Aktau Port

Port Environmental Review System

2021

Content

MESSAGE FROM THE CHAIRMAN OF THE BOARD

Dear partners, colleagues, readers!

Today, Aktau Commercial Seaport is the first seaport in Kazakhstan, which seeks to become a "green" port. The main principles of the Aktau port are aimed at strengthening economic prosperity, social responsibility and environmental protection within the framework of sustainable development in order to achieve a balance between environmental impact and the economic interests of the port.

Aktau Port has successfully implemented ISO 9001:2015 (Quality Management System), ISO14001:2015 (Environmental Management System), ISO 45001:2018 (Occupational Health and Safety Management System) certification, and important steps are being taken towards the PERS (Port Environment Review System) certification process.).

Climate change is one of the most important issues of our time. We are aware of the importance of our impact on the environment and society and, continuing to work on the implementation of a sustainable development system, we strive to maintain a balance of interests of stakeholders. Being in the group of companies JSC "NC "Kazakhstan temir joly", we were the first to embark on the path to sustainable development. In 2021, we have been actively working on the Organization for Security and Cooperation in Europe (OSCE) EcoPorts project, a globally recognized standard for environmental management in ports and port terminals, and have already received an interim SDM certificate and OSCE recommendations.

Of course, the COVID-19 pandemic has had a certain impact on the Company's operations, but the efforts of previous periods in all areas of our business have provided good support for the Company during this difficult period. At the same time, the rapid adaptation of the entire team to work in the new realities made it possible to end 2021 with stable production and financial performance.

We are pleased to present to you our 2021 Annual Environment Report, which covers the important milestones achieved during the year in terms of sustainability. This report is intended to provide an understanding of the processes and actions taken to promote the sustainable development of the Aktau Port.

I would like to thank the staff and partners of the Company for their contribution to the achievement of indicators and wish them new achievements!

Sincerely,
Abay Turikpenbaev
Chairman of the Board (President) JSC "NC "ASCP"

HISTORY

The history of Aktau port begins in 1963, when it became necessary to transport the products of the uranium industry and the oil fields of Mangyshlak. The creation of the port began with the construction of the main and auxiliary breakwaters and at the same time four dry cargo berths. In 1969-1986, four oil loading berths and a ferry complex were created. Most of the transportation through Aktau port accounted for oil - up to 7 million tons per year in the early 80s, while the transportation of dry cargo did not exceed 300 thousand tons per year.

After the collapse of the USSR, the Aktau port became an important transport hub connecting the countries of the Caspian basin, and assumed strategic importance for the development of the national economic complex of sovereign Kazakhstan. In 1999, Aktau port underwent a complete reconstruction, which became a turning point in the history of its development. The President of the Republic of Kazakhstan N.A. took part in the completion ceremony of the reconstruction of Aktau port N.A. Nazarbaev.

Today, Aktau Commercial Seaport is a modern multi-purpose terminal that provides transportation of goods from east to west, from north to south and in the opposite direction 12 months a year and 24 hours a day. Its location at the intersection of several transport corridors is of strategic importance in the development of the state. The increase in port capacities will soon allow Kazakhstan to become an active participant in the process of servicing international cargo flows within the framework of global strategic programs. 2015 marked the beginning of a global government project to create a multimodal transport corridor that allows for the unhindered transit of goods from Asia to Europe and the Middle East.

PORT PROFILE

Aktau Port - located on the eastern coast of the Caspian Sea, designed for international transportation of various dry cargoes, crude oil and oil products, as well as for servicing passenger and cargo ferries.

The functions of the maritime Port Authority are assigned to the Maritime Port Authority (hereinafter referred to as the MAP), which ensures the safety of navigation in the Port water area, establishes control and supervision over compliance with the requirements for the procedure for ships entering the Port and leaving the Port.

The movement and processing of vehicles in the Port, the movement of passengers and crew members of ships is carried out in accordance with the technological schemes and rules approved and in force in the territory of the Port.

The port has the following berths:

Berth No.	**Length, m**	**Berth depth, m**	**Purpose**
1	150	4,6	General cargo / containers
2	150	4,6	General cargo / containers and Ro-Ro ferry mooring
3	100	4,6	General cargo/bulk cargo
4	192	6,8	Oil pier
5	192	6,8	Oil pier
6	150	4,6	Multi-purpose - loading of grain, heavyweights and mooring of the Ro-Ro ferry
7	70	4,0	Port fleet
8	140	5,1	Ferry pier
9	150	5,1	Oil pier
10	150	6,8	Oil pier
11	120	4,8	Oil pier
12	80	4,0	Small vessels
Ecological jetty	55	1,8	Boom berth

The port has the following facilities:
- Gantry cranes with lifting capacity from 10 to 42 tons;
- Mobile cranes with lifting capacity from 36 to 84 tons;
- Auto-loaders with a carrying capacity from 1.6 to 28 tons;
- Reachstackers with a carrying capacity of 45 tons;
- Ecological equipment for liquidation of the oil spill.

The Port has the following Port Fleet:
- Batyr - port tug tilter - 2700 hp;
- Zhenis - port tug tilter - 1700 hp;
- Bulak - vessel-collector of bilge and fecal waters;
- Oil and garbage collector NMS-205A.

ACTIVITIES

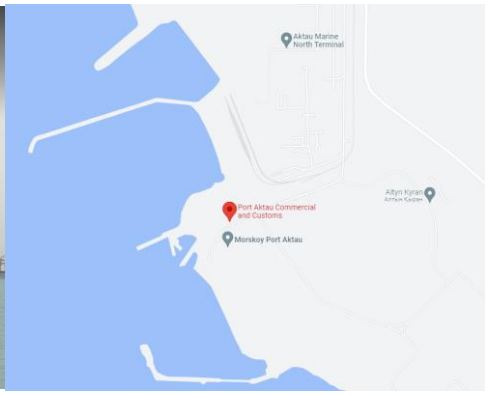
The activity of the Aktau port is based on commercial principles of relationships with customers in the provision of port services in a competitive market.

Services in the field of natural monopolies (regulated by the Law of the Republic of Kazakhstan "On Natural Monopolies"):

• Services for the ship's call at the seaport for transshipment of oil and oil products through pipelines to/from the tanker/tankers with subsequent exit from the port (vessel call);

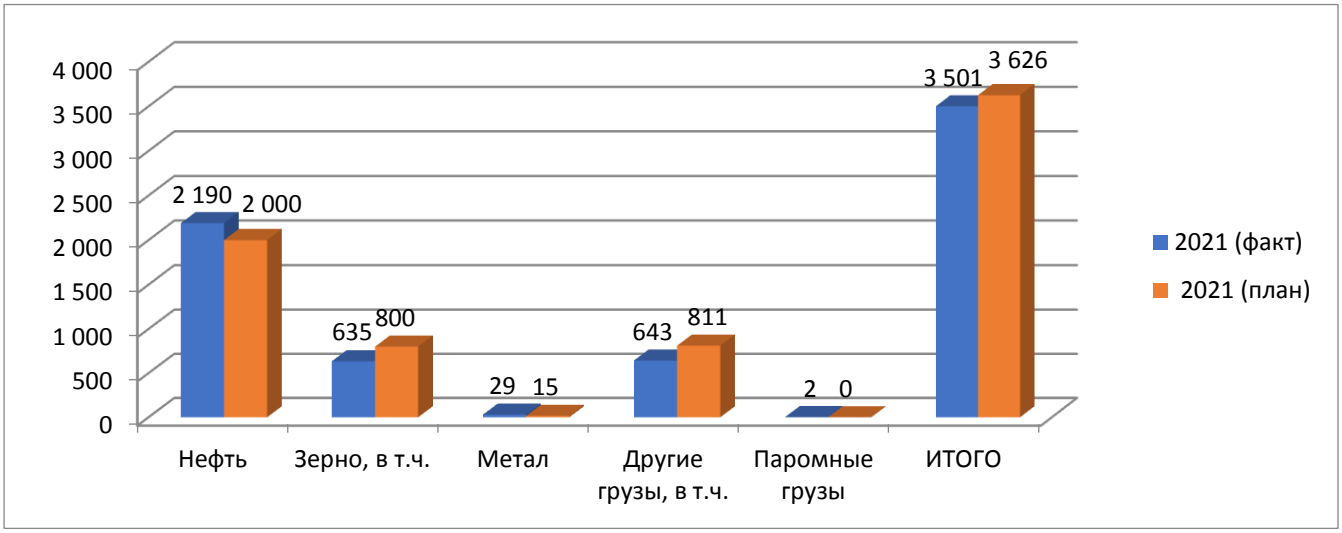
• Transmission and (or) distribution of electrical energy, water supply through distribution networks, wastewater disposal.

