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Corporate Environmental Management Standard in “Samruk-Energy” JSC Group of Companies

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1. Purpose and scope of application

1.1. This Corporate Environmental Management Standard at “Samruk-Energy” JSC Group of Companies (hereinafter - the Standard) determines “Samruk-Energy” JSC and its SA’s approach to environmental management in order to reduce and, where possible, prevent the adverse environmental impact that occurs during operations and the supply of products by the Company. This Standard includes the following environmental aspects:

- in water resources management;
- in waste management;
- in biodiversity;
- in closure and restoration of facilities in compliance with the Republic of Kazakhstan law.

1.2. This Standard applies to all structural units of “Samruk-Energy” JSC group of companies.

1.3. SA may develop their own internal documents, which should not contradict the requirements, obligations and principles of this “Samruk-Energy” JSC Standard in environmental protection management and should not be reduced in comparison with this Standard.

2. Terms and abbreviations

Term / abbreviation	Definition
Biodiversity	the diversity of living organisms from all sources, including but not limited to terrestrial, marine and other aquatic ecosystems, and environmental complexes of which they are part; this concept includes diversity within a species, between species and diversity of ecosystems
Water footprint	this is the total volume of water withdrawn from natural sources and used for the production of goods and services, as well as to meet other needs related to production, considering the context: the availability of water resources in the region of operation, the number of consumers from one water intake source, the risks associated with water use, etc
Environmental impact	any negative or positive change in the environment, wholly or partly resulting from the Company’s operations, its products and services
Temporary storage of waste	storage of production and consumption wastes by persons, as a result of whose activities they are generated, in places of temporary storage and for the periods specified by the project documentation (but should not exceed six months), for their subsequent transfer to organizations engaged in waste disposal, processing, and disposal operations that cannot be recycled or disposed of
Waste rocks	rocks extracted from the subsoil with solid minerals and remaining after separation from the extracted solid minerals, because these rocks contain no useful components or has low concentration of useful elements
WPP	Wind power plant
“Samruk-Energy” JSC Group of companies	“Samruk-Energy” JSC and corporate entities where “Samruk-Energy” JSC directly holds 100% of their voting shares (equity stake) on the right of ownership or trust management.
SDPP	State district power plant
HPP	Hydropower plant
SA	Subsidiaries and affiliates
Pollutants	any physical, chemical, biological or radiological substance in the air, soil or

	water that has an adverse effect, as well as any chemical substance with a concentration above established background levels or not naturally originated in the environment
Dumping of wastes	storage of waste in places specially established for their safe storage for an unlimited period
C and PA	corrective and preventive actions
Liquidation	a set of measures, including reclamation made to bring production facilities and land plots into a condition that ensures the safety of the environment, life and health of the population
Waste treatment	reduction or elimination of hazardous waste properties by mechanical, physio-chemical or biological treatment
Company	joint name of Samruk-Energy joint-stock company and its SA
I category facilities	Facilities causing significant negative impact on the environment
EIA	Environmental impact assessment
SPNA	specially protected natural areas
Landfill operator	An individual or a corporate entity, which legally owns a landfill
Risk assessment	identification of immediate and potential hazard to the environment and human health, determination of the hazard level and its possible consequences, including analysis of options for preventing and eliminating the hazard at the site of the subsoil plot or under certain conditions, based on acceptability factors, public perception of risk, socio-economic impact, benefits and technical feasibility. Risk evaluation is essential part of risk management
Hazardous Waste Passport	a document that includes a standard description of waste generation process at the place of their origin, their quantitative and qualitative indicators, rules for managing them, methods for their control, types of harmful effects of these wastes on the environment, human health and (or) property of persons, information about waste producers, owners.
Waste dump	a specially equipped place for the permanent disposal of waste without the intention of their removal that meets environmental, construction and sanitary and epidemiological requirements.
UNDP	United Nations Development Program
Reclamation	Range of works aimed at restoring disturbed lands for a specific purpose, including adjacent land plots that have completely or partially lost their value because of an adverse impact of disturbed lands and improvement of environmental conditions
REC	Regional energy company
Stakeholders	individuals and corporate entities whose interests are affected by the Company operations
Wastewater	water used for industrial or domestic needs and received additional impurities (pollutants) that changed their original composition or physical properties. Waters flowing from the territory of populated areas and industrial enterprises at the time of precipitation, watering streets or after that, waters formed during the extraction of minerals are also considered waste
EMS	Environmental management system
CHP	Combined heat and power plant
Waste disposal	The process of managing waste materials, including their treatment, recycling, or proper disposal. It involves activities related to the utilization

	of waste at various stages of the technological cycle, as well as facilitating the reuse or recycling of discarded products.
Escrow account	a current or savings account opened by a client in the name of a third party with restriction of the right of this person to make debit transactions on a bank account until it fulfills conditions outlined by the customer.

3. Water resources management in the Company

3.1. General provisions and responsibility.

3.1.1. The water resource management standard establishes:

- rules for handling water resources as an integral component of the ecosystem, a resource of common use, and an object of fundamental human rights;
- responsibility for the consumption of water resources and the effort to minimize the negative environmental impact on them and the environment as a whole.

3.1.2. The Company’s role and responsibility in water use translates into making informed corporate decisions in line with principles of sustainability and maintaining the Company's market value without compromising the environment.

3.1.3. The purpose of this Standard in water resources protection is to mitigate the impact, including:

- reduction in fresh water consumption;
- increase in the share of repeatedly and reused water;
- reducing the volume of wastewater discharge and concentrations of harmful substances in wastewater, including drainage (mine) water additionally generated by Bogatyr Komir LLP;
- minimizing risks related to water use;
- improving the quality of discharged wastewater.

3.1.4. Water resources management addresses the following key tasks:

- determination of the key principles of water resources management, intended for mandatory use across the Company;
- ensuring continuous improvement of water resources management;
- ensuring a unified process of water resources management at the Company, as opposed to the established practice of inconsistent management by different departments with regard to the use of water for various needs of the company (drinking, production, household and other needs);
- ensuring the involvement of stakeholders in the process of water resources management in the Company.

3.1.5. Implementation of this Standard will allow:

- applying a single approach to water resources management;
- increasing the Company’ stakeholder engagement in terms of the use of water resources and the impact on water sources;
- managing possible risks, their implications and identify opportunities for improvement;
- ensuring the stability of production processes amid the growing issue of lack of fresh water for industrial and drinking purposes;
- increasing investment prospects, image of the Company and trust at the international level.

3.2. Obligations and principles.

3.2.1. The Company assumes obligations to develop and apply an effective and transparent corporate water resources management system and cooperate with stakeholders and local communities in the regions where the Company operates in order to save water resources and provide safety.

3.2.2. Basic principles for decision-making in water resources management, which are affected by the Company operations are:

- 1) responsible management of water resources including sustainable water balance;
- 2) compliance with the Republic of Kazakhstan (hereinafter – the RK) law requirements and international agreements regarding water resources, as well as the dedication to maintaining international standards and best practices while considering the views of all stakeholders within the region of operation;
- 3) assessment and accounting of the initial sources of water withdrawal, regardless of whether water is taken directly or purchased through intermediaries;
- 4) development and adaptation of the plans and actions of the Company for smart management of water resources;
- 5) minimizing the use of drinking water for industrial purposes to zero;
- 6) maintain the organizational capacity necessary for the successful implementation of the Standard, including providing the Company's employees with the required time and resources for implementation of the standard;
- 7) coordinate with government agencies the implementation of plans and policies in order to study best practices for the continuous improvement of their water management system;
- 8) conduct an inventory of water intake and wastewater metering devices at water intake sources and wastewater receivers every year for the presence of devices, their good condition, timely verification and sealing by an authorized body;
- 9) refusal to conduct the Company's operations in the regions that experience water resources shortage;
- 10) Ensuring stakeholders' access to materials and information regarding the water resource management system within the Company.

