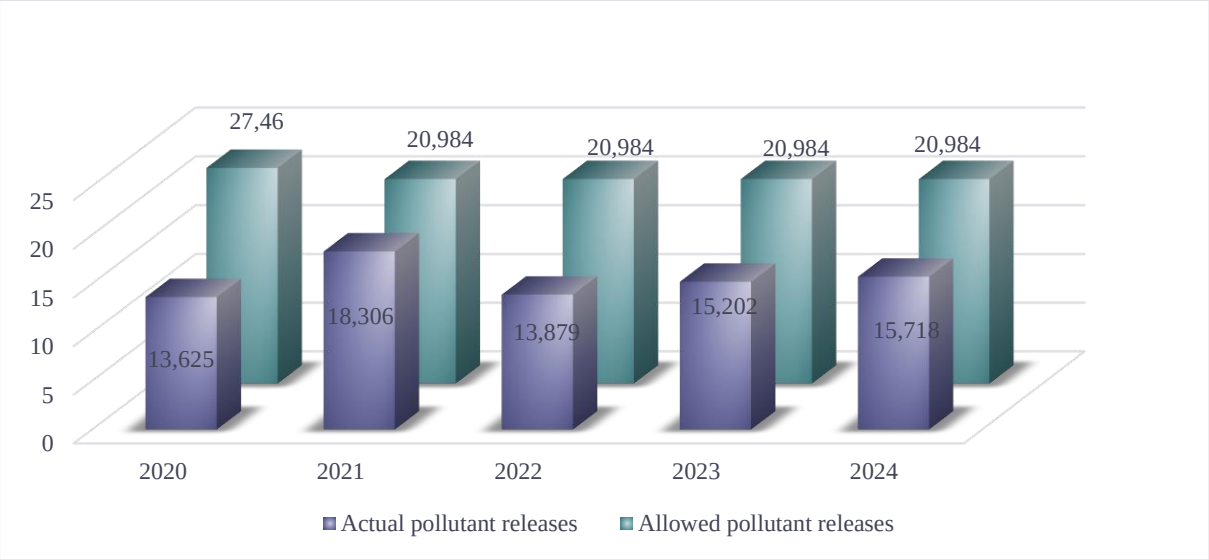


5.4. Harmful Chemical Substance Releases

In 2024, MSZ JSC's chemical pollutant releases into atmospheric air amounted to 15.718 tonnes, whereas the allowed quantity is 20.984 tonnes/year (see Diagram 7).

The authorised gross release amount was reduced because MSZ JSC had optimised its production areas, re-engineered its manufacturing flow-processes as well as upgraded its equipment.

DIAGRAM 7. EVOLUTION OF POLLUTANT RELEASES INTO ATMOSPHERIC AIR (TONNES)



Gross pollutant releases into atmospheric air are lower than the specified standard rates.

The actual release of pollutants within 2020 – 2024 is interrelated with and dependant on the operating time of a number of emitting sources in MSZ JSC's functions, specifically, with/on the manufacturing equipment load.

Table 2 presents the data on pollutant releases in 2024.

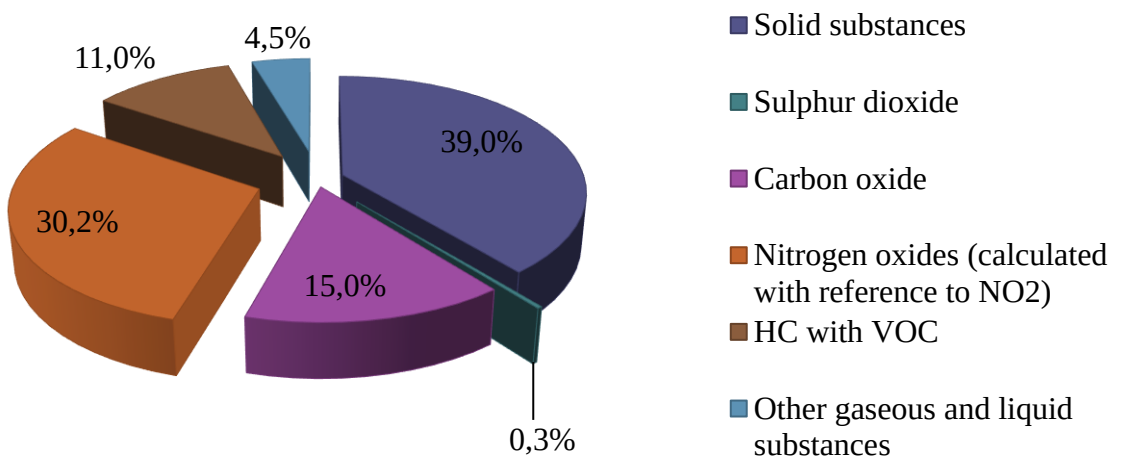
TABLE 2. DATA ON POLLUTANT RELEASES IN 2024

It. No.	Main pollutant	Hazard class	Maximum allowed release, tonnes/year	Actual release in 2024	
				tonnes / year	% of the standard rate
1	2	3	4	5	6
1	**Gaseous and liquid substances (total), out of which:**	-	14.091	9,583	68
nitrogen oxide (calculated with reference to NO_2)		3	6,162	4.747	77
sulphur dioxide		3	0,052	0.047	90
hydrocarbons (HC) with volatile organic compounds (VOC)		-	2,641	1.717	65
carbon oxide		4	4,075	2.365	58
other gaseous and liquid substances		-	1,161	0.707	61

2	**Solid substances (total), out of which:**	-	6.893	6,135	89
1	2	3	4	5	6
abrasive dust		tentative safe exposure level (TSEL)	0.972	0.931	96
iron oxide		3	2.121	1.481	70
black carbon (soot)		3	0.077	0.020	26
other solid substances		-	3.723	3.703	99,5
Total			**20.984**	**15.718**	**75**