On the basis of agreements with the owners of facilities located on / near the territory of the Port and at the request of the Master of the Vessel, the Port provides services for the supply of water through the distribution networks of the Port, for the removal of sewage, for the transmission and distribution of electrical energy.



Cargo statistics:

Today, Aktau port plays an important role in the development of the country's economy, since the main flows of export-import and transit cargo pass through it both in the direction of the Caspian countries and far abroad countries.



The main nomenclature of cargo handled in the Aktau port is oil and grain. The Aktau port cargo turnover indicators in recent years show a negative trend, starting from 2012 to 2021.

After analyzing the structure of Aktau port cargo turnover, by type of cargo over the past ten years, it should be noted that the largest share of the total volume is oil, and the smallest is other cargo.

ENVIRONMENTAL MANAGEMENT SYSTEM

Aktau Port operates in accordance with applicable laws, regulations, operating guidelines established in occupational health and safety, environment and quality management system, which were implemented in accordance with ISO 45001:2018, ISO 14001:2015 and ISO 9001:2015 internationally recognized standards and the needs and expectations of stakeholders.

Aktau Port is motivated by the constant pursuit of improvement and innovation of new environmental projects and has decided to obtain the new PERS (Port Environmental Review System) environmental certification promoted by ESPO (European Sea Ports Organization) in 2022.

The main goal of the environmental management system of JSC "NC "ASCP" is to reduce and prevent adverse environmental impacts as a result of economic activities.

In order to effectively solve the tasks of achieving the main goal as a whole for the enterprise in the port, internal regulatory documents have been developed and approved on the basis of international and national legislation that regulate the activities of business entities in the port area, on lease terms and on other terms.

The organizer and coordinator of activities in the field of environmental protection and rational use of natural resources in Aktau port is the labor protection and industrial safety service, which pursues a unified policy at the enterprise aimed at optimizing production and operational activities to achieve the goals:

1) Tthe most efficient use of resources and the desire to reduce consumption and waste, prevent pollution, save energy, encourage the recycling of materials and minimize greenhouse gas emissions;

2) Reduction of environmental damage from oil spills by increasing the efficiency of work to eliminate pollution through the use of advanced technologies and modern equipment, high-tech materials and training of qualified personnel;

3) Ensuring an environmentally sustainable awareness culture where responsibilities are clearly assigned;

4) Periodic review of the Environmental Policy and objectives to confirm sustainability and track progress towards continuous improvement;

5) Exercising effective management of interrelated environmental, health, safety and quality issues as they apply to the port area, supply chain and inland regions where the port has responsibility or may have an impact;

6) Iinfluencing specific needs and collaborations with customers, suppliers, contractors, business partners, authorities and other stakeholders to achieve sustainable environmental performance through consultation, collaboration, clear contractual requirements and commitments;

7) The desire to mitigate environmental, social and economic aspects through the adoption of environmentally friendly technologies in the procurement of necessary equipment, modes of transport and the maximum use of electricity instead of combustible fuels;

8) Conducting trainings, technical sessions on environmental issues for employees in order to raise awareness of sustainability and encourage sincere respect for environmental protection among our employees in their daily work;

9) Interaction with stakeholders and the local community through outreach activities for learning and cooperation;

10) Reviewing and implementing, as appropriate, the environmental policy and guidelines of a representative organization such as the European Seaports Organization or other relevant organisations;

11) Preparation of a publicly available annual environmental report that describes the progress and trends in the environmental performance of the port and its placement on the Company's website.

Internal and external factors affecting the environmental management system JSC "NC "ASCP"

The main internal factors: the activities of the port mechanization service, the loading and unloading complex, the energy service, communications and port facilities, the port fleet.

The enterprise standard STP ASCP 037-20 "Identification of hazards and environmental aspects, their assessment and risk management in the field of industrial safety" was developed and approved by the order of the president. developed in order to continuously improve industrial safety and increase stakeholder satisfaction, ensure a unified procedure for identifying hazards and environmental aspects, their assessment, risk management in the field of industrial safety in the National Company Aktau Commercial Sea Port JSC and is the basis for action planning at all levels of management.

The Order of the Chairman of the Management Board (President) dated November 20, 2020 No. 570-OD approved the Register of Significant Environmental Aspects of JSC NC ASCP.

Main external factors: activities of contractors located on the territory of the Company, ships arriving and staying in the port water area, customers - shippers, ships of the military navy.

Situational map of Aktau port location

ENVIRONMENTAL POLICY STATEMENT

Environmental policy
Joint Stock Company "National Company
"Sea port of Aktau"

Sea Port of Aktau (hereinafter called Port) is a leading provider of quality port based services in the Caspian region. Its main activities are the continuous and successful delivery of timely and quality services to its customers in the sphere of cargo handling, including: loading/unloading, warehousing operations, cargo transshipment between ships and other types of landside transport, as well as providing timely and quality service to sea vessels entering the port.

In the process of carrying out its activities, the Port is continuously mindful of its obligation towards ensuring compliance with requirements in current environmental legislation, implementation of measures based on international standards e.g. ISO 9001, ISO 14001), and carrying out necessary, comprehensive measures aimed at the social and economic development of the region and the local community in which it operates.

The Port's activities and services are also focused on controlling and where possible, in the reduction of emissions, as well as minimizing any negative impact on coastal waters, the atmosphere and land

To ensure that the impact on the environment is minimized, the Port intends to/carries out the following measures:

1. implementation of the requirements of applicable environmental legislation (items of the Industrial Environmental Control Program, Environmental Action Plan);
2. compliance with environmental legislation requirements as included in international conventions ratified by the Republic of Kazakhstan;
3. co-operation with customers, suppliers, authorities and other stakeholders in the implementation of the Port's Environmental Policy;
4. tracking the carbon footprint in order to promote sustainable development.
5. endeavoring to maximize waste recycling in order to reduce the volume of waste disposed at landfill;
6. inclusion of mandatory clauses in client/contractor contracts on their need to comply with environmental protection measures at port facilities;
7. constant improvement of the Port's approach to better environmental management and allocate necessary resources towards environmental protection;
8. rationalization and economize the use of natural resources, energy and CO2 emissions;
9. publication on its website an annual report on the environmental activities undertaken by the port;
10. provision of an environmental safety training program (including on the job training) for all port workers (and new employees);
11. gradual replacement of the fleet of vehicles and cargo handling equipment to the Euro-5 norms (current standard of the Republic of Kazakhstan) and increased use of compressed gas in vehicles.
12. as a logistics hub, Aktau Port is also a source of CO2 emissions which are associated with its operational activities The Port will strive to reduce CO2 emissions by encouraging companies to reduce their CO2 emissions, promote transportation by rail and pipeline transport instead of road transport.

As a responsible employer, the Port will continue to offer a positive employee experience by providing a sustainable environment in which employees remain healthy, motivated, engaged with a positive outlook towards overall growth. Moreover, the Port wishes that by providing a stimulating and sustainable atmosphere to encourage employees to be directly involved in developing and promoting a more environmental friendly and 'green' outlook.