3.2.3. Information about the water resource management system, water conservation action plans, and current indicators related to water resources is published on the official websites of “Samruk-Energy” JSC and its subsidiaries, as well as in the sustainability report.

3.3. The Company's commitment to water conservation.

3.3.1. The Company using this Standard must:

- ensure the safe operation and rational consumption of water resources in accordance with the requirements of legal regulations as well as requirements of leading international standards for sustainable development integrated into the Company's operations;
- develop programs (action plans) and roadmaps for activities in water resource management, including the assessment of technologies and competencies used;
- implement and execute activities in the field of water resource management;
- allocate and train personnel for the implementation of activities in water resource management;
- manage risks associated with water resource management (including identification, assessment, selection of response methods, development and implementation of a risk avoidance and/or mitigation action plan, and ongoing monitoring);
- manage risks associated with water resources management (including identification, evaluation and prioritization, choice of response method, development and implementation of an action plan and monitoring);
- develop, plan a budget for the implementation of actions aimed at managing risks associated with the management of water resources;
- provide reports on the implementation of programs (action plans) and the effectiveness of implementing initiatives aimed at mitigating risks in water management;
- liaise with the state supervisory bodies of the Republic of Kazakhstan that control over the management of water resources.

3.4. Risk assessment.

3.4.1. Risk management in relation to water use should contain a detailed analysis of the risk and elaboration of actions on reducing its negative consequences, allowing making economic decisions that are actually implemented at an acceptable level of environmental risk, in order to balance the benefits gained from the implementation of business decisions and possible losses.

3.4.2. The risk management procedure in water resources, including the identification and assessment of risks, the development of an action plan for risk management in relation to water use at “Samruk-Energy” JSC group is performed in accordance with internal regulatory documents (IRD) that govern risk management issues.

3.4.3. Monitoring the implementation of the developed activities at managing risks of water use includes qualitative and quantitative measurements of the implementation of actions in order to obtain information on the status and effectiveness of risk management.

3.4.4. Control over the implementation of water use risk management measures across “Samruk-Energy” JSC group should be performed through:

- the analysis of production monitoring data and production environmental control; - - analysis of compliance with the requirements of the current environmental and sanitary and epidemiological legislation of the RK;
- analysis of identified inconsistencies in the course of industrial environmental control and monitoring of compliance with environmental and sanitary and epidemiological legislation of the RK;
- analysis of the results of the internal audit of the EMS;
- analysis of data from other stakeholders.

3.4.5. For smart use of water resources, a plan for the efficient use of water resources (hereinafter - the Plan) should be developed, which will include actions on possible reduction of using fresh water, reducing the discharge of purified water by increasing the reuse or recycling of water resources, and decreasing water losses during transportation. This Plan may also comprise actions aimed at improving the quality of water before use and / or before discharge into wastewater receivers. The plan is developed and updated based on data obtained from tracking of water footprint.

3.4.6. The plan should include:

- 1) activities aimed at reducing water intake from natural sources;
- 2) activities at wastewater quality improvement and their reuse;
- 3) activities for possible cooperation with stakeholders in water resources management;
- 4) deadlines for the implementation of activities;
- 5) the budget for the implementation of the Plan’s action points with the calculation of economic efficiency from the implementation of the entire Plan or the activities included in it, separately.

3.5. Wastewater discharges.

3.5.1. All subsidiaries of “Samruk-Energy” JSC that have discharge standards specified in the agreed draft of the Permissible Discharge Standards, as well as discharge and water use limits established by requirements set out in the permits obtained, strictly comply with the discharge standards into the environment.

3.5.2. Permissible standards for the content of pollutants in wastewater and their volume are established by law. Before discharge, wastewater must undergo appropriate treatment to approved sanitary and hygienic standards.

3.5.3. For avoiding damage to the environment, regular analytical monitoring of the processes of changing the water and temperature regimes of groundwater through a network of observation wells, repair of equipment and pipelines of the hydraulic ash removal system should be provided.

4. Waste Management at “Samruk-Energy” JSC Group

4.1. General provisions and responsibility.

4.1.1. The standard outlines:

- the regulations and criteria governing the management of production and consumption waste within the Company, with the aim of preventing any adverse impact on the environment;
- emphasizes the responsibility for waste management throughout their entire lifecycle and the commitment to minimize their negative environmental effects on both the waste itself and the overall environment.

4.1.2. The Company's role and responsibility in waste management involve making informed corporate decisions aligned with the principles of sustainable development, while also ensuring the preservation of the Company's market value without causing harm to the environment.

4.1.3. Waste management requirements must be taken into consideration during various activities, including:

- during the production of electricity and heat, in maintenance processes;
- coal mining, auxiliary production processes;
- procurement of raw materials, goods and other inventory items;
- during transportation and storage of raw materials, products, and other goods;
- during loading and unloading operations;
- during laboratory research;
- during interaction with suppliers and contractors involved in works and services within the territory of production departments;
- during the signing of contracts and agreements for dismantling, installation, and repair works.

4.1.4. At all levels within the Company, it is essential to establish responsibility for the functioning and analysis of the production and consumption waste management system.

4.2. Obligations and principles of building the waste management system.

4.2.1. The processes of creation and further management of waste are considered in this Standard as an integral part of all main and auxiliary technological processes of production.

4.2.2. When handling waste, all structural units of the Company must comply with all requirements of the current environmental and sanitary and epidemiological law of the RK. In particular:

- conduct the collection, storage, and disposal of production and consumption wastes on the territory of all structural units of Company, adhering to established norms and regulations;
- identify all types of generated production and consumption wastes and do an inventory of organized waste accumulation sites and waste disposal facilities;
- duly develop and approve the standards for production waste generation and limits for the placement of generated production waste in their own storage facilities;
- perform classification of production and consumption waste;
- plan and implement the most preferable measures for the management of production and consumption waste, including reducing their volume of generation and disposal, as well as reducing (eliminating) their negative impact on the environment;
- analyze and evaluate the effectiveness of activities for the management of production and consumption waste, develop and implement the necessary corrective actions;
- control over all stages of managing production and consumption waste;
- conduct training and advanced training of employees involved in the processes of handling production and consumption waste.

4.3. Identification of waste generated in the Company.

4.3.1. The moment of waste generation at SA is considered the time of writing off (transferring) the remains of raw materials, materials, other products that have lost their consumer properties, with the execution of the corresponding write-off certificate by an accounting department, except for overburden rocks at “Bogatyr Komir” LLP.

4.3.2. The process of identification of wastes includes - determining the type of waste, establishing data on its component composition and other characteristics.

4.3.3. Production and consumption wastes should be identified on the basis of inventory data of waste sources, with a survey of their storage and disposal sites, which should be performed annually, on their own and / or with the involvement of third-party organizations licensed to conduct this type of activity. Places for temporary storage and placement of production and consumption waste must comply with the sanitary and epidemiological requirements for the collection, use, neutralization, transportation, storage and disposal of production and consumption waste.

4.3.4. When identifying the sources of waste generation and locations of waste accumulation, it is crucial to consider the primary and ancillary industries, technological processes, individual production and auxiliary installations, individual equipment units, and other relevant factors. The inventory of waste generation sources and accumulation locations should encompass the entire infrastructure, including both authorized and unauthorized placements.