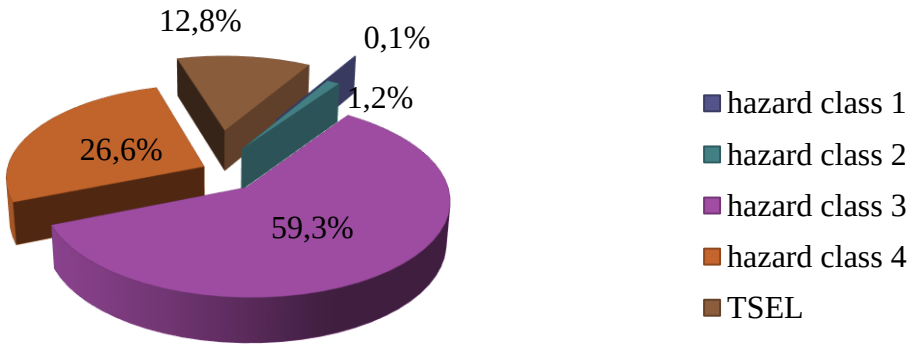
The largest contribution to pollutant releases into the atmosphere by MSZ JSC comes from solid substances and nitrogen oxides (see Diagram 8).

DIAGRAM 8. COMPONENT-WISE COMPOSITION OF ACTUAL RELEASE OF HARMFUL POLLUTANTS INTO ATMOSPHERIC AIR IN 2024



Percentage distribution of actual pollutant releases in 2024 broken down by hazard classes of environmental impact is shown in Diagram 9.

DIAGRAM 9. POLLUTANT RELEASE DISTRIBUTION BY HAZARD CLASSES IN 2024



All the sources emitting a large volume of pollutants at MSZ JSC are equipped with high-efficiency gas treatment plants.

In renovations and upgrades of production works, strong preference is given to the recirculation gas treatment plants that release the purified air into the working area and not into the atmosphere. At the same time, conditions in the working area conform to the specified applicable sanitary and hygienic standard rates.

Annually actions are taken to reduce pollutant releases into atmospheric air.

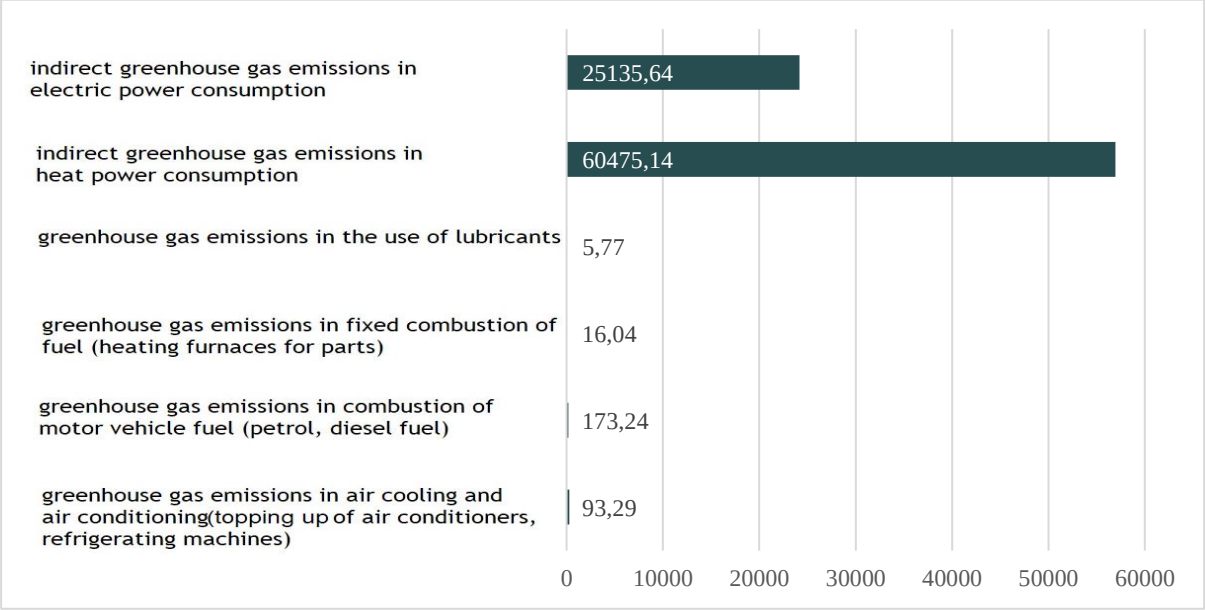
MSZ JSC continually replaces obsolete and worn special-purpose motor vehicles (lift trucks, tractors) as well as optimises their traffic routes by way of actions aimed at reducing their emissions.

MSZ JSC has established monitoring sites equipped with INFRALIGHT devices to provide on-time and good quality servicing of the special-purpose motor vehicles with the purpose to reduce pollutant releases together with exhaust gas emissions from the special-purpose motor vehicles.

5.5. Greenhouse Gas Releases

In accordance with the requirements specified in Federal Law No. 296-FZ dated July 2, 2021, On Limiting Greenhouse Gas Emissions, MSZ JSC has organised accounting and limiting of greenhouse gas emissions (see Diagram 10). Greenhouse gas emissions were calculated as per the Unified Industry-Specific Procedural Guidelines for Calculating Greenhouse Gas Emissions for the State Atomic Energy Corporation Rosatom (SC Rosatom) and Its Organisations released by SC Rosatom's order No. 1/2470-П dated December 21, 2023.

DIAGRAM 10. GREENHOUSE GAS RELEASE CATEGORIES, TONNES CO_2/YEAR



The largest contribution to greenhouse gas emissions into the atmosphere by MSZ JSC comes from refrigerants applied for topping up of air conditioners and process refrigerating machines as well as from petrol and diesel fuel in the use of lift trucks and road machinery.