This policy is to protect the interests of each Aktau port participant. Aktau Port, on the basis that environmental protection is essential to the success of our business and the sustainable growth of our business, that our business practices protect, improve and promote environmental conditions and therefore the well-being of our employees and communities.

Chairman of the Board
(President) **A. Turikpenbaev**

The document was approved by the order of the President of JSC "National Company "Aktau Commercial Sea Port" dated May 17, No. 213-OD.

New Terminal Equipment

The acquisition by the Aktau port at the end of 2021 of 2 modern reachstackers for reloading containerized cargo confirms the port's commitment to the latest achievements in the field of safety and environmental protection.

Our vision is to make Aktau port the cleanest and most efficient bulk material handling facility in the Caspian region.

We make long-term investments to support our continued commitment and plan to purchase new machinery in the future that meets current environmental and hydrocarbon emission standards.

CLIMATE CHANGE AND CARBON FOOTPRINT

Due to global climate change, Aktau port is also affected by the observed decrease in the level of the Caspian Sea. This issue could have a significant impact on our infrastructure and supply chain, which are critical to our ability to create long-term value. In addition to understanding and managing the direct business risks associated with climate change, we are committed to supporting multilateral efforts to limit the impact of rising global temperatures this century. Minimizing the impact of harmful emissions negatively affecting the environment is one of the main goals of Aktau port.

To reduce the environmental impact of our current and future operations, we are voluntarily investing in cleaner technologies and implementing a program to combat idling. Air quality control activities are included in planning, development and operations. Maintaining an efficient transport infrastructure system at the port allows us to reduce our air emissions and is in line with our goal of improving the quality of life and the economy.

Recognizing that not all sources of emissions are under the direct control of the port (e.g. emissions from ships arriving at the port, third parties), we are looking for opportunities to improve air quality by facilitating and encouraging partnerships, outreach to help customers, tenants and other stakeholders in reducing shipping-related emissions.

We are currently working on a carbon footprint project. Work is underway to calculate the fuel consumption per reloaded unit of cargo. The comparative analysis will include data on the evaluation of the effectiveness of using purchased reachstackers instead of mobile cranes when handling containers.

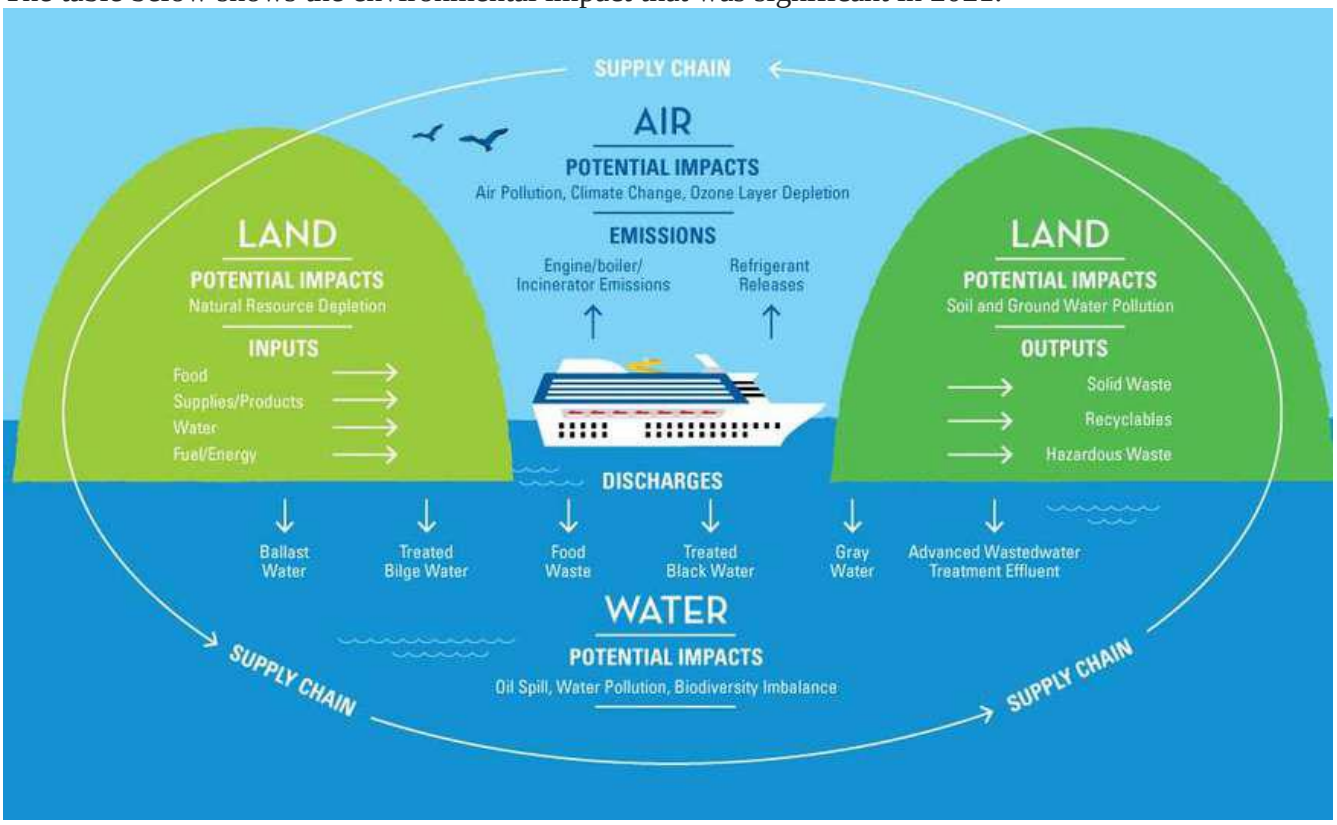
According to preliminary estimates, it is expected to reduce fuel consumption per unit of transshipped cargo and, accordingly, reduce CO2 emissions by 5 times.

REGISTER OF ENVIRONMENTAL ASPECTS, LEGISLATIVE REQUIREMENTS AND PERFORMANCE INDICATORS

Identification and assessment of the significance of environmental aspects

The environmental aspects of Aktau Port include direct aspects that arise from activities and services, as well as indirect aspects that may be affected, for example, those arising from the activities of stakeholders and contractors operating in the Aktau Port area. Aktau Port identifies environmental aspects and evaluates their significance. Aspects identified in production and office activities are combined into the Register of Environmental Aspects, created as part of the implementation of the ISO 14001: 2015 standard, as well as EcoPorts recommendations according to the SDM report.

The table below shows the environmental impact that was significant in 2021.



Events	Key Aspect	Possible impacts	Existing control

Direct aspects

Marine fleet - bunkering

Bunker fuel leak

Water area pollution

1. Control of fastening of connections before the start of work.
2. Monitoring compliance with the "Instructions for Bunkering Vessels with Fuel (Oil) and Drinking Water".

Portoflot - Shipping and navigation

Operation of ships in the port area

Air emissions, fuel leakage

1. Provision of shore power (electricity) for the port fleet vessels while moored at the berth.
2. Carrying out quarterly calculations of emissions from port fleet vessels (analysis compared to the previous period).
3. Ensuring the availability of sorbent materials in case of detection of pollution in the port water area.

Waste management (from ships)

Acceptance of waste from ships, delivery for disposal of oily, household and faecal waters and garbage

Pollution of the water area, soil with oily waters, ship waste, fuel and lubricants

1. Visual inspection of the water area.
2. Compliance with the Instruction "Removal of bilge, sewage and garbage from ships".
3. Cleaning up the port water area from debris and straits by the port's forces and means.

Environmental incidents

Oil spill

Pollution of the water area, soil

1. Control of pollution of the water area;
2. Control of the presence of sorbents for operational stripping;
3. Availability of a warning scheme and an Oil Spill Response Plan.

Waste management (from land sources)

Operation of devices (formation of mercury-containing lamps, used batteries)

Soil pollution, waste disposal

Collection and storage in a special box until the transfer of mercury-containing lamps and devices, used batteries for recycling under the contract.