4.3.5. The classification of waste types into environmental hazard classes should be carried out in compliance with the existing environmental protection legislation of the Republic of Kazakhstan. In cases where the Company is unable to fully or partially determine the nature of the resulting production and consumption wastes, it is necessary to engage licensed specialized contractors to assist in this task.

4.3.6. A hazardous waste passport must be prepared for each type of generated production and consumption waste, following the approved form(s) specified in the current legislation of the Republic of Kazakhstan.

4.3.7. Once the production and consumption wastes have been identified, the Company must independently or in collaboration with licensed third-party organizations specialized in this field, develop a Waste Management Program. This program should include information regarding the volume and composition of the generated and disposed wastes, methods for temporary storage and/or disposal, calculation of waste generation standards, measures for handling them, and other relevant details.

4.4. Planning activities for the management of production and consumption waste.

4.4.1. When formulating and planning measures in the field of waste management, the following objectives should be considered:

- Implementing existing resource-saving and low-waste technologies, equipment, and materials to reduce the volume and hazardousness of generated production and consumption waste;
- Enhancing waste control and monitoring methods, including the adoption of progressive techniques, to minimize the environmental impact of generated waste, including monitoring the effects of waste accumulation sites and disposal facilities on the environment;
- Increasing the utilization of generated waste by optimizing end-of-life product handling and exploring efficient methods for waste utilization;
- Mitigating the environmental impact of waste disposal facilities by adhering to environmental and sanitary regulations, organizing new facilities, and improving existing waste accumulation sites and disposal facilities;
- Enhancing the overall efficiency of waste management through the development and implementation of optimal management procedures, reinforcing accountability, involving all employees of the Company in management processes, and enhancing their level of competence.

4.5. Establishment and justification of waste management methods on the territory of SA.

4.5.1. All SA of “Samruk-Energy” JSC SA must duly determine the best ways to manage all identified waste.

4.5.2. The list of possible methods of waste management at SA includes:

- waste recycling;
- use of waste as raw materials and materials in other technological processes in the production department itself;
- transfer of waste for disposal to third-party specialized organizations;
- sale of waste to third-party consumers for use;
- accumulation of waste at own waste disposal sites (landfills) prior to their use or disposal.

4.5.3. The criteria for establishing appropriate waste management methods are:

- requirements of laws and regulations related to the issues of waste management;
- the maximum possible reduction of the negative impact of waste at all stages of its handling;
- maximizing the use of waste within the business processes or operations of an organization;
- availability of specialized organizations properly located in relation to SA for the reception, use and disposal of waste;
- the method of waste management and consumption that is economically viable for SA.

4.5.4. The established method of handling production and consumption waste must be documented, the transfer of waste to third-party specialized organizations for disposal is confirmed by relevant documents (contracts, invoices, transfer certificates, etc.).

4.6. Management of storage sites and waste disposal facilities on the territory of production departments of SA.

4.6.1. The location, construction, arrangement, maintenance and operation of storage sites and waste disposal facilities must comply with the sanitary and epidemiological requirements for the collection, use, application, neutralization, transportation, storage and disposal of production and consumption waste.

4.6.2. For each identified type of waste, the method of its accumulation must be determined, based on the data on the assessment of its hazard class and toxicity, state of aggregation, solubility, volatility, hazard properties and other parameters that may have an impact on the environment. The temporary storage facilities for waste must be equipped in compliance with the sanitary and epidemiological legislation of the Republic of Kazakhstan. Waste disposal facilities must be equipped and operated in accordance with the design documentation specific to these facilities, which has received a positive assessment from the state environmental review.

4.6.3. Each structural unit of the Company bears the responsibility for organizing, arranging, and maintaining waste accumulation sites and disposal facilities in compliance with regulatory requirements that ensure their environmental, sanitary, and epidemiological safety.

4.7. Methods of storage of production and consumption waste.

4.7.1. The segregation of waste should be conducted in adherence to the current sanitary-epidemiological and environmental legislation, considering their type and hazard classification (determined based on their properties and the presence of toxic substances: hazardous or non-hazardous). Waste segregation should occur at the point of generation (based on the workshop principle) or centrally, in accordance with sanitary, epidemiological, hygienic, and fire regulations and standards. Sites where temporary storage of waste with fire hazardous properties takes place must be equipped with primary fire extinguishing equipment. Depending on the composition and properties of the stored production and consumption waste, storage facilities should provide personal protective equipment and a first aid kit. It is strictly prohibited to store substances and materials with different fire extinguishing agents together on one

site.

4.8. Waste Sorting, Labeling, and Transportation Management.

4.8.1. Waste sorting and labeling should be conducted taking into consideration their types, physicochemical properties (composition, physical state, volatility, solubility), hazard characteristics, resource characteristics, and other relevant factors. The choice of containers (such as bins, boxes, drums, and other suitable vessels) for waste storage, movement within the production area, and transportation to designated locations must be based on the specific characteristics of the waste. The type of container used for collecting and storing each type of waste, as well as the storage conditions ensuring environmental and sanitary-epidemiological safety, must comply with the prevailing sanitary-epidemiological and environmental legislation of the Republic of Kazakhstan.

4.8.2. The transportation of waste for disposal should be carried out either by the organization itself or by contracted organizations, under a mutually agreed upon contract. This transportation process should be accompanied by the necessary accompanying documents, such as a waybill certified with the carrier's seal, granting the transport vehicle and its occupants the right to enter the premises of both the sender and recipient. Additionally, a copy of the hazardous waste passport should be included as part of the documentation.

4.8.3. Accountability for compliance with the established requirements for waste sorting and labeling should be implemented at all levels within the organization. Responsible individuals should ensure adherence to the waste sorting and labeling requirements. Furthermore, specialized organizations are responsible for monitoring compliance with safety requirements during waste transportation, and these responsibilities should be explicitly defined in the contractual agreement.

4.9. Provision of a waste management system on the territory of SA.

4.9.1. Training and up-skilling of staff involved in waste management.

4.9.1.1. A necessary level of professional training for employees involved in waste management should be arranged in order to meet environmental, sanitary and epidemiological requirements. The personnel responsible for staff development should assess the training needs, category, and composition of employees who require training and professional development in the field of waste management and disposal. When determining the training needs and implementing training and professional development processes, the following categories of employees should be considered: those directly involved in waste management and disposal activities, as well as employees who require information regarding waste handling.

4.9.1.2 Third-party organizations involved in the training of employees must necessarily have licenses for this type of activity.

4.9.2. Cooperation in waste management.

4.9.2.1. In waste management, interaction should be established including interaction with external stakeholders, interaction between different levels of management and employees involved in the implementation of waste management roles, as well as with other management systems in the production departments of SA. The established interactions should provide processes for receiving, processing and transfer of information on all aspects of waste management.

4.9.2.2. External and internal interactions at SA should be regulated by organizational, administrative and local regulations, regulations on structural units, job descriptions of employees and other regulations.

4.10. Control and monitoring in the waste management system.

4.10.1. Accounting for production and consumption waste be made in the register of production and consumption waste in the approved form, based on actual measurements in mass. All values of the amount of waste are considered by the mass of waste in tons and are rounded to the nearest three decimal places (to the nearest kilogram). Disused fluorescent lamps containing mercury are shown by the mass of the product. In each filled line of the register, the columns indicate the values of the amount of waste or, in their absence, zero.