In 2024, MSZ JSC's direct greenhouse gas emissions stood at 223.28 tonnes CO_2/year. The company's direct greenhouse gas emissions are generated by:

- *combustion of fuel (petrol, diesel fuel) in special-purpose motor vehicles (lift trucks, tractors);*
- *combustion of natural gas in furnaces at the manufacturing site of shop 52;*
- *R-22, R-407C, R410A and R-507 refrigerant releases in operation and topping up of refrigerating machines (in CO2-equivalent).*
- *R-22 refrigerant releases in operation and topping up of air conditioners (in CO_2-equivalent);*

- *solvent (refrigerant 20) releases in analytical measurements.*

Based on Executive Order No. 2979-p dated October 22, 2021, of the Government of the Russian Federation, HCFC-22 and HCFC-20 are not included in the list of greenhouse gases for which the state records of greenhouse gas emissions are kept and the greenhouse gas inventory is maintained.

5.6. Ozone Depleting Substance (ODB) Releases and Utilisation Rates

Ozone depleting substance (ODB) releases at MSZ JSC are generated by:

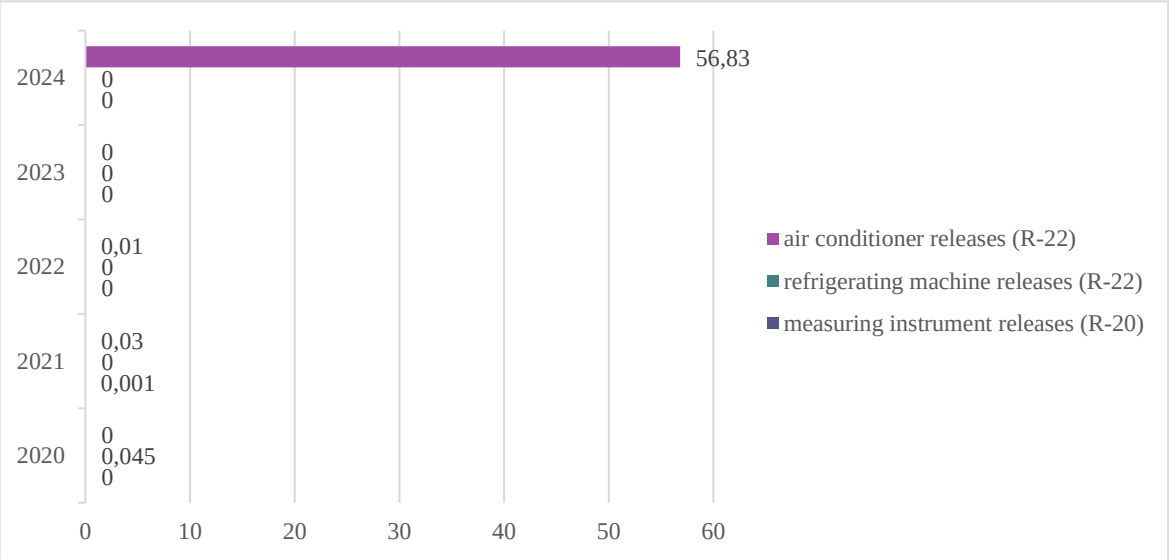
- *leakages of R-22 refrigerant in operation and in operation and topping up of refrigerating machines (in CO2-equivalent).*
- *leakages of R-22 refrigerant in operation and in operation and topping up of air conditioners (in CO_2-equivalent);*
- *evaporation of solvent (refrigerant 20) in analytical measurements (solvent (refrigerant 20) releases in analytical measurements are not subject to government regulation based on Resolution of the Government of the Russian Federation No. 206 dated February 2, 2022*).

The applicable action plan for reducing halocarbon (Freon^{TM}) utilisation in refrigerating machines has been established, based on which refrigerating machines (chillers) were switched to R407C and R410A refrigerants. Obsolete and worn refrigerating machines 31MKT-130 (2 pieces) and 24MKT-280 (2 pieces) operated on refrigerant 22 in shop 48 have been put on production standby to be subsequently decommissioned. In 2022-2024, these refrigerating machines were not in operation, therefore no ozone depleting substance emissions occurred (see Diagram 11).

In 2023, no air conditioners and refrigerating machines were topped up with R-22. Ozone depleting index for R-134a, R-410A and R-407C refrigerants equals zero.

In 2024, increase in R-22 releases was caused by a large number of air condition top-ups.

DIAGRAM 11. EVOLUTION OF OZONE DEPLETING SUBSTANCE RELEASES AT MSZ JSC (TONNES EQUIV. R11/YEAR)



5.7. Radionuclide Releases

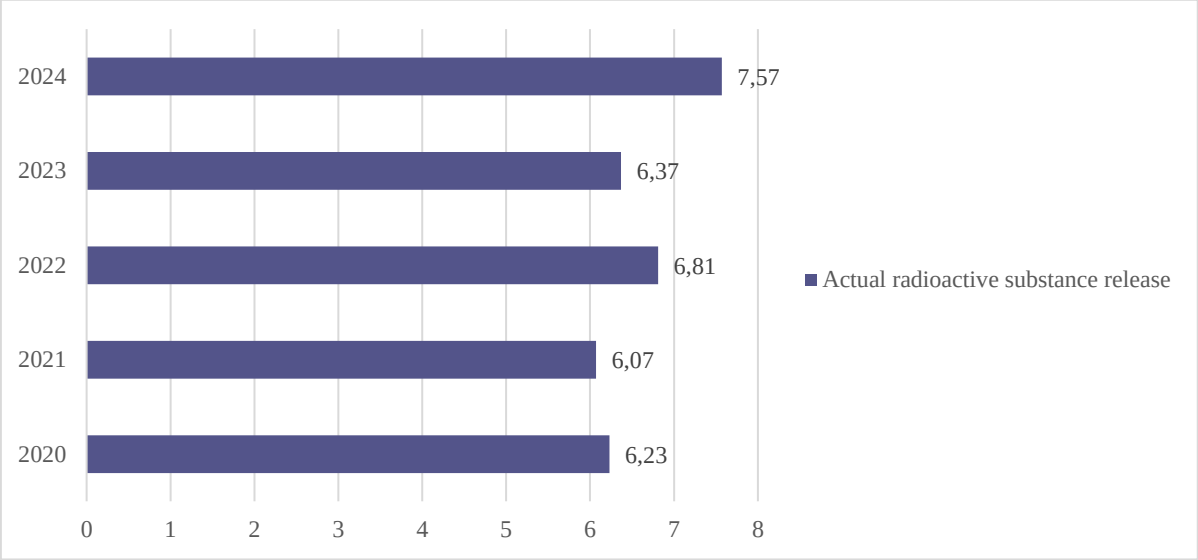
MSZ JSC radioactive substances are released based on Authorisation for Radioactive Substance Release in the Atmosphere No. ГН-ВР-0048 dated April 20, 2024, with the maximum allowed radionuclide release value of $2.21*10^{11}$ Bq/year, issued by the Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor). Until May 1, 2023, this was done based on Authorisation for Radioactive Substance Release in the Atmosphere No. ГН-ВР-0019 dated July 1, 2021, with the maximum allowed radionuclide release value of $3.24*10^{12}$ Bq/year.