Greenhouse gas emissions

Greenhouse gas emissions from emergency diesel generators

Air emissions

1. Accounting for the hours of operation of emergency diesel generators.
2. Carrying out quarterly calculations of emissions.

Indirect Aspects/Third Party Activities

Handling operations: Dangerous goods / oil, gas, oil products

Oil transshipment

Water area pollution

1. Strict observance of the Work Flow Chart (RTC) for the transshipment of "Oil and Oil Products" cargo.
2. Ensuring a clear interaction between the parties shore-ship, in order to safely carry out cargo operations, by signing an agreed Plan of cargo operations.
3. Compliance with the Alert Scheme and the Oil Spill Response Plan when the risk is realized.

Suppliers

Fuel supply. fuel leak

Soil pollution

Provide for the existence of relevant environmental protection requirements in the contract with the Supplier.

Logistics operators

Roll-on-roll-off of cars of JSC "Kaskor trans service", pollution of railway tracks with oil products, garbage

Air emissions, soil pollution

1. Periodic visual inspection of the port area, monitoring of emissions from diesel locomotives, fuel leaks.
2.Sending appropriate letters to JSC "KaskorTransService" upon detection of pollution.

Shipping companies

Activities of shipping companies

Air emissions, water pollution

1. Periodic visual inspection of the port area, monitoring of emissions from ships.
2.Sending appropriate letters to the agency companies in case of contamination.
3. Commissioning of the Oil Spill Response Plan.
4. Acceptance from ships of bilge, sewage and garbage without restrictions.

130000, Republic of Kazakhstan, Mangistau region, Aktau, Umirzak village, tel .: 8 (7292) 544549, 445100, fax: 445101, www.portaktau.kz, e-mail: aktauport@aktauport.kz			Register of environmental and legal requirements and environmental performance indicators				
No.	**Theme**	**Aspect name**	**Impact on**	**Responsible person**	**Applicable legislation**	**Requirements of the law**	**Control measures**
1	A.74a Greenhouse gas emissions	Operation of marine engines (start, stop)	Greenhouse gas emissions into the atmosphere	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 203. Monitoring of compliance with permissible emissions standards, paragraph 1.	Monitoring of compliance with the standards of permissible emissions of a stationary source and (or) a set of stationary sources and their impact on the quality of atmospheric air is carried out in accordance with the requirements of this Code and the conditions established in the environmental permit.	1. Providing coastal power (electricity) to the vessels of the port fleet while staying at the berth. 2. Conducting quarterly calculations of emissions from ships of the port fleet (analysis in comparison with the previous period).
2	A.28 Waste management (from ships)	Removal from ships, delivery for disposal of oily, household waste water and garbage (waste paper, plastic, solid waste)	Soil contamination, waste disposal	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 351. Waste not acceptable for landfills.	It is forbidden to accept for burial at landfills: - waste paper and cardboard	1. Sorting and transfer of waste paper, plastic and cardboard as recyclable materials for processing under a contract. 2. Removal of solid waste to the landfill under a contract.
3	A.54 Port industry: Reception, treatment and recycling of waste	Leakage of oily, household fecal waters, waste disposal	Wastewater discharge of pollutants, soil contamination, waste disposal	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan. Article 278. Environmental requirements for shipping, paragraph 3.	All vessels must be equipped with closed fuel bunkering systems, tanks for collecting contaminated water and household waste, equipped with devices that do not allow discharge and discharge into open water bodies.	1. Ensuring the reception of sewage and garbage from ships without restrictions. 2. Keeping records of the volume of accepted waste. 3. Ensuring the existence of contracts for the transfer of garbage and wastewater for disposal to third parties.

4	A.82 Efficiency in the use of water, energy and resources	Water consumption and sewerage	Discharges of pollutants, consumption of natural resources	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 222. Environmental requirements for wastewater discharge	Operators of facilities of I and (or) II categories, discharging wastewater or having a closed water supply cycle, must use water metering devices and keep records of water consumption and water disposal in accordance with the water legislation of the Republic of Kazakhstan.	1. Availability of water metering devices. 2. Application of single-lever mixers equipped with aerators. 3.The plumbing is in good condition, no water leakage is allowed. 4. All waste water is transferred to the shore into a centralized sewage system.
5	A.82 Efficiency in the use of water, energy and resources	Electricity consumption	Consumption of natural resources	Navigation safety and fleet operation service	"Law of the Republic of Kazakhstan dated July 9, 2004 No. 588-II" "On the electric power industry" " Article 19. Rights and obligations of consumers of electrical and thermal energy, paragraph 2, paragraph 1)"	Consumers of electric and thermal energy are obliged to: 1) maintain the proper technical condition of electrical and power installations and commercial metering devices owned by consumers, fulfill the requirements for their technical condition in accordance with the regulatory legal acts of the Republic of Kazakhstan in the field of electric power	1. Keep records of electricity consumption. 2. Check the proper technical condition of metering devices. 3.Using energy-saving LED lamps.
6	A.78 Changes in terrestrial habitats	Changes to terrestrial habitats	Waste disposal	HSE	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. SECTION 17. PROTECTION OF NATURE, Article 239. General provisions. p. 5	Activities that threaten the destruction of the genetic fund of living organisms, loss of biodiversity and disruption of the sustainable functioning of ecological systems are prohibited.	Organization of the removal of cut grass, tree branches, grain spills after transshipment to livestock farms for livestock feed, as part of supporting livestock breeders during a period of drought and lack of feed in the Mangistau region.
7	A.79 Changes in marine ecosystems	Changes in marine ecosystems	Pollution of the sea	HSE	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. SECTION 17. PROTECTION OF NATURE, Article 239. General provisions. p. 5	Activities that threaten the destruction of the genetic fund of living organisms, loss of biodiversity and disruption of the sustainable functioning of ecological systems are prohibited.	1. Manufacturing and installation of garbage containers in the Saura tract. 2. Organization of periodic volunteer clean-ups in the Saura tract in the framework of preserving the unique flora and fauna of the canyon, preserving the endemic marsh turtle. 3. Removal of garbage after

							volunteer clean-ups to the landfill under the contract.
8	A.80 Noise	Operation of ships (engine room of ships)	Noise	Navigation safety and fleet operation service	Labor Code of the Republic of Kazakhstan dated November 23, 2015 No. 414-V ЗРК. Article 183. Certification of production facilities for working conditions	Certification of production facilities for working conditions is carried out by specialized organizations for the certification of production facilities periodically at least once every five years.	1. Use of ear muffs. 2. Conducting certification of workplaces at least once every 5 years.
9	A.81 Waste	Operation of ships (waste oils, cutting fluids)	Soil contamination, waste disposal	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 351. Wastes not acceptable for landfills	It is forbidden to accept the following waste for burial at landfills: any waste in liquid form (liquid waste).	Export for processing under a contract or transfer for reuse to a receiving organization
10	A.81 Waste	Operation of ships (oily rags)	Soil contamination, waste disposal	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 209. Environmental requirements for the protection of atmospheric air during storage, neutralization, burial and incineration of waste, paragraph 1.	Storage, neutralization, burial and incineration of waste, which may be a source of air pollution, outside specially equipped places and without the use of special structures, installations and equipment that meet the requirements provided for by the environmental legislation of the Republic of Kazakhstan, is prohibited.	Removal of industrial waste to the landfill under a contract
11	A.81 Waste	Operation of ships (used filters)	Soil contamination, waste disposal	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 209. Environmental requirements for the protection of atmospheric air	Storage, neutralization, burial and incineration of waste, which may be a source of air pollution, outside specially equipped places and without the use of special structures, installations and equipment that meet the requirements provided for by the environmental legislation of the Republic of Kazakhstan, is prohibited.	Removal of industrial waste to the landfill under a contract