4.10.2. The operation of the waste management system should ensure the completeness, continuity, and accuracy of accounting for the generation, collection, transportation, disposal, or placement of waste during activities. Additionally, ongoing control and/or monitoring should be conducted to ensure that waste limits and storage periods are not exceeded, and that waste storage sites and disposal facilities comply with the requirements of sanitary-epidemiological and environmental legislation of the Republic of Kazakhstan. The ultimate outcome of production control and/or monitoring in the field of waste management should be the development and implementation of effective corrective measures to address identified discrepancies in the waste management system and waste handling activities.

4.10.3. Production control and/or monitoring in the field of waste management should include:

- regular visual inspection of the places of generation, collection, sorting, use, loading, unloading, transportation, accumulation and disposal of waste and assessment of the compliance of waste management procedures with legal requirements for waste management;
- regular control of the presence of documented information regulating the procedure and rules for waste management at structural units whose activities are related to waste management;
- regular monitoring of the availability and maintenance of registered data on the operational movement of waste and documents confirming the acceptance, transfer, use and disposal of waste, etc.;
- conduct quarterly environmental monitoring at waste storage sites and disposal facilities.

4.10.4. Control and/or monitoring of the environmental conditions at waste storage sites and disposal facilities can be carried out by either internal resources or external organizations that possess the appropriate license for such activities. In case of any non-compliance (deviations) with the established norms and requirements of environmental and sanitary-epidemiological legislation of the Republic of Kazakhstan, corrective measures are developed and implemented to address the identified issues.

5. Biodiversity at “Samruk-Energy” JSC Group of Companies

5.1. General provisions and management approach.

5.1.1. The standard establishes a framework for managing the diversity of natural biosystems at a level that ensures their sustainable existence and non-depleting use in the regions where the Company operates.

5.1.2. Biodiversity management by the Company entails reducing the burden and direct impact on wild vegetation and wildlife in the vicinity of HPPs, WPPs and SPPs owned by the Company.

5.1.3. To minimize negative impacts on avifauna, ichthyofauna, other freshwater ecosystems, as well as flora and fauna in the coastal areas surrounding the Company's HPPs, WPPs, and SPPs, environmental impact assessment (EIA) must be conducted on a continuous basis.

5.1.4. EIA for biodiversity should be based on studying the initial state of biodiversity and assessing potential negative impacts during the operational phase of facilities and early stages of project implementation by the Company.

5.1.5. During the EIA process, it is necessary to confirm that both direct and indirect impacts on biodiversity have been reduced and that impacts that could lead to irreparable loss of biodiversity have been avoided or prevented.

5.1.6. EIA must be carried out in strict compliance with the requirements of the current environmental legislation of the Republic of Kazakhstan, considering the determination of parameters for effective natural compensation measures (i.e., compensation measures) based on the magnitude of negative consequences and the type of affected biodiversity. It should also consider the implementation of measures such as the preservation of affected biodiversity components, protection of key areas considered biodiversity priorities in the region, and other measures to reduce factors that pose threats to biodiversity.

5.1.7. The assessment of the potential environmental impact for any proposed economic or other activities involves the following:

- Gathering accurate and reliable information (background data) regarding the types, sizes, and distribution of flora and fauna (such as marine mammals, fish, birds, and algae) in the designated activity area, including the presence of valuable and protected species, as well as any nearby specially protected nature territories;
- Taking into account the acquired information when choosing suitable locations for various production and auxiliary facilities, considering alternative options for implementing the planned activities;
- Identifying possible effects that the intended economic or other activities may have on biodiversity preservation, taking into consideration alternative sites for placing production and auxiliary facilities and implementing the proposed activities;
- Evaluating the significance of the impacts on biodiversity preservation caused by the proposed economic or other activities, including the likelihood of risks, their extent, nature, scale, and the areas they may affect, while also forecasting the environmental, social, and economic consequences associated with them;
- Determining measures aimed at reducing, alleviating, or preventing adverse impacts, which may include planning preventive actions and promptly addressing potential emergencies, implementing measures to safeguard and compensate for aquatic biological resources, and assessing the effectiveness and feasibility of these measures.

5.1.8. Subsidiaries of “Samruk-Energy” JSC that have an impact on biodiversity are required to develop a Monitoring Plan specifically for assessing the effects of their operations on flora and fauna (referred to as the Monitoring Plan). This plan should outline the specific biodiversity targets to be achieved or maintained within defined time periods. The Monitoring Plan of subsidiaries should be adjusted based on the status of biodiversity and the effectiveness of conservation measures implemented.

5.1.9. The main focus areas of the Standard regarding biodiversity conservation include:

- Species and populations requiring special protection and their habitats;
- Specially protected natural areas;
- Areas with high-value biological diversity (Critical Habitats), including;
- Habitats of critical importance for critically endangered and/or endangered species;
- Habitats of critical importance for endemic and/or restricted range species;
- Habitats supporting globally significant concentrations of migratory species and/or gregarious species;
- Ecosystems facing serious threats and/or possessing unique characteristics, as well as territories associated with major evolutionary processes;
- Vulnerable ecosystems such as littoral areas, salt marshes, river mouths, etc.;
- Invasive species.

5.1.10. The management approach should involve:

- Wind farm projects should incorporate measures to minimize the impact of wind turbines on wildlife. This includes reducing nighttime lighting to the use of only marker lights, as excessive lighting can disrupt the biorhythms of living organisms;
- Reconstruction of power lines with insulated wires should be carried out to minimize cases of bird mortality due to electric shock on overhead lines;
- Fish protection devices should be installed at all hydropower plants (HPPs) to minimize fish

mortality at hydro turbines. Additionally, spotlights should illuminate the water surface near the turbine conduits at night as a fish protection measure, and idle spillways should be equipped with branches to facilitate the free movement of fish;

- Visual field observations should be conducted to monitor the impact on flora and fauna.

5.2. The Company obligations.

5.2.1. The Company obliges to:

- strive avoiding conduct of works in habitats of valuable and specially protected species of plants and animals, in especially sensitive ecological zones, during periods of plant vegetation, reproduction and migration of wild animals, or minimize the impact when work cannot be avoided in certain areas and in certain seasons;
- seek to prevent the creation of permanent and compelling obstacles to the migration of wild animals in the form of linear structures;
- implement all possible measures to prevent or minimize the Company's impact on wildlife and control over their implementation;
- be involved with working group to discuss biodiversity conservation issues and issues related to reducing the negative effects of energy infrastructure facilities on the environment;
- cooperate with UNDP experts in Kazakhstan on matters regarding implementation of biodiversity conservation programs.

5.3. Planning activities for the conservation of biodiversity.

5.3.1. The construction of the Company's facilities and complexes must adhere to the requirements of national legislation, as confirmed by construction permits. Throughout the construction process, it is essential to strictly follow approved design solutions, including those related to the preservation of biodiversity.

5.3.2. The operation of the Company's facilities is contingent upon the establishment and adherence to environmental impact norms. This requires obtaining and regularly updating the necessary permits as mandated by the legislation of the Republic of Kazakhstan. These permits include authorization for discharges and emissions of pollutants, approval of waste generation and disposal limits, and relevant licenses for subsoil use and special activities when applicable. The operation of facilities must align with the approved project documentation to ensure compliance.

5.3.3. Planning activities for the conservation of biodiversity in the Company should include:

- identification of industrial hazards and assessment of risks, environmental aspects affecting biodiversity, for the compensation of which it is necessary to develop and implement appropriate measures;
- identification of legislative and other requirements in biodiversity conservation subject to mandatory implementation;
- determination of the priorities of “Samruk-Energy” JSC Group of companies’ activities for the conservation of biodiversity and on the basis of this, set goals and objectives of planning and program documents
- development of the Plan for monitoring the impact of operations on the flora and fauna in the SA.