Long-term observations demonstrated that at MSZ JSC radionuclide releases are well below the allowed standard rates, and in 2024 they amounted to $7.57*10^{7}$ Bq/year (see Diagram 12).

Decrease in actual radionuclide releases demonstrated in 2020-2021 as well as in 2023, as compared to 2022, was related to the reduction in the runtime of the sources of radioactive substance release into the atmosphere.

Increase in actual radionuclide releases in 2024, as compared to 2023, was related to the increased runtime of the sources of radioactive substance release into the atmosphere.

DIAGRAM 12. EVOLUTION OF RADIONUCLIDE RELEASES IN 2020-2024 (Bq/year×10^7)



Actual radionuclide releases expressed as portions of the allowed releases are given in Table 3.

TABLE 3. ACTUAL RADIONUCLIDE RELEASE EXPRESSED AS PORTIONS OF THE ALLOWED RELEASE, IN 2020-2024

Radionuclide	Actual radionuclide release expressed as portions of the allowed release				
	2020	2021	2022	2023	2024
Sum total of α-radionuclides	0.00006	0.00002	0.00002	0.00029	0.00034

Radionuclide concentration in the air in MSZ JSC's location area, according to the data provided by radiation monitoring, is below the specified sanitary and hygiene standard rates, which indicates that there is an allowable radiation impact on human and environment.

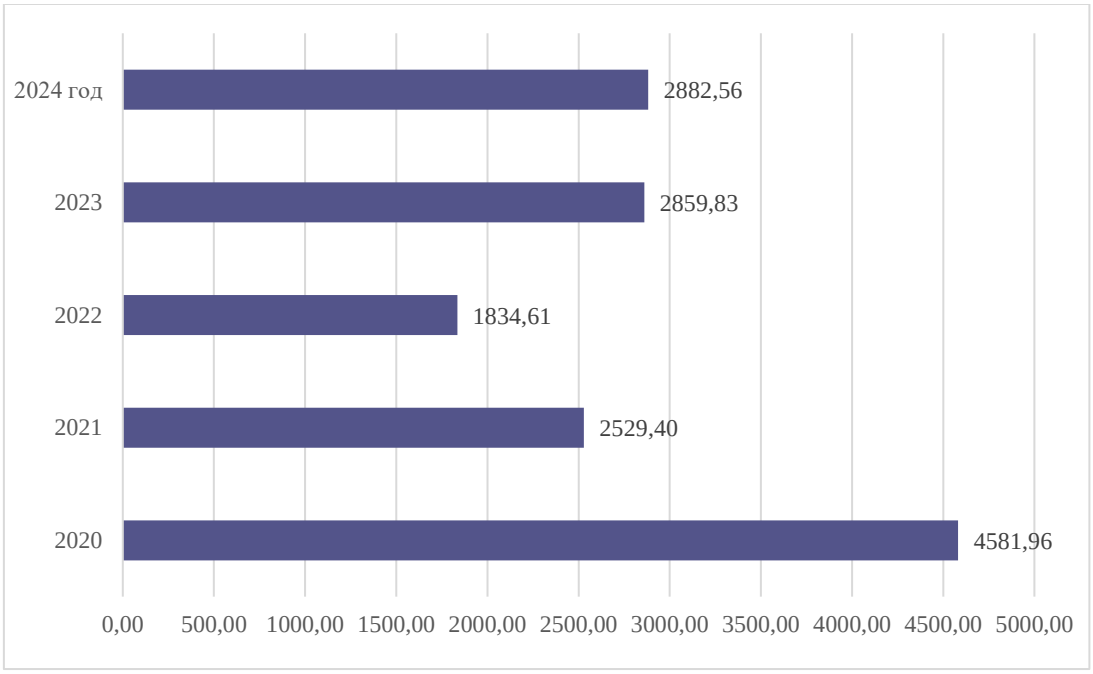
All ventilation systems (both process as well as general) in MSZ JSC's shops, where radioactive substances are handled, are equipped with state-of-the-art high-efficiency filters providing 99.9 – 99.99 % purification – with the purpose to assure environmental safety and exclude radionuclide releases into the atmosphere.

5.8. Production and Consumer Waste Management

There is a functioning production and consumer waste management system in place at MSZ JSC. There is an established procedure for initial collection, accumulation and removal of waste. In order to improve the waste management system, MSZ JSC implements shop-wise accounting of generated waste and monitors waste market with the purpose to conclude agreements for waste disposal with its maximum availability for using or processing.