					during storage, neutralization, burial and incineration of waste, paragraph 1.		
12	A.81 Waste	Operation of ships (used batteries)	Soil contamination, waste disposal	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 351. Waste not acceptable for landfills	It is forbidden to accept for burial at landfills scrap of non-ferrous and ferrous metals, lithium batteries, lead-acid	Transfer of scrap metal and used batteries for processing under a contract
13	A.81 Waste	Operation of ships (scrap metal)	Soil contamination, waste disposal	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 351. Waste not acceptable for landfills	It is forbidden to accept for burial at landfills scrap of non-ferrous and ferrous metals, lithium batteries, lead-acid	Transfer of scrap metal and used batteries for processing under a contract
14	A.28b Waste management (from land-based sources)	Operation of ships (Waste tires / bumpers)	Soil contamination, waste disposal	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 351. Waste not acceptable for landfills	It is forbidden to accept for burial at landfills whole used tires and their fragments	Removal of tires (bumpers) for recycling under a contract
15	A.68 Environmental incidents	Environmental incidents (Oil spill)	Contamination of the water area, soil	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 278. Environmental requirements for shipping	Vessels should be equipped with means that prevents pollution of ship decks with oil products, discharge of polluted sewage into water bodies. Discharge from ships of oil, hazardous substances and waters containing them, food waste, household waste and all types of plastics into water bodies is prohibited.	1. Control of pollution of the water area. 2. Control of the availability of sorbents for operational cleaning. 3. Availability of a notification scheme and an Oil Spill Response Plan.
16	A.28 Waste management (from ships)	Acceptance of waste from ships, delivery for disposal of oily, household waste water and garbage	Pollution of the water area, soil with oily waters, ship waste, fuels and lubricants	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 278. Environmental requirements for shipping	All vessels must be equipped with closed fuel bunkering systems, tanks for collecting contaminated water and household waste, equipped with devices that do not allow discharge into open water bodies.	1.Visual inspection of the water area. 2. Compliance with the Instruction "Removal from vessels of bilge, waste water and garbage." 3.Cleaning the port water area from debris and straits by the forces and means of the port.

17	A.22 Bunkering	Bunker fuel leak	Pollution of the water area	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 278. Environmental requirements for shipping	Refueling of ships at sea should be carried out using systems that exclude spills and leaks of fuel and lubricants	1. Checking the fastening of connections before starting work. 2. Monitoring compliance with the "Instructions for bunkering ships with fuel (oil) and drinking water".
18	A.73 Industry	Oil loading (Oil spill in the port water area due to the fault of the parties: shore (terminal operator) - vessel)	Soil pollution, water area, waste disposal	Ship administration, terminal operator, port dispatcher	Code of the Republic of Kazakhstan" "On subsoil and subsoil use" "dated December 27, 2017 No. 125-VI ЗРК, Article 155. National system for preparedness and actions to respond to oil spills at sea, inland water bodies and in the safety zone.	Object plans are approved by the owners of facilities that carry the risk of an oil spill, after agreement with the territorial subdivision of the authorized body in the field of civil protection and, within ten working days from the date of approval, are sent in a notification procedure to the authorized body in the field of hydrocarbons	1. Availability of an up-to-date Oil Spill Alert Scheme in the port water area. 2. Availability of an Object Oil Spill Response Plan.
19	A.28b Waste management (from land-based sources)	Operation of devices (mercury-containing lamps, used batteries)	Soil contamination, waste disposal	Energy supply department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 365. Environmental requirements in the field of municipal waste management, paragraph 6.	Hazardous components of municipal waste (electronic and electrical equipment, mercury-containing waste, batteries, accumulators and other hazardous components) should be collected separately and transferred to specialized enterprises for recovery.	Collection and storage in a special box until the transfer of mercury-containing lamps and devices, used batteries for recycling under a contract.
20	A.81 Waste	Faulty electrical devices	Soil contamination, waste disposal	Energy supply department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 365. Environmental requirements in the field of municipal waste management, paragraph 6.	Hazardous components of municipal waste (electronic equipment, mercury-containing waste, batteries, accumulators and other hazardous components) should be collected separately and transferred to specialized enterprises for recovery.	Export for processing under a contract

21	A.82 Efficiency in the use of water, energy and resources	Water consumption	Consumption of natural resources	Heat water supply department	The Law of the Republic of Kazakhstan" "On energy saving and increasing energy efficiency" "dated 13.01.2012 No. 541-IV. Article 8. Use of energy-saving equipment and materials, restrictions on the acceptance of new facilities and payment for consumed heat energy, clause 2	It is not allowed to commission new facilities that consume energy and water resources that are not equipped with energy and water metering devices and automated systems for regulating heat consumption.	1. To conduct control of water consumption; 2. Periodic inspection of the sanitary ware; 3. The use of water-saving faucets (single-lever faucets equipped with aerators)
22	A.82 Efficiency in the use of water, energy and resources	Formation of sewage and fecal contaminated water	Wastewater pollution	Heat water supply department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 225. Environmental requirements for wastewater discharge	It is prohibited to discharge wastewater without preliminary treatment into water bodies, onto the terrain and into wastewater storage facilities, with the exception of discharge of mine and quarry waters of mining and metallurgical enterprises into storage ponds and (or) evaporation ponds, as well as waters used for water cooling, in the storage located in the closed (circulating) water supply system.	1. To ensure control over the discharge of sewage and fecal waters into the centralized sewerage system; 2. Periodic control of the health of the plumbing connections.
23	A.81 Waste	Formation of solid household waste	Soil contamination, waste disposal	Garage	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 367. Centralized system for the collection of solid household waste, clause 7	Business entities collecting and transporting solid household waste, or the owner of the waste, carrying out independent export of solid household waste, ensure the delivery of such waste to business entities that recover solid household waste.	Ensuring the timely collection and removal of solid household waste to the landfill under an agreement on specialized transport.
24	A.54 Port industry: Reception, treatment and recycling of waste	Waste paper, plastic, defective electronic equipment	Soil contamination, waste disposal	Department of general services	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 351. Wastes not acceptable for landfills	It is forbidden to accept for burial at landfills: - waste of plastics, polyethylene terephthalate packaging, waste paper, cardboard, electronic and electrical equipment.	1.Sorting into separate containers for collection. 2. Transfer for processing under a contract.

25	A.28b Waste management (from land-based sources)	Mixing industrial waste with solid waste	Soil contamination, waste disposal	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. § 293 Environmental requirements for handling hazardous waste	It is forbidden to mix hazardous waste with non-hazardous waste, as well as various types of hazardous waste with each other during their production, transportation and storage, except for the use of non-hazardous waste for filling, compaction during waste disposal.	1. Conducting periodic internal control for compliance with the Waste Management Instructions. 2. Preparing training programs and lectures for port workers on the methods of sorting industrial waste.
26	A.28b Waste management (from land-based sources)	Storage of used mercury-containing lamps and devices	Soil contamination, waste disposal	Energy supply department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 365. Environmental requirements in the field of municipal waste management	Hazardous components of municipal waste (electronic and electrical equipment, mercury-containing waste, batteries, accumulators and other hazardous components) should be collected separately and transferred to specialized companies for recovery.	1. Ensuring storage of used mercury-containing lamps in a specially equipped place. 2. Keeping a log of accounting for the formation of lamps. 3. Transfer for thermodemercurization (processing) under the contract. 4. Submission of an annual report on waste inventory to government agencies.
27	A.74a Greenhouse gas emissions	Greenhouse gas emissions from emergency diesel generators	Air emissions	Energy supply department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Chapter 9. Environmental Permits. Article 106. General provisions, clause 6.	Greenhouse gas emissions are not subject to environmental permits, with the exception of emissions of substances identified as pollutants in accordance with this Code.	1.Accounting of hours of operation of emergency diesel generators. 2. Conducting quarterly calculations of emissions.
28	A.74 Emissions to air	Wood processing, joinery and carpentry	Air emissions	Repair and construction works Department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 183. Procedure for conducting industrial environmental control	An environmental assessment of the efficiency of the production process within the framework of industrial environmental control is carried out on the basis of measurements and (or) calculations of the level of emissions into the environment, harmful production factors, as well as the actual volume of consumption of natural, energy and other resources.	1. Accounting of hours of work of woodworking machines. 2. Conducting quarterly calculations of emissions. 3. Monitoring the operation of the dust collector.