5.3.4. The procedure for managing risks and environmental aspects that affect biodiversity should include the following steps:

- identification of industrial hazards, description and assessment of risks, environmental aspects affecting biodiversity, and identification of significant ones;
- determination of ways to respond to significant risks, environmental aspects and development of additional measures to reduce them;

- implementation of measures to manage risks and environmental aspects, including measures to respond to incidents (occurred risks);
- monitoring of risks and environmental aspects;
- reassessment of risks and environmental aspects, considering the occurred risks and the results of actions aimed at managing risks and environmental aspects.

5.3.5. In the process of hazard identification and risk assessment, environmental aspects are determined by situations, events that are sources / causes of incidents that can affect the diversity of natural biosystems, environmental impacts, including flora and fauna, the frequency and consequences of such events / situations are assessed.

5.3.6. Biodiversity Conservation Action Plans should be developed on the basis of the results of hazard identification and risk assessment and considering the environmental aspects of the Company.

5.3.7. Determining the priorities of the Company's activities for the conservation of biodiversity and shaping goals and objectives on this basis is implemented considering the initial data obtained in the course of:

- identification of legislative and other requirements in biodiversity conservation applicable to the Company's operations;
- assessment of risks, environmental aspects influencing biodiversity;
- verification of compliance with legislative and corporate requirements in biodiversity;
- analysis of the competitive environment (threats and opportunities) and best practices (benchmarking) in biodiversity conservation;
- analysis of effectiveness in biodiversity conservation aspect.

5.3.8. Monitoring and evaluation of the effectiveness of the Biodiversity Conservation Program should be based on reporting data, monitoring results, inspections, audits, and other relevant information received by the Company.

5.3.9. Based on the analysis of the performance of the Biodiversity Conservation Program, decisions should be made regarding the need for adjustments and resource provision for biodiversity conservation measures.

5.4. Implementation, Operation, and Evaluation of Company Activities for Biodiversity Conservation.

5.4.1. To fulfill the Company's goals and commitments for biodiversity conservation, specific procedures must be established for the development, adjustment, and implementation of measures, including:

- Defining the organizational structure and assigning responsibilities and authorities to all employees involved in setting and achieving biodiversity conservation goals;
- Ensuring the competence, training, and awareness of the Company's employees, as well as individuals working on its behalf (contractors, partners, etc.), regarding the Company's Policy, risks, environmental aspects related to biodiversity conservation, and relevant legislative and other requirements;
- Establishing internal and external communication channels for sharing information and engaging in discussions on biodiversity conservation matters;
- Maintaining and managing up-to-date documentation necessary to achieve biodiversity conservation objectives;
- Integrating biodiversity conservation requirements into production activities, processes, and operations in accordance with applicable legislation and other relevant regulations;
- Organizing measures to prevent and respond to emergency situations, taking into consideration the aspect of biodiversity conservation.

5.4.2. The evaluation of the effectiveness of the biodiversity management system should include an assessment of the extent to which achieved results in biodiversity conservation align with the Policy's

obligations, established goals and objectives, as well as legislative and other requirements.

5.4.3. Based on the analysis of the effectiveness of the biodiversity management system, decisions and actions should be taken to address potential changes in the environmental policy, goals, objectives, and other components of the biodiversity management system to enhance its performance.

5.5. Monitoring and evaluation of compliance. Corrective and preventive measures.

5.5.1. The main goal of environmental monitoring of biodiversity is to control certain species of flora and fauna, identified as indicators of the sustainable state of ecosystems in the area of influence of operated technological facilities, by collecting measurement data, integrated processing and analysis, distribution of monitoring results among users and timely delivery of monitoring information to responsible officials for compliance assessment and management decision-making.

5.5.2. Monitoring and conformity assessment may have:

- preventive nature - monitoring and assessment of compliance, carried out in order to prevent inconsistencies, risks in biodiversity conservation;
- responsive nature - monitoring and conformity assessment performed during the investigation of incidents affecting the conservation of biodiversity (occurred risks), including: accidents, incidents, emergencies.

5.5.3. Monitoring and assessment of compliance with legislative and other requirements on biodiversity conservation issues applicable to the Company's operations are divided into two types: external and internal. The external assessment of conformity involves the evaluation of compliance by external stakeholders, such as organizations interested in the Company's business (investors, consumers, suppliers, accredited laboratories, etc.). Specialized independent contracting organizations, such as external auditors, may be engaged to perform these assessments on behalf of the second party. Internal assessments of conformity, depending on the reasons and objectives, can be either planned (based on annually developed programs/plans) or ad-hoc (targeted) in nature, and can be conducted by the Company's employees themselves.

5.5.4. In order to prevent incidents affecting the conservation of biodiversity (occurred risks), including: accidents, incidents, emergencies, as well as to reduce the damage caused by them at “Samruk-Energy” JSC group of companies, procedures for identifying inconsistencies, development and implementation of corrective and preventive actions (CaPA).

5.5.5. Inconsistencies are identified following the results of:

- incidents affecting the biodiversity conservation (occurred risks);
- identification of industrial hazards and risk assessment, identification of environmental aspects;
- assessment of compliance with legislative and other requirements;
- comments and suggestions of all stakeholders, including the Company employees;
- external audits and inspections by regulatory authorities;
- monitoring;
- analysis of the effectiveness of achieving biodiversity conservation goals.

5.5.6. The process of formulating corrective and preventive actions must involve the following steps:

- conducting an analysis of the underlying reasons for noncompliance;
- devising and implementing CaPA designed to address these reasons and uphold an efficient biodiversity conservation process;
- establishing documentation to record the outcomes of implemented CaPA;
- evaluating the effectiveness of the executed CaPA.

6. Management of the process of liquidation (closure) and restoration of facilities within the Company

6.1. General provisions, goal and responsibility.

6.1.1. This Standard of the Company on implementing the process of closing and reclamation of affected territories of the Company was developed in order to determine the main works for the liquidation of capital structures and technological equipment, the restoration, recycling and (or) disposal of waste, the reclamation of disturbed lands of SA and determining the amount of financial security for the fulfillment of SA operator’s obligations on eliminating the consequences of the operation of category I facilities and solid minerals extraction sites (hereinafter - financial security).

6.1.2. After the termination of operation of SA facilities that have a negative impact on the environment, the Company is obliged to ensure the elimination of the consequences of operation in accordance with the requirements of the RK law.

6.1.3. As part of the liquidation of the consequences of the operation of facilities that have a negative impact on the environment, works that bring land plots into a condition that ensures the safety of life and (or) health of people, environmental protection and suitable for their further use for their intended purpose should be performed, in accordance with the procedure for post-utilization of SA construction facilities, liquidation of the consequences of subsoil use by SA, liquidation and conservation of hydrogeological wells, closure of landfills and other places for storage and disposal of waste, including radioactive waste, activities on safe termination of SA activities and other works specified in laws of the Republic of Kazakhstan.

6.1.4. “Samruk-Energy” JSC aims to establish collaboration and engagement with residents, local authorities, and public organizations in the regions where it operates during the initial stages of facility liquidation. This is achieved through various forms of interaction such as thematic conferences, individual meetings, press conferences, telephone conversations, public hearings, surveys, and perception surveys.

6.1.5. The key components of the liquidation process should encompass the following tasks:

- if there are capital structures (buildings, structures, complexes) at the facility of category I - a set of works for their dismantling and demolition;
- if there is technological equipment at category I facility - its dismantling and removal (removal) from the relevant industrial site;
- reclamation of disturbed lands;
- recovery, recycling and (or) disposal of waste;
- monitoring the quality of surface and ground waters, atmospheric air, soil and vegetation conditions;
- performance of liquidation works provided for by the conditions of the environmental permit.