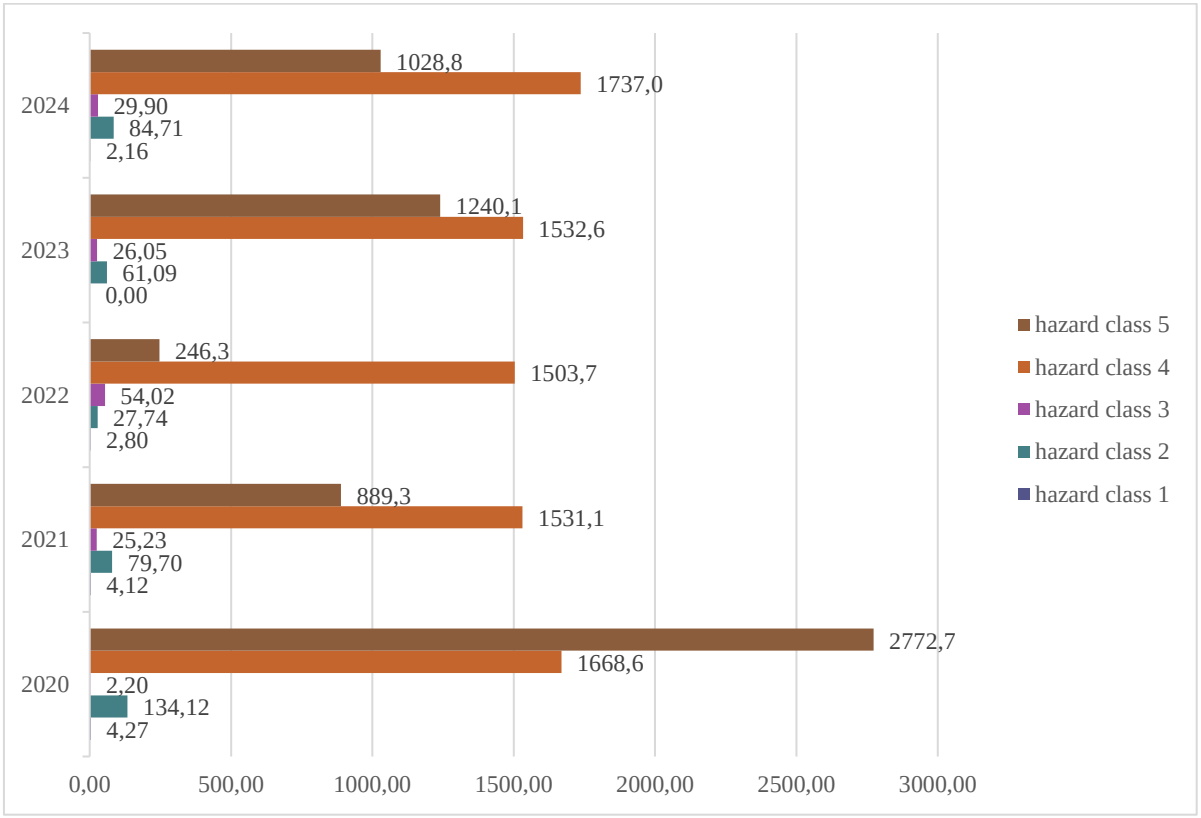
Waste generated in 2024 amounted to 2882.562 tonnes (see Diagram 13), which remained at the previous year's level (2859.827 tonnes). The decrease in waste in 2021-2023, as compared to 2020, was attributed to the completion of the renovation of the surface run-off collection system in 2020 and the reduction in construction waste generated in renovation and construction activities. The increase in waste generation in 2023-2024, as compared to 2022, was attributed to the start of expanding the tube-rolling production as well as scrapping old railway wagons.

DIAGRAM 13. CHANGES IN THE AMOUNT OF WASTE GENERATED AT MSZ JSC (TONNES)



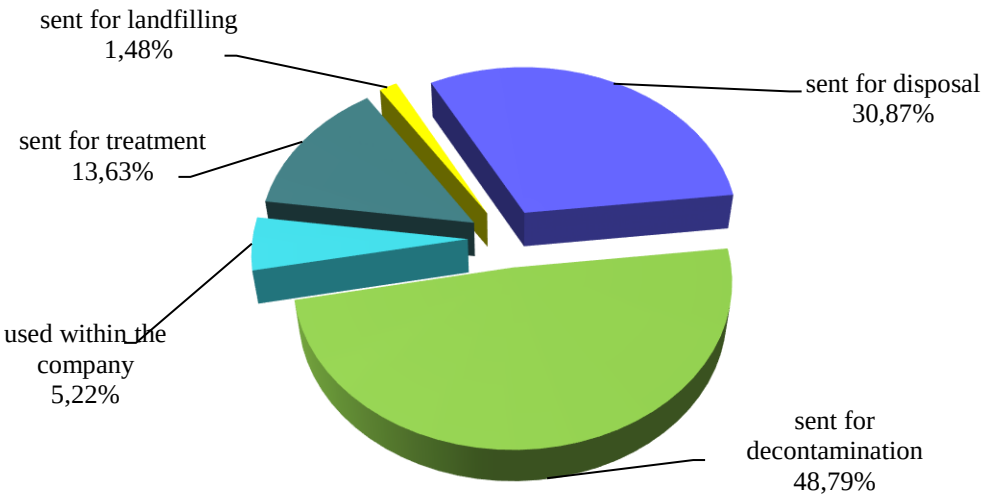
In 2024, liquid waste accounted for around 46.5%, solid waste – 53.5%. The majority of waste (96%) – is the waste pertaining to hazard classes 4 and 5, i.e. the least hazardous (see Diagram 14).

DIAGRAM 14. WASTE DISTRIBUTION BY HAZARD CLASSES (TONNES)



As applied to waste, MSZ JSC steers either the course of maximum availability for using it within the company (class 5 waste) or for sending it to external organisations for disposal. If waste disposal is impossible to carry out, this waste is sent for decontamination or landfilling (see Diagram 15).

DIAGRAM 15. PERCENT RATIO OF DISPOSED, DECONTAMINATED AND LANDFILLED WASTE IN 2024



MSZ JSC's Purchasing Department continually carries out activities related to market monitoring and concluding agreements with specialised enterprises for waste disposal and decontamination, at minimal expenditures.