29	A.81 Waste	Generation of wood waste, grass cuttings, sawdust, shavings.	Soil clogging	Repair and construction works Department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 327. Fundamental environmental requirement for waste management operations	Persons carrying out waste management operations are obliged to carry out the relevant operations in such a way as not to pose a threat of harm to life and (or) human health, environmental damage, and, in particular, without: 1) risk for waters, including groundwater, atmospheric air, soil, flora and fauna; 2) negative impact on landscapes and specially protected natural areas.	1. Organization of the export of cut grass, tree branches to livestock farms for livestock feed, as part of supporting livestock breeders during a drought and lack of feed in the Mangistau region. 2. Removal of wood waste, sawdust, shavings to the population for use in the country.
30	A.74 Emissions to air	Paintwork	Emissions to air	Repair and construction works Department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 183. Procedure for conducting industrial environmental control	An environmental assessment of the efficiency of the production process within the framework of industrial environmental control is carried out on the basis of measurements and (or) calculations of the level of emissions into the environment, harmful production factors, as well as the actual volume of consumption of natural, energy and other resources.	1. Accounting for the consumption of paints and varnishes. 2. Conducting quarterly calculations of emissions.
31	A.81 Waste	Formation of industrial waste (paint and varnish containers, construction waste)	Soil contamination, waste disposal	Repair and construction works Department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 380. Environmental requirements in the field of management of certain types of waste and processes of their life cycle.	When handling certain types of waste, waste owners must ensure compliance with environmental, sanitary and epidemiological requirements, as well as those included in the list approved by the authorized body in the field of environmental protection, national standards in the field of management of certain types of waste.	Removal of industrial waste to the landfill under a contract
32	A.81 Waste	Replacement of sleepers and beams on railway tracks. Generation and disposal of industrial waste	Soil contamination, waste disposal	Port facilities and capital construction Department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 380. Environmental requirements in the field of management of certain types of waste and processes of their life cycle.	When handling certain types of waste, waste owners must ensure compliance with environmental, sanitary and epidemiological requirements, as well as those included in the list approved by the authorized body in the field of environmental protection, national standards in the field of management of certain types of waste.	Removal for disposal under a contract

33	A.23 Dredging	Dredging	Air emissions, decrease / increase in water level in the sea, pollution of the water area, noise, vibration, consumption of natural resources	Port facilities and capital construction Department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 220. General environmental requirements for water use	Individuals and legal entities whose activities cause or may cause pollution, contamination and depletion of water bodies are obliged to take measures to prevent such consequences.	1. Development of design and estimate documentation, environmental protection section. 2. Obtaining permits in state bodies before the start of work. 3. Implementation of measures to compensate for damage (release of juvenile sturgeon fish).
34	A.80 Noise	Operation of radio-electronic means and high-frequency devices. Electromagnetic radiation	Noise, vibration, electromagnetic radiation	Leading engineer, Electric navigation and communication Deparment	The Law of the Republic of Kazakhstan" "On Communication. Article 16. Confirmation of conformity of technical means of communication	Technical means of communication used on the unified telecommunications network of the Republic of Kazakhstan, radio electronic means and high-frequency devices that are a source of electromagnetic radiation, technical means of postal communication are subject to confirmation of compliance in accordance with the legislation of the Republic of Kazakhstan.	1. Possession of a Permit to use the radio frequency spectrum 2. Use of radio communication without the use of loud beeps.
35	A.74 Emissions to air	Welding works, metalworking	Air emissions	Workshops	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 183. Procedure for conducting industrial environmental control	An environmental assessment of the efficiency of the production process within the framework of industrial environmental control is carried out on the basis of measurements and (or) calculations of the level of emissions into the environment, harmful production factors, as well as the actual volume of consumption of natural, energy and other resources.	1. Accounting of hours of work of metal-working machines, welding equipment. 2. Conducting quarterly calculations of emissions.
36	A.81 Waste	Industrial waste (cinders of welding electrodes)	Soil contamination, waste disposal	Workshops	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 380. Environmental requirements in the field of management of certain types of waste and processes of their life cycle.	When handling certain types of waste, waste owners must ensure compliance with environmental, sanitary and epidemiological requirements, as well as those included in the list approved by the authorized body in the field of environmental protection, national standards in the field of management of certain types of waste.	Removal of industrial waste to the landfill under a contract

37	A.81 Waste	Waste batteries formation	Soil contamination, waste disposal	Garage	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 365. Environmental requirements in the field of municipal waste management, paragraph 6.	Hazardous components of municipal waste (electronic and electrical equipment, mercury-containing waste, batteries, accumulators and other hazardous components) should be collected separately and transferred to specialized enterprises for recovery.	Removal of used batteries for recycling under a contract
38	A.81 Waste	Industrial waste (paint and varnish containers)	Soil contamination, waste disposal	Repair and construction works Department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 380. Environmental requirements in the field of management of certain types of waste and processes of their life cycle.	When handling certain types of waste, waste owners must ensure compliance with environmental, sanitary and epidemiological requirements, as well as those included in the list approved by the authorized body in the field of environmental protection, national standards in the field of management of certain types of waste.	Removal of industrial waste to the landfill under a contract
39	A.74a Greenhouse gas emissions	Refueling equipment with fuel	Air emissions	Procurement Department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 277. Environmental Requirements for Onshore Supply Bases and Onshore Infrastructure Facilities	The areas of berths and supply bases should be planned in such a way that supply, maintenance and refueling operations are carried out in compliance with all requirements to ensure the safety of the environment and public health.	1. Accounting for the amount of injected fuel 2. Carrying out quarterly calculations of emissions by source. 3. Control and visual inspection during the refueling period.
40	A.43 Storage of goods Liquid products (not oil)	Depressurization of underground tanks and fuel leakage	Soil pollution	Procurement Department	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 238. Environmental requirements for the use of land	Individuals and legal entities when using land should not allow land pollution, littering the earth's surface, degradation and depletion of soil, and must ensure the removal and preservation of the fertile soil layer when necessary to prevent its irreversible loss.	1. Visual inspection. 2. Accounting for the amount of fuel. 3. Quarterly sampling of soil samples for the content of oil products in order to prevent the risks of depressurization of underground tanks

41	A.74a Greenhouse gas emissions	Greenhouse gas emissions from mobile sources	Air emissions	Port Mechanization Service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Chapter 9. ENVIRONMENTAL PERMITS, Article 106. General provisions	Standards for emissions from mobile sources of emissions of pollutants into the atmosphere are not established.	1.Installation of devices for additional cleaning of exhaust gases (Particulate filter) on mobile cranes and loaders. 2. Gradual transfer of cars to liquefied gas. 3. Carrying out periodic measurements of exhaust gases with a gas analyzer. 4. Adjustment of the carburetor when exceeding the norms in the exhaust gases of cars.
42	A.27 Ground movement	Operation of vehicles, small-scale mechanization, cranes	Litter, dust, noise, consumption of natural resources	Port Mechanization Service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 238. Environmental requirements for the use of land	Individuals and legal entities when using land should not allow land pollution, littering the earth's surface, degradation and depletion of soil, and must ensure the removal and preservation of the fertile soil layer when necessary to prevent its irreversible loss.	1. Conducting training for employees on compliance with environmental legislation. 2. Availability of container sites for waste collection. 3. The movement of equipment along the established routes. 4. Conducting an introductory briefing for port visitors with an explanation of the rules of conduct on the port territory.
43	A.74 Emissions to air	Technical maintenance of equipment. Welding works, metalworking	Air emissions	Port Mechanization Service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 120. General provisions on environmental impact permits, paragraph 1.	The presence of an environmental impact permit is mandatory for the construction and (or) operation of Category II facilities.	1. Keep track of the operating time of the equipment 2. Conduct a quarterly calculation of emissions 3. Monitor the health of the equipment