6.1.6. In order to determine the scope of proposed liquidation works, it is required to develop a preliminary plan for liquidating the consequences of the operation of category I facilities;

6.1.7. The liquidation plan is developed in a free form and contains a descriptive part, as well as a calculation of the estimated costs of liquidation.

6.1.8. The process of creating a liquidation plan, its content requirements, execution, and related activities for preparing a liquidation plan, as well as the restoration of affected areas to a self-sustaining ecosystem compatible with a favorable environment, are defined in the existing environmental legislation of the Republic of Kazakhstan.

6.1.9. Subsidiaries of “Samruk-Energy” JSC, classified as Category I facilities, are obligated to provide financial support to the authorized environmental protection body in favor of the Republic of Kazakhstan upon the development of the liquidation plan.

6.1.10. The financial support should encompass all necessary work and activities to completely mitigate the consequences of the operation of Category I facilities of Subsidiaries of “Samruk-Energy” JSC, including any future requirements that may arise.

6.1.11. The amount of financial security should be determined based on the estimated cost of the liquidation process and is subject to recalculation every seven years.

6.1.12. Financial security, as stipulated by the Standard, is not required for:

1) Category I facilities for which the subsoil user has provided security to fulfill obligations related to mitigating the consequences of subsoil use or a liquidation fund has been established in accordance with the legislation of the Republic of Kazakhstan on subsoil and subsoil use;

2) Landfills for which the facility operator has established a dedicated liquidation fund.

6.1.13. Heads of Subsidiaries are responsible for:

– Mitigating the consequences of the operation of Subsidiaries' facilities that have a negative impact on the environment;

– Providing financial security to fulfill their obligations related to mitigating the consequences of the operation of Subsidiaries' facilities that have a negative impact on the environment.

6.2. Identification of key activities for the liquidation process

6.2.1. The physical volumes for the dismantling and demolition of capital structures (buildings, structures, complexes) should be established based on the actual state of the existing buildings, structures and complexes at the industrial site at the time of drawing up the liquidation plan.

6.2.2. Determination of the physical volumes and the planned cost of dismantling (demolition) is carried out in relation to each structure (building, structure and complex) located on the industrial site of a category I subsidiary, despite the existence of plans for their re-profiling to another functional purpose. The costs of dismantling (demolition) of a structure are excluded from the calculation only if there is a project for the re-profiling of such a structure, approved in accordance with the legislation of the Republic of Kazakhstan.

6.2.3. If there are capital structures owned by the operator of category I SA (including access railways, surface (above) or underground (underwater) pipelines, cables) located outside the industrial site, but directly involved in the operation of category I facility and not having for other purposes, the costs of their dismantling and demolition as part of the liquidation are also subject to inclusion in the calculation.

6.2.4. The physical volumes for the dismantling of process equipment should be established based on the actual state of the process equipment at the industrial site at the time of drawing up the plan for the elimination of process equipment. Determination of the physical volumes and the planned cost of dismantling is carried out in relation to all technological equipment located on the industrial site of a category I facility.

6.2.5. If the dismantled process equipment contains persistent organic pollutants, ozone-depleting, radioactive, toxic, ecotoxic and hazardous chemicals, the works and costs necessary for their safe extraction, storage, decontamination, neutralization, recovery and (or) removal should be additionally determined.

6.2.6. If there is technological equipment located outside the industrial site, but directly involved in the operation of a Category I facility and having no other purpose, the costs of their dismantling as part of the liquidation must also be included in the calculation.

6.2.7. For the purpose of removal of technological equipment, the costs of its transportation (including the costs of transportation, loading, unloading) outside the industrial site to the places of its further use are additionally determined, or if such technological equipment has passed into the category of waste, to places where such wastes will be subject to recovery and (or) disposal operations in accordance with the requirements of the environmental legislation of the Republic of Kazakhstan.

6.2.8. The calculation should also include the costs of developing projects for the post-utilization of the facility, reclamation of disturbed lands and their examination in accordance with the requirements of the RK law.

6.3. Restoration, recycling and (or) disposal of waste and reclamation of disturbed lands after

the liquidation of facilities.

6.3.1. Physical volumes and costs of recovery, recycling and (or) disposal of waste shall be determined in relation to the estimated residual amount of waste within the industrial site during the decommissioning of a category I facility, as well as the expected waste that will be generated during the liquidation process (waste from dismantling and demolition of buildings, dismantling of technological equipment, reclamation of disturbed lands, performance of work).

6.3.2. Types of waste management operations are determined in accordance with the waste management program, which is part of the environmental permit.

6.3.3. Reclamation of disturbed lands is recognized as a range of works aimed at restoring disturbed lands for a specific purpose, including adjacent land plots that have completely or partially lost their value as a result of the negative impact of disturbed lands, as well as works aimed at improving environmental conditions.

6.3.4. Reclamation must be carried out considering the requirements of the land and environmental legislation of the RK.

6.3.5. Determination of physical volumes and costs for reclamation should be carried out in relation to carrying out survey work in accordance with the RK land legislation, development of a reclamation project, implementation of the technical and biological stage of reclamation (for lands intended for further use for agricultural, forestry purposes or for any purpose requiring restoration of soil fertility).

6.4. Monitoring of the quality of surface and ground waters, air, soil and vegetation conditions after liquidation of facilities.

6.4.1. The liquidation plan should include post-liquidation monitoring of the quality of surface and ground waters, air, soil and vegetation conditions (hereinafter - monitoring) in order to evaluate the effectiveness of the liquidation.

6.4.2. The content, scale and duration of monitoring is determined in accordance with the terms of the issued environmental permit.

6.4.3. Expenses associated with conducting monitoring include:

- capital costs (for example, for the arrangement of observation posts, monitoring stations for surface water quality, atmospheric air, groundwater monitoring wells, experimental sites for research, related buildings, purchase and installation of equipment, instruments, sensors);
- current costs for operation, maintenance and repair, sampling, laboratory research, data analysis and reporting to the authorized body;
- execution of specific tasks and procedures related to the termination of operations (such as specialized inspections, assessments, the closure or preservation of hydrogeological wells, specific actions concerning artificial reservoirs and waterways, including ponds, lakes, canals, restocking of reservoirs, initiatives for biodiversity restoration and ecosystem services, installation of barriers, cautionary signage) in compliance with the conditions specified in the granted environmental permit.

6.5. The calculation of the amount of financial security.

6.5.1. The amount of financial security should be calculated in compliance with requirements of Methodological guidelines available in the RK.

6.6. Determination of the planned cost of main works and liquidation activities in the Company.

6.6.1. The calculation of the estimated cost for primary tasks and liquidation activities should be carried out by analyzing the prevailing market prices for executing the specified tasks and activities outlined

in paragraph 6.2 of the Standard.

6.6.2. When preparing the calculation, an important condition is the validity and consistency, which is ensured by the use of reliable sources of information, as well as the use of uniform approaches and methodology when determining for each category of costs. The calculation provides a description of the sources of information on which it was based.

6.6.3. Information (price lists, commercial offers) received from business entities selling them, as well as sources of commercial information that are in the public domain shall be used as sources of information on the market value of the relevant goods, works and services. The planned cost of the relevant goods, works and services is considered according to the arithmetic mean of the data obtained in accordance with part one of this clause. The arithmetic mean is determined based on data from at least three business entities and (or) sources of commercial information that are publicly available.