5.9. Radioactive Waste Generation

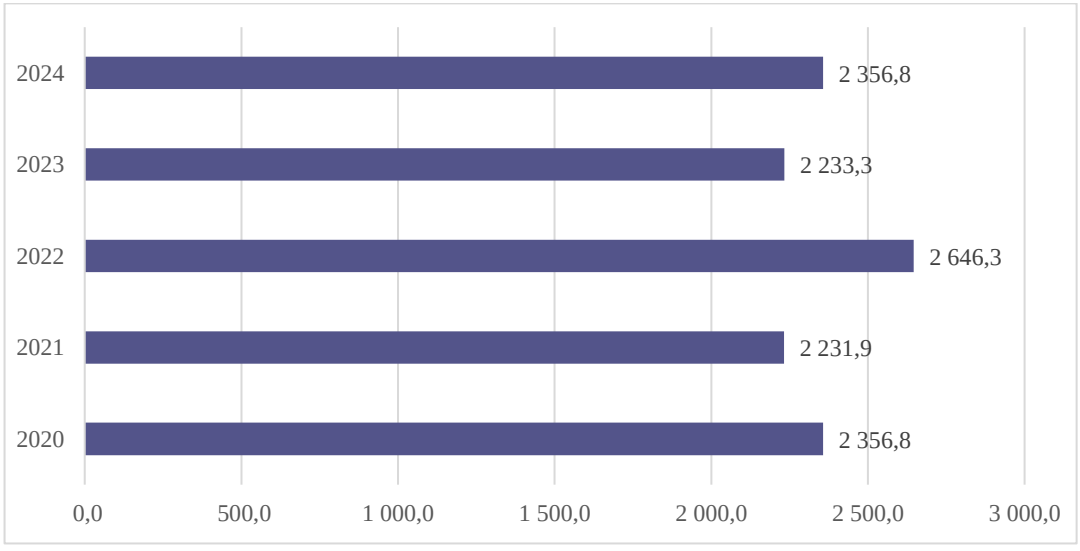
There is a system for radioactive source and radioactive waste (RAW) management in place at MSZ JSC; all the activities within the scope of RAW management are carried out based on the applicable licence issued by the Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor).

Within the scope of RAW management activities, MSZ JSC collects, processes, packs and provides temporary storage of the RAW generated in manufacturing activities; transports RAW within MSZ JSC's site by special-purpose motor vehicles as well as special-purpose pipelines; stores RAW in long-term storage facilities; provides solid RAW storage facility preservation; carries out accounting and control of RAW; monitors radionuclide content in RAW at various RAW management stages; carries out radiation monitoring of RAW discharges and releases.

Disposable solid RAW is temporary stored in separate rooms/premises or at specially designated sites, equipped in accordance with the requirements specified for rooms/premises used in class II operations. Subsequently, RAW is sent to specialised companies FSUE RADON (the Federal State Unitary Enterprise – United Ecological, Scientific and Research Centre of Decontamination of Radioactive Waste and Environmental Protection, ECOMET-S JSC and FSUE PA Mayak (the Federal State Unitary Enterprise – Production Association Mayak).

The waste generated at MSZ JSC falls under the category of very low level radioactive waste (VLLW). In 2024, all in all, 2356.82 m^3 of RAW of $3.51*10^{10}$ Bq (see Diagram 16) overall activity were generated. Out of which 2277.82 m^3 were placed in the long-term storage facility – building 294A, whereas 79 m^3 were sent to specialised RAW management organisations.

DIAGRAM 16. MSZ JSC'S RAW GENERATION BEHAVIOUR IN 2020-2024 (M^3)



5.10. Energy Consumption

In 2024, 77 017 thousand kW*h of electric power were received from the utility company (in 2023, this parameter stood at 75 007 thousand kW*h).

The increase in energy consumption in 2024, expressed in physical terms, as compared to 2023 values, amounted to 2 010 thousand kW*h (2.6 %) and was related to the increase in product output, but also construction and commissioning of the new production works as well as reconstruction operations.

REDUCTION IN ENERGY CONSUMPTION, IN COMPARABLE CONDITIONS TO THE BASELINE YEAR (2020), AMOUNTED TO 25.18%.

Reduction in energy consumption in 2024 has been achieved through:

- *carrying out a major overhaul of lighting networks, complete with the replacement of lamps for energy-saving ones;*
- *major overhaul of furnaces, complete with rebricking;*
- *shops carrying out engineering and administrative activities to provide utility savings;*
- *replacing equipment for energy-efficient equipment;*
- *conservation of unused space and equipment.*

6. Moscow Region's Total Volume-wise Breakdown of MSZ JSC's Releases, Discharges and Wastes. Radiation Situation Overview of the Region

This subsection is composed based on the consolidated data on atmosphere and surface water contamination levels prepared by the Federal State Budgetary Institution Central Department of Hydrometeorology and Environmental Monitoring (FSBI Central DHEM) – the institution specially authorised by RosHydromet to perform roles pertaining to hydrometeorology and environmental monitoring and reported in monthly reviews On Environmental Pollution Levels and Radiation Situation within the Territory of Moscow and the Moscow Region for 2024.

Atmospheric air pollution surveillance in Elektrostal is conducted at two stationary sites of the national service for surveying the state of atmospheric air, where the following is measured: concentrations of suspended substances, sulphur dioxide, carbon oxide, nitrogen dioxide and oxide, chlorine, formaldehyde, benzo[a]pyrene and heavy metals. Such sites are grouped into the following categories: "city background" and "industrial".

In 2024, atmospheric air contamination level in the City District of Elektrostal was assessed as low. As a result of occasional atmospheric air surveys, the maximum allowable single concentration (1.1 MAC) of nitrogen dioxide was recorded in May and October at the fixed point located in Poselkovaya Street, building 4A. Year-average and maximum concentrations of remaining substances subject to be determined did not exceed the MAC.

Main contamination sources for large watercourses in the Moscow Region cum Moscow are still the inadequately purified domestic and production effluents as well as agricultural effluents introduced directly into the rivers and their feeders. Nitrogen and phosphorus compounds, suspended and organic substances, petroleum products, anionic surfactants, heavy metals are the characteristic pollutants.

In 2024, nitrite nitrogen content in the Moscow Region cum Moscow, on average, stood at 4 MAC; ammonium nitrogen – 2.2 MAC; nitrate nitrogen and phosphates – within the MAC limits. Ammonium nitrogen, nitrite nitrogen and phosphate contents decreased, as compared to 2023 level.