44	A.81 Waste	Industrial waste (metal shavings, cinders of welding electrodes)	Littering, waste disposal	Port Mechanization Service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 209. Environmental requirements for the protection of atmospheric air during storage, neutralization, burial and incineration of waste, paragraph 2.	Legal entities and individual entrepreneurs, whose waste products are sources of air pollution, are obliged, in accordance with the environmental legislation of the Republic of Kazakhstan, to ensure the timely removal of such waste to specialized places for their storage, neutralization, processing, utilization or disposal.	Removal of industrial waste to the landfill under a contract
45	A.81 Waste	Formation and storage of waste oils	Soil pollution	Port Mechanization Service	National standard of the RK. ST RK 3129-2018 Resource saving. Waste. Waste lubricating oils. Requirements for collection, storage, transportation, reception and processing. Clause 6.3.2	The transfer of used oils from collection points to specialized enterprises is carried out for further processing (regeneration). Waste preparation can be transferred to third-party enterprises for disposal.	1. Control of container tightness 2. Storage in a closed container on pallets / in an underground container for used oils. 3. Export for disposal under the contract.
46	A.81 Waste	Oily rags	Soil contamination, waste disposal	Port Mechanization Service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 209. Environmental requirements for the protection of atmospheric air during storage, neutralization, burial and incineration of waste, paragraph 2.	Legal entities and individual entrepreneurs, whose waste products are sources of air pollution, are obliged, in accordance with the environmental legislation of the Republic of Kazakhstan, to ensure the timely removal of such waste to specialized places for their storage, neutralization, processing, utilization or disposal.	Removal of industrial waste to the landfill under a contract

47	A.81 Waste	Storage of used batteries	Soil contamination, waste disposal	Port Mechanization Service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 365. Environmental requirements in the field of municipal waste management, paragraph 6.	Hazardous components of municipal waste (electronic and electrical equipment, mercury-containing waste, batteries, accumulators and other hazardous components) should be collected separately and transferred to specialized companies for recovery.	Export for processing under a contract. Control and accounting of storage in an equipped container for collecting used batteries before handing over for recycling.
48	A.81 Waste	Storage of used filters	Soil contamination, waste disposal	Port Mechanization Service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 365. Environmental requirements in the field of municipal waste management, paragraph 6.	Hazardous components of municipal waste (electronic and electrical equipment, mercury-containing waste, batteries, accumulators and other hazardous components) should be collected separately and transferred to specialized companies for recovery.	Removal of industrial waste to the landfill under a contract
49	A.54 Port industry: Reception, treatment and recycling of waste	Waste tire	Soil contamination, waste disposal	Port Mechanization Service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 333. Termination of waste status, paragraph 2.	Waste types that may lose their waste status in accordance with paragraph 1 of this article include waste plastics, polyethylene terephthalate packaging, waste paper (cardboard), used glass containers and cullet, scrap non-ferrous and ferrous metals, used tires and textile products, as well as other types of waste according to the list approved by the authorized body in the field of environmental protection.	1.Collection of used tires at the site of a hard surface. 2. Removal for processing and disposal under a contract
50	A.54 Port industry: Reception, treatment and recycling of waste	Metal scrup	Soil contamination, waste disposal	Port Mechanization Service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 333. Termination of waste status, paragraph 2.	Waste types that may lose their waste status in accordance with paragraph 1 of this article include waste plastics, polyethylene terephthalate packaging, waste paper (cardboard), used glass containers and cullet, scrap non-ferrous and ferrous metals, used tires and textile products, as well as other types of waste according to the list approved by the authorized body in the field of environmental protection.	Removal of scrap metal for processing under a contract

51	A.27 Ground movement	Operation of vehicles, small-scale mechanization, cranes. Spillage of oil products	Soil pollution	Port Mechanization Service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 188. Industrial environmental control service and persons responsible for industrial environmental control	The person responsible for the industrial environmental control is obliged to ensure the maintenance of industrial environmental control logs at the facility or individual work areas, in which employees must record the detected facts of violation of the requirements of the environmental legislation of the Republic of Kazakhstan, indicating the time frame for their elimination.	1.Visual inspection of equipment for leaks of fuels and lubricants, malfunctions before starting work. 2. Carrying out periodic technical inspection and repair. 3. Conducting internal control with the execution of an act in the event of environmental pollution.
52	A.81 Waste	Medical waste generation	Soil pollution	Medical point	Sanitary rules "Sanitary and epidemiological requirements for the collection, use, use, disposal, transportation, storage and disposal of production and consumption waste	Collection and temporary storage of production waste is carried out by individuals and legal entities during the operation of facilities, buildings, structures and other facilities, as a result of which production waste is generated, with subsequent export independently or by specialized entities by concluding appropriate agreements for further neutralization, burial, use or recycling.	Removal for disposal under a contract
53	A.31 Loading/unloading operations: Bulk Cargo (Including Grain)	Handling of dusty and bulk cargo (cement, grain, etc.)	Air emissions	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 189. Organization of internal audits, paragraph 1.	The operator of the facility takes measures for regular internal verification of compliance with the requirements of the environmental legislation of the Republic of Kazakhstan and the comparison of the results of industrial environmental control with the conditions of environmental and other permits.	1. Conducting internal control. 2. Sampling of atmospheric air. 3. Accounting for the amount of cargo being handled. 4. Conducting quarterly emissions calculations.
54	A.68 Environmental incidents	Damage to containers (big bags), cargo spills	Waste generation	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 189. Organization of internal audits, paragraph 1.	The operator of the facility takes measures for regular internal verification of compliance with the requirements of the environmental legislation of the Republic of Kazakhstan and the comparison of the results of industrial environmental control with the conditions of environmental and other permits.	1. Carrying out internal control over loading and unloading operations. 2. Development of an Action Plan (Instructions) for repacking cargo with damaged packaging (tare).
55	A.68 Environmental incidents	Contamination of the port water area / spillage of cargo on the	Water area pollution, waste generation	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-	The operator of the facility takes measures for regular internal verification of compliance with the requirements of the environmental legislation of the Republic of Kazakhstan and the comparison of the	1. Carrying out internal control over loading and unloading operations. 2. The use of a tarpaulin

		water surface			VI. Article 189. Organization of internal audits, paragraph 1.	results of industrial environmental control with the conditions of environmental and other permits.	between the ship and the berth to prevent cargo from entering the sea in accordance with working technological card.
56	A.74 Emissions to air	Transshipment of coke, coal. Coal dust pollution	Air emissions, waste generation	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 189. Organization of internal audits, paragraph 1.	The operator of the facility takes measures for regular internal verification of compliance with the requirements of the environmental legislation of the Republic of Kazakhstan and the comparison of the results of industrial environmental control with the conditions of environmental and other permits.	1. Carrying out internal control over loading and unloading operations. 2. Compliance with the requirements of the working flow chart. 3. Availability of permits for cargo transshipment.
57	A.29 Loading/unloading operations: Chemicals	Loading chemicals	Air emissions, waste generation, soil pollution	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 189. Organization of internal audits, paragraph 1.	The operator of the facility takes measures for regular internal verification of compliance with the requirements of the environmental legislation of the Republic of Kazakhstan and the comparison of the results of industrial environmental control with the conditions of environmental and other permits.	1. Carrying out internal control over loading and unloading operations. 2. Compliance with the requirements of the working flow chart. 3. Availability of permits for cargo transshipment.
58	A.30 Loading/unloading operations: Containers	Loading / unloading containers	Air emissions, soil pollution	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Strict observance of the Working flow chart "Containers of universal large-tonnage ISO standard of type 1A, 1C, 1E". 2. Purchase of reachstackers that meet Euro-5 standards. 3. Realization of reloading by electric gantry cranes.
59	A.32 Loading/unloading operations: General cargo	Transshipment of general cargo	Emissions to the atmosphere, water area pollution	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Coordination of the conditions for transshipment of goods before the start of work 2. Strict adherence to the working flow chart for cargo transshipment. 3. Control of cargo securing. 4.3. Reloading by electric gantry cranes.