6.6.4. The determination of main expenses for reclamation, restoration and (or) waste disposal is made the basis of an analysis of the market value of the services of specialized organizations engaged in relevant activities.

6.7. Rules for the creation of the liquidation fund by SA landfill operator.

6.7.1. The liquidation fund is formed for its closure, land reclamation, environmental impact monitoring and pollution control after the landfill closure.

6.7.2. To establish the closure fund for the landfill project, it is necessary to determine the volume of work for closure, land reclamation, environmental impact monitoring, post-closure pollution control, as well as the funds required to carry out these activities. Additionally, the landfill project should include provisions for adjusting the work plan and cost estimates for their implementation.

6.7.3. Based on the landfill project, a comprehensive cost estimate must be developed, which should encompass all expenses associated with the tasks specified in the project. These expenses are calculated based on the anticipated start date of the closure work, considering the inflation index.

6.7.4. The closure fund should be formed through annual contributions, commencing from the date of the landfill's operation. The annual contributions to the closure fund should be determined directly proportional to the overall estimated cost of landfill closure, calculated for a specific period (number of years) within which the landfill will be liquidated.

6.7.5. Annual contributions to the liquidation fund are made to a special escrow account in second-tier banks in the territory of the Republic of Kazakhstan. A separate escrow account with the Treasury is opened for a landfill operator with a state-owned site to form a liquidation fund. Annually, during the first quarter of the year following the reporting one, the authorized body in environmental protection should be informed about contributions made to the liquidation fund in accordance with the RK current environmental legislation.

6.8. Liquidation plan and methodology for calculating the approximate cost of liquidating the consequences of operations for the extraction of solid minerals in the Company.

6.8.1. General provisions.

6.8.1.1. The liquidation plan is intended to provide reliable and comprehensive information on the planning of actions aimed at elimination of consequences of subsoil use, considering technical, environmental and social factors in order to protect stakeholders' interests from dangerous consequences that may occur as a result of the cessation of mining operations.

6.8.1.2. The liquidation plan is prepared: for a site for the extraction of solid or common minerals; for the site for the use of subsoil space during the placement and (or) operation of objects for the placement of technogenic mineral formations of mining and (or) mining and processing industries; for the exploration site in that part of it, within which the total volume of extracted rock mass and (or) displaced soil exceeds

one thousand cubic meters.

6.8.2. Planning method for remediation of consequences of subsoil use.

6.8.2.1. The liquidation plan is a description of the liquidation planning process, which expands the ultimate goal of liquidation into a hierarchical sequence of liquidation tasks down to the level of individual liquidation activities, works, determining the order of their execution and final results, considering the complex nature. The complexity of liquidation planning implies full coverage of scientific, organizational, production and other measures aimed at achieving the goal of liquidation and fulfilling the tasks of liquidation. The basis for achieving the goal of liquidation is the principles of liquidation, which must be followed when developing a liquidation plan. These principles define clear and measurable cleanup objectives for all elements of a future cleanup project.

6.8.2.2. For each liquidation task, at least two alternative options for their implementation, ensuring the achievement of the liquidation goal, should be considered. Successful completion of the liquidation tasks set is determined by the compliance of the liquidation criteria defined for these tasks.

6.8.2.3. When developing a liquidation plan, the subsoil user must involve stakeholders. Stakeholders are involved in defining the purpose of the liquidation, developing and refining the objectives of the liquidation, in the selection of measures for liquidation, determining the criteria and other aspects of planning the liquidation. Liquidation planning provides for the necessary studies. Liquidation studies are conducted in accordance with the research plan specified in the liquidation plan. Liquidation studies are carried out to resolve uncertainties about liquidation activities or to reduce them to an acceptable level.

6.8.2.4. The findings of the liquidation study incorporate local characteristics and are utilized in formulating liquidation alternatives, establishing objectives, measures, and criteria for liquidation. These findings should be shared with relevant stakeholders to gather their input on liquidation planning prior to submitting the liquidation plan for initial and routine industrial safety and state environmental assessments.

6.8.3. The main components of planning liquidation of consequences of the subsoil use.

6.8.3.1. The key elements of planning the liquidation of consequences of subsoil use at the site of extraction of solid minerals and the site of the use of subsoil space during the placement and (or) operation of facilities with technogenic mineral formations of mining and (or) mining and processing industries are: purpose of liquidation; liquidation tasks; liquidation options; selected liquidation measures; liquidation criteria.

6.8.3.2. When determining the tasks for liquidation process, it is essential to consider multiple options for their execution. Moreover, the opinions of relevant stakeholders, as recorded in the minutes of hearings, working groups, and/or through written correspondence for each subsoil plot, should be considered. All liquidation options must be thoroughly described and documented.

6.8.3.3. The selected liquidation activity represents a list of specific works and actions carried out for liquidation purposes. The choice of a specific measure is justified by the existing findings of scientific research, laboratory tests, current literature, laboratory or pilot tests.

6.8.3.4. Considering environmental aspects, the proposal of stakeholders, the availability of technologies, practices, the results of environmental monitoring and studies of liquidation for the purpose of reclamation, the selected liquidation measure is adjusted before the end of subsoil use. The subsoil user provides an action plan that describes changes in the choice of a liquidation measure.

6.8.3.5. The selected liquidation measure provided for in the liquidation plan, which received positive conclusions from the industrial expertise and the state environmental expertise, is considered in the liquidation project for each object of the subsoil area.

6.8.3.6. Liquidation planning is accompanied by an assessment of emerging and expected risks, the use of which helps to reduce costs in the process of eliminating the consequences of subsoil use. Risk assessment is applied when: determining liquidation works options comparable to a risk level; identifying

a potential risk for the successful completion of liquidation operations; development of acceptable and realistic liquidation criteria; development of the term and economic efficiency of the liquidation results; calculation of the cost of liquidation works; improving the quality of ongoing liquidation operations (eg surface landscaping, drainage system pollution management, erosion, leaks).

6.8.3.7. The detail of the description in the liquidation plan for each individual object of the subsoil plot is directly proportional to the level of risk for this object. The higher the level of risk, the more detailed the description.

6.9. The process of planning the liquidation of consequences of subsoil use.

6.9.1. Decommissioning and reclamation planning is an ongoing process, starting at a conceptual level and refined as mining operations evolve.

6.9.2. The content of the initial liquidation plan should consider: determination of liquidation tasks for individual objects of the subsoil area; a realistic description and evaluation of options for liquidation on an indefinite or indefinite basis, as well as in the event of an unforeseen liquidation; identified uncertainties related to objectives, options and criteria for elimination, as well as potential elimination studies that address these issues; the concept of the maximum degree of violations of the integrity of the land cover, as well as the landscape after liquidation; requirements for liquidation monitoring; forecasts of risks for the environment, population and animals after liquidation (risk assessment); the amount of the approximate estimated cost of liquidation measures, the method (methods) and the amount (s) of security (securities) of the obligation to liquidate.

6.9.3. The liquidation plan is reviewed as mining operations develop, but no later than three years from the date of receipt of the last positive conclusion of the industrial safety and state environmental expert review, as well as when changes are made to the mining plan. Each subsequent revision of the liquidation plan contains a clarifying level of detail in planning for the liquidation of implications of subsoil use for individual objects of the subsoil plot, as well as for objects subject to progressive liquidation during mining operations. The purpose of the next review of liquidation plan is to identify uncertainties in the liquidation options and to determine the direction of the liquidation study.