In 2024, contamination of the Moscow Region cum Moscow water bodies by heavy metals was insubstantial. Averaged concentrations of hexavalent chromium, nickel and lead were within the MAC limits; copper – 1.7 MAC and zinc – 3 MAC.

Assessment of water quality in watercourses and water reservoirs by specific combinatorial water contamination index performed in the Moscow Region cum Moscow in 2024 demonstrated that qualitative composition of surface waters is represented by the following water quality classes: slightly contaminated, polluted, very polluted, dirty, very dirty and extremely dirty.

In 2024, there were no cases of high or extremely high water pollution recorded in water bodies – MSZ JSC's wastewater receivers (the Khodtsa river).

In 2024, the radiation environment in the Moscow Region cum Moscow was calm, with no observed values higher than the allowed limits. The year-average value of the rate of the ambient equivalent of γ-radiation dose on the territory of the Moscow Region was within the fluctuations of natural γ-radiation background.

7. Areas Contaminated in MSZ JSC's Production Activities

ENVIRONMENTAL IMPACTS OF MSZ JSC'S DISCHARGES, RELEASES, PRODUCTION AND CONSUMER WASTES ARE LIMITED TO MSZ JSC's INDUSTRIAL SITE AND THEY STAY WITHIN THE LIMITS OF THE SPECIFIED STANDARD RATES FOR DISCHARGES, RELEASES AND WASTE GENERATION LIMITS.

Within MSZ JSC's location area there are contaminated areas. Disrupted pieces of land are linked with the company's activities in the 40ies-50ies of the previous century (the period of the country's nuclear industry establishment) when this plant carried out operations within the scope of Atomic Project for building the country's "nuclear shield".

At MSZ JSC, FSBI Gidrospetsgeologia conducted a package of field and laboratory hydrogeological investigations under the following topic: "Survey of Radioactive Contamination Area Impacts on Sub-Soil Waters and Environment in the Northern Part of MSZ PJSC's Industrial Site". Based on the results of these activities a system of monitoring wells to control possible underground water contamination in the northern part of MSZ JSC's industrial site, consisting of 10 wells, has been organised.

In 2024, in accordance with NP-067-16 Basic Regulations for Accounting and Control of Radioactive Substances and Radioactive Waste in the Organisation, MSZ JSC took inventory of the areas contaminated by radiation within the company's industrial site to verify their conformity to the previous inspections. In 2024, within the schedule of On-Site Subsoil Condition Monitoring (OSCM) as per MSZ PJSC's On-Site Subsoil Condition Monitoring Programme (No. 18/56-26дсп/2620 dated March 19, 2019) measurements were performed, which results revealed no changes towards worsening of subsoil conditions. In 2024, radiation monitoring showed that radiation situation in MSZ JSC's location area is characterised as stable.

8. Biodiversity Conservation Efforts

MSZ JSC has not developed or participated in any biodiversity conservation projects. However, for biodiversity conservation purposes, MSZ JSC evaluates the impact of its activities on the environment, biota compartments included, within the scope of the company's economic activity planning. MSZ JSC develops engineering documentation for capital construction projects in accordance with the requirements specified in Resolution of the Government of the Russian Federation No. 87 dated February 16, 2008, On Composition of

Engineering Documentation Sections and Requirements to Contents Thereof, consistent with the requirements for flora and fauna conservation, conservation of animal habitats and their migration routes. Annual examinations of fence integrity and their repairs are carried out to prevent wild animals from entering industrial sites.

9. Funding Allocated for the Measures Aimed at Achieving Environmental Performance Targets

In order to minimise adverse impact caused by MSZ JSC's economic activities, funding is allocated annually for the measures aimed at environmental protection. Total environmental protection expenditure in 2024 amounted to 277.3 million roubles (see Table 4).

TABLE 4. TOTAL ENVIRONMENTAL PROTECTION-RELATED EXPENDITURE

It. No.	Expenditure	Actual value for the year, thousand roubles
1	Operating (operational) costs	118 556
2	Payments for environment conservation services	158 191
3	Environmental impact fee	576
	Environmental protection-related expenditure, in total	**277 323**

The operating (operational) costs related to environmental protection comprise the costs for maintenance and operation of MSZ JSC's fixed assets intended for environmental conservation purposes, the costs for radiation safety-related instrumental and laboratory measurements as well as salary costs for the company's environmental specialists.

The payments for environment conservation services comprise the costs for the outsourced services provided to ensure operability of the equipment included in the environment conservation list, the costs for measurements and studies of physical effects as well as the costs for advanced training of environmental protection-related specialists.

In 2024, within the structure of payments for adverse environmental impact, the fee for pollutant discharges into water bodies accounted for 93%, production waste disposal fee, excluding solid household waste disposal fee, accounted for – 6%, the fee for pollutant releases into atmospheric air from stationary sources (excluding the fee for releasing the pollutants generated in flaring and (or) dispersion of associated petroleum gas) accounted for – 1%.

In 2024, there were no investments in the fixed assets allocated for environmental protection and sustainable use of natural resources as well as no overhauling costs of environmental protection-related fixed assets.

10. Environmental Policy Implementation

In 2024, within the implementation scope of MSZ JSC's environmental policy and according to MSZ JSC's Environmental Policy Implementation Plan No. 18/76-09/263 dated October 20, 2023, the applicable administrative and science popularisation efforts were continued: preparing the data for obtaining the sustainable development rating, environmental reporting, maintaining the process of improving the corporate environmental management system, participating in research-to-practice seminars, holding voluntary clean-up days and organising training.

11. Environmental & Social Activities, Public Outreach Activities

For preserving the environment, it is necessary to join all the parties' efforts – efforts of public and local authorities as well as efforts of the population. MSZ JSC is one of the township-forming enterprises, which imposes the particular responsibility towards the residents of the City District of Elektrostal.