6.9.4. The content of the liquidation plan for subsequent revisions during mining operations should consider: clarification or change of liquidation tasks; progressive liquidation schedule; updated descriptions of options for liquidation on an indefinite time or on an indefinite basis, as well as in the event of an unforeseen liquidation, with the level of detail that corresponds to the available information; action plan in case of unforeseen circumstances during the implementation of liquidation measures in relation to individual objects of the subsoil plot (for example, if poor water quality does not allow the quarry to be flooded); description of the liquidation options considered and justification of the chosen liquidation option; adjusted plans of liquidation studies; substantiation of the achievability of liquidation tasks through the implementation of selected liquidation measures; elimination criteria for each liquidation task; new photos of the subsoil use object and a description of the expected landscape after the liquidation is completed; stakeholder participation plans; preliminary (during the period of mining operations) measures for liquidation monitoring after completion of the main liquidation works. Liquidation monitoring activities should be provided for in the liquidation plan finally closer to the planned completion of subsoil use; descriptions of the most likely post-liquidation risks for the environment, people and animals (risk assessment); the specified amount of the approximate estimated cost of liquidation measures for a three-year period, the method (methods) and the amount (s) of security (securities) of the liquidation obligation.

6.9.5. The final liquidation plan, with positive conclusions of the industrial safety expertise and the state environmental expertise, is drawn up no earlier than three years before the completion of subsoil use.

6.9.6. The final response plan provides the justification and analysis of the selected response option, a detailed description of the response activities, the results of response studies, the response monitoring plan after completion of major response activities, and the contingency plan.

7. Stakeholder engagement on environmental protection management in the Company

7.1. The Company is committed to maintain a constant dialogue with stakeholders. The concept of "stakeholders" covers organizations, communities and individuals that form a system of expectations and, accordingly, influence the adoption of management decisions in the Company and are, in turn, influenced by these decisions.

7.2. The Company is aware of the high level of responsibility to all stakeholders. Therefore, the business management concept is focused on meeting the expectations of all stakeholders in the integrated sustainable economic, social and environmental development of the Company that meets the needs of the present and does not pose a threat to capabilities and aspirations of future generations.

7.3. It is imperative to implement feedback monitoring in all subsidiary companies, following the example of “Samruk-Energy” JSC. This monitoring system enables timely responses to environmental protection management-related complaints and suggestions from all stakeholders.

7.4. “Samruk-Energy” JSC has organized the following communication channels on environmental issues:

- Hotline – <http://www.samruk-energy.kz/ru/navigation-and-support/hotline>;
- Feedback – <http://www.samruk-energy.kz/ru/navigation-and-support/feedback-all>.

7.5. Inquiries are reviewed in terms of affected aspects, determination of the regions with the largest number of appeals, categories of persons that contacted “Samruk-Energy” JSC group of companies, statistics on the subject of appeals and analysis of complaints. Each complaint must be assigned a category.

7.6. The results of the analysis of inquiries received are communicated to the Board of Directors. Based on the results of monitoring complaints and suggestions, actions aimed at improvement of the Company’s operations are developed.

8. References to laws, regulations, codes and standards

No	Document title
1	Environmental Code of the Republic of Kazakhstan dated January 2, 2021 No. 400-VI RK law
2	Water Code of the Republic of Kazakhstan dated July 9, 2003 No. 481-II
3	Code of the Republic of Kazakhstan "On Subsoil and Subsoil Use" dated December 27, 2017 No. 125-VI
4	The Republic of Kazakhstan law "On Compulsory Environmental Insurance" dated December 13, 2005 No. 93-III
5	The Republic of Kazakhstan law "On Specially Protected Natural Territories" dated July 07, 2006 No. 175-III
6	Order of the Minister of Environment and Water Resources of the Republic of Kazakhstan "On approval of certain methodological documents in environmental protection" dated June 12, 2014 No. 221-O
7	Order of the Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan “On approval of the Instructions for organizing and conducting an environmental assessment” dated July 30, 2021 No. 280
8	The order of acting Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan "On approval of the Rules for issuing environmental permits, submitting a declaration on the impact on the environment, as well as forms of environmental permits for impact and the procedure for completing them" dated August 9, 2021 No. 319
9	Order of the Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan “On approval of the Rules for the formation of a liquidation fund by the landfill operator” dated August 22, 2022 No. 579

10	Order of the Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan “On approval of the Methodology for determining the amount of financial security for the fulfillment of obligations to eliminate the consequences of the operation of a Category I facility” dated September 06, 2021 No. 356
11	Order of acting Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan "On approval of the Rules for the development of a waste management program" dated August 9, 2021 No. 318
12	Order of acting Minister of Energy of the Republic of Kazakhstan "On approval of the criteria for classifying consumer waste as secondary raw materials" dated July 19, 2016 No. 332
13	Order of the Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan "On approval of the Rules for the implementation of compensation for the loss of biodiversity" dated May 19, 2021 No. 151
14	Order of acting Minister of Health of the Republic of Kazakhstan "On approval of the Sanitary Rules" Sanitary and epidemiological requirements for the collection, use, application, disposal, transportation, storage and disposal of production and consumption waste " dated December 25, 2020 No. KR DCM-331/2020
15	Order of the Minister of Health of the Republic of Kazakhstan "On approval of the Hygienic standards for the safety of the environment" dated April 21, 2021 No. KR DCM-32
16	"On Approval of the Rules for Conducting State Environmental Expertise" dated August 9, 2021 No. 317
17	Order of the Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan "On approval of the Distribution of functions and powers between the authorized body in the field of environmental protection and territorial divisions" dated September 13, 2021 No. 370
18	Order of the Minister of Agriculture of the Republic of Kazakhstan “On Approval of the Rules for Primary Water Accounting” dated March 30, 2015 No. 19/1-274
19	Order of the Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan "On approval of the list of types of waste for disposal at landfills of various classes" dated September 7, 2021 No. 361
20	Order of the Vice Minister of Ecology and Bioresources of the Republic of Kazakhstan "Guidelines for determining the level of pollution of environmental components with toxic substances from production and consumption waste" RND 03.3.0.4.01-96
21	Order of acting Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan "On approval of the waste classifier" dated August 6, 2021 No. 314
22	Order of the Minister of Energy of the Republic of Kazakhstan "On approval of the List of pollutants whose emissions are subject to environmental regulation" dated June 25, 2021 No. 212
23	Order of the Minister for Investments and Development of the Republic of Kazakhstan “On approval of the Instructions for drawing up a liquidation plan and the Methodology for calculating the approximate cost of liquidating the consequences of operations for the extraction of solid minerals” dated May 24, 2018 No. 386
24	Sanitary rules "Procedure for the accumulation, transportation, neutralization and disposal of toxic industrial waste" SP 3.01.057-97
25	Procedure for Setting Limits on Production Waste Generation and Disposal GND 03.1.0.3.01.96
26	System of standards in the field of nature protection and improvement of the use of natural resources Basic provisions of GOST 17.0.0.01-76 (ST SEV 1364-78)
27	Resource saving. Waste management. Classification, identification and coding of waste. Basic provisions of GOST 30775-2001
28	Resource saving. Waste management. Waste Hazard Passport. Basic requirements of GOST 30774.2001
29	Environmental management systems. Requirements and guidance for the application of ISO



	14001-2015
30	Landfills for the neutralization and disposal of toxic industrial waste SN RK 1.04-01-2013
31	“Samruk-Energy” JSC Development Strategy for 2022- 2031 dated October 29, 2021 Minutes No. 11/21
32	Corporate governance system policy of “Samruk-Energy” JSC group of companies dated November 8, 2021 Minutes No. 12/21