WORK IN COOPERATION AND OPENLY WITH THE RELATED LOCAL, REGIONAL AND FEDERAL PUBLIC AUTHORITIES IS ONE OF THE PRINCIPLES OF MSZ JSC'S POLICY ON QUALITY, ENVIRONMENT, ENERGY EFFICIENCY, OCCUPATIONAL HEALTH & SAFETY AND SUSTAINABLE DEVELOPMENT.

MSZ JSC takes an active part in social life of the City District of Elektrostal, the Moscow Region.

An equally important process is the implementation of MSZ JSC's environmental ideas is the interaction with environmental NGOs, scientific and social institutions as well as the population.

To maintain the high environmental safety level of production and to reduce potential adverse environmental impact thereof as much as possible, to work out and implement scientifically justifiable solutions for improving the environment and for sustainable use of natural resources MSZ JSC for decades has been working hand-in-glove with the Biophysics Institute named after A.I. Burnasyan, the Federal State Budgetary Institution Gidrospetsgeologia (FSBI Gidrospetsgeologia), the Federal State Unitary Enterprise – the All-Russian Scientific and Research Institute of Groundwater Hydrology and Engineering Geology (FSUE VSEGINGEO), the State Unitary Enterprise – Leading Scientific and Research Institute of Chemical Technology, the Federal State Budgetary Institution – the Institute of Mineralogy, Geochemistry and Crystal Chemistry of Rare Elements (FSBI IMGRE), the Scientific and Research Institute of Environmental Issues (NIIPE), the V.I. Vernadsky Nongovernmental Ecological Foundation, the Federal State Budgetary Healthcare Institution (FSBHI) Hygiene and Epidemiology Centre No. 21 of the Federal Medical-Biological Agency of Russia, the State Scientific Centre of the Russian Federation - Leipunsky Institute of Physics and Power Engineering, Joint-Stock Company (JSC SSC RF IPPE), etc.

Each year MSZ JSC trains its employees on topics related to environmental conservation. In 2024, company employees received advance training on environmental safety and environmental management (under the following programmes: ISO 14001:2015/GOST R ISO 14001-2016 Environmental Management; Safety Requirements for Hydraulic Engineering Structures, Radiological Emergency Response Operations, etc.) in education institutions.

MSZ JSC employees took part in the industry-specific research and development seminar on Industrial Safety and Safety of SC Rosatom's Hydraulic Engineering Structures; 2024 Environmental Culture. Peace and Conciliation international project; FSUE FEO's webinar for SC Rosatom on Hazard Class I-II Waste Management and Work in the Federal State Information System for Accounting and Control of Hazard Class I and II Waste Management (FGIS OPVK); webinar of the Russian Water Supply and Wastewater Disposal Association on Biological Treatment Intensification for Domestic and Production Wastewater Using Biomaterials; the industry-specific research-to-practice seminar on Radiation Safety and Environmental Protection in Nuclear Industry. MSZ JSC employees also visited EcwaTech 2024 International Exhibition of Technologies and Equipment for Municipal and Industrial Water Treatment, Water Supply, Sewage, Wastewater Treatment, Engineering Systems and Pumping Equipment as well as WasteTeck 2024 International Exhibition for Municipal, Industrial, Construction and Agricultural Waste Management.

In 2024, MSZ JSC held an internal competition among company functions for the best planting project to enhance green spaces within the company's premises.

The company's management as well as managers of all company functions, members of MSZ JSC' youth organisation, representatives of the trade union, ordinary MSZ JSC's employees and employees of subsidiary companies joined their efforts within the scope of the All-Russian Environmental Voluntary Clean-up Day to clean the city territories.

In May, 2024, MSZ JSC held an environmental campaign within Elektrostal limits: fish stocking of Yubileiniy pond, where more than 100 kg of baby grass carps were let out. Fish stocking was carried out in compliance with all the specified requirements: the fish underwent preventive treatment in advance, it was brought to the pond in a special-purpose vehicle equipped for transporting live fish using oxygen and protection against temperature changes. Grass carp is a herbivorous fish, it actively consumes water-logged weeds, thus cleaning water bodies.

Within the scope of industry-specific Furry Atom project, MSZ JSC's employees once again took part in a charity event aimed at providing assistance to the animal shelter in Noginsk. In November, campaigns were held: within the International Recycling Day and for wastepaper collection - within the All-Russian BumBattle [Paper Battle] Project.

MSZ JSC ACTIVELY PARTICIPATES IN ALL SOCIAL PROGRAMMES, ENVIRONMENTAL INCLUDED. REPRESENTATIVES OF REGULATORY AUTHORITIES, RUSSIAN COLLEAGUES, FOREIGN PARTNERS, STUDENTS, JOURNALISTS, BUSINESS COMMUNITY MEMBERS AND PUBLIC OFFICERS VISIT THE COMPANY ON A REGULAR BASIS.

In 2024, to spread awareness among all the interested parties/persons, all the issues related to MSZ JSC's environmental conservation activities and the company's environmental impact received wide coverage in feature radio-broadcasted programmes as well as TV spots (On MSZ JSC's Voluntary Clean-up Day; Elektrostal-Style Fish Stocking (interview with kids), Information on Separate Collection of Waste, etc.), but also in the topic-related information graphics and daily aired via the distribution broadcasting system (information screens) (Voluntary Clean-up Day, Elektrostal-Style Fish Stocking + Ecotrail, Grass Carp, Separate Collection of Waste, Tutorial Workshop).

17 environmental posts have been put on MSZ JSC's official website, published in Energia newspaper and in the social media accounts (VKontakte, Telegram, Rosatom Life). 220 tours to MSZ JSC's Information Centre have been organised (about 5500 visitors).

One of the principles on which MSZ JSC's activities are based is transparency and availability of environmental information as well as constructive interactions with interested parties, that is why MSZ JSC's Policy on Quality, Environment, Energy Efficiency, Occupational Health & Safety and Sustainable Development as well as the Environmental Safety Report are public documents posted on the company's website as well as made available in MSZ JSC's Information Centre. This information is used when participating in exhibitions and in outreach activities.

12. Contact Information

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