60	A.35 Loading/unloading operations: Perishable Goods	Transhipment of perishable goods	Air emissions, soil pollution, waste generation	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Carrying out reloading by electric gantry cranes. 2. Strict observance of the working flow chart for cargo transshipment "Universal large-capacity containers of ISO standard type 1A, 1C, 1E". 3.Connection of refrigerated containers to the power supply.
61	A.37 Loading/unloading operations: Vehicles / Vending vehicles	Transhipment of vehicles, commercial vehicles.	Air emissions, soil pollution, waste generation	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Carrying out reloading by electric gantry cranes. 2. Strict observance of the working flow chart for the transshipment of cargo "Cars, minibuses".
62	A.33 Loading/unloading operations: Dangerous cargo / oil, gas, oil products	Oil transshipment	Pollution of the water area	Kaztransoil CJSC, Terminallex, Artis Overseas, etc.	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Strict adherence to the Working Process flow chart for the transshipment of oil and oil products cargo. 2. Ensuring a clear interaction between the parties shore-to-ship, in order to safely conduct cargo operations, by signing an agreed Plan of cargo operations. 3. Compliance with the Notification Scheme and the Oil Spill Response Plan in case of realized risk.

63	A.46 Port industry: Aggregate industry (sand, gravel, cement)	Repacking of dusty, bulk cargo.	Air emissions, soil pollution, waste generation	Loading and unloading complex	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Compliance with chemical repackaging requirements 2. Revision and updating of the risk map when handling bulk cargo.
64	A.81 Waste	Acceptance and delivery of goods, marking of goods. Industrial waste (containers of paintwork materials, etc.)	Soil pollution, waste generation	Cargo warehouse	Environmental Code of the Republic of Kazakhstan dated 02.01.2021 No. 400-VI. Article 352. Solid and slime-like industrial waste, the disposal of which is prohibited at landfills intended for the disposal of solid household waste	It is prohibited to place the following solid and sludge-like industrial waste at landfills intended for the disposal of solid household waste: paint and varnish industry - films of varnishes and enamels, wastes from equipment cleaning, containing zinc, chromium, solvents, oxidizing oils.	Removal of industrial waste to the landfill under a contract
65	A.45 Cargo storage: Vehicles	Storage of vehicles, commercial vehicles. Contamination of sites by leaks of oil products	Soil pollution	Cargo warehouse	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Strict observance of the working flow chart for the transshipment of cargo "Cars, minibuses". 2.Visual inspection of the cargo for leaks.
66	A.39 Cargo storage: Containers	Storage of containers	Soil pollution	Cargo warehouse	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Strict observance of the Working flow chart "Containers of universal large-tonnage ISO standard of type 1A, 1C, 1E". 2. Periodic visual inspection of the cargo

67	A.41 Cargo storage: General cargo	General cargo storage. Spillage, clogging with cargo residues	Soil pollution	Cargo warehouse	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Strict adherence to the working flow chart during cargo transshipment. 2. Periodic visual inspection of the cargo. 3. Development of an Action Plan (Instructions) for repacking cargo with damaged packaging (tare).
68	A.44 Cargo storage: Perishable goods	Storage of perishable goods. Generation of food waste	soil contamination, waste disposal	Cargo warehouse	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Compliance with storage conditions in warehouses, connection of containers to power supply. 2. Periodic inspection with inspection log. 3. Compliance with the Instructions for the processing of refrigerated containers at JSC "NC "Sea port of Aktau".
69	A.41 Cargo storage: General cargo	Storage of unclaimed cargo	Dust, waste disposal	Cargo warehouse	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to human life and (or) health that may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Periodic visual inspection of the cargo. 2. Sending notifications to consignees, to the customs authority.
70	A.42 Cargo storage: Dangerous cargo / oil, gas, oil products	Storage of goods: dangerous goods, oil, gas, oil products.	Emissions to the atmosphere, soil and water pollution	Cargo warehouse	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 13. Fundamental rights and obligations of subjects in the field of environmental protection	5. Legal entities and individual entrepreneurs carry out at their own expense the necessary measures for environmental protection, including the prevention of environmental pollution, degradation of the natural environment, causing environmental damage in any form and related threats to life and (or) health person who may arise as a result of their activities, as well as bear other obligations in the field of environmental protection established by this Code.	1. Strict adherence to the Working Process Flow Chart for the transshipment of oil and oil products cargo. 2. Ensuring a clear interaction between the parties shore-to-ship, in order to safely conduct cargo operations, by signing an agreed Plan of cargo operations. 3. Compliance with the

							Notification Scheme and the Oil Spill Response Plan in case of realized risk.
71	A.26 Shipping and navigation	Operation of ships in the port water area	Air emissions, fuel leaks	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 203. Monitoring of compliance with permissible emission standards, paragraph 1.	Monitoring of compliance with the standards of permissible emissions of a stationary source and (or) a set of stationary sources and their impact on the quality of atmospheric air is carried out in accordance with the requirements of this Code and the conditions established in the environmental permit.	1. Providing coastal power (electricity) to the vessels of the port fleet while staying at the berth. 2. Conducting quarterly calculations of emissions from ships of the port fleet (analysis in comparison with the previous period). 3. Ensuring the availability of sorbent materials in case of detection of contamination in the port water area.
72	A.82a Ballast water management	Ballast water management	Discharge of polluted ballast water from a vessel, fuel leakage, etc.	Navigation safety and fleet operation service	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 278. Environmental requirements for shipping	It is forbidden to use equipment and apparatus, as well as vessels that previously worked in other water basins, without conducting an environmental survey in order to avoid accidental introduction of flora and fauna objects into the Caspian Sea. Vessels should be equipped with equipment that prevents pollution of ship decks with oil products, discharge of polluted sewage into water bodies. Discharge from ships of oil, pollutants and wastewater containing them, untreated ballast water, food waste, household waste and all types of plastics into water bodies is prohibited.	1.Ensuring the reception by a specialized collector of liquid wastewater and garbage from ships without restrictions. 2. Accounting for the amount of accepted ship wastes.

73	A.69 Suppliers	Fuel supply	Air emissions	Fuel supplier under the contract	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 183. The procedure for conducting industrial environmental control, paragraph 2.	An environmental assessment of the efficiency of the production process within the framework of industrial environmental control is carried out on the basis of measurements and (or) calculations of the level of emissions into the environment, harmful production factors, as well as the actual volume of consumption of natural, energy and other resources.	1. Conducting quarterly calculations of emissions. 2. Analysis of data on emissions for the period. 3.Laboratory analysis of supplied fuel samples.
74	A.69 Suppliers	Fuel supply. Fuel leak	Air emissions	Fuel supplier under the contract	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 183. The procedure for conducting industrial environmental control, paragraph 2.	An environmental assessment of the efficiency of the production process within the framework of industrial environmental control is carried out on the basis of measurements and (or) calculations of the level of emissions into the environment, harmful production factors, as well as the actual volume of consumption of natural, energy and other resources.	To provide for the availability of relevant environmental protection requirements in the contract with the Supplier.
75	A.70 Logistic operators	Roll-up and roll-out of cars of JSC "Kaskor trans service", pollution of railway tracks with oil products, garbage	Air emissions, soil pollution	JSC "Kaskor trans service"	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 208. Environmental requirements for the protection of atmospheric air during the production and operation of transport and other mobile vehicles, paragraph 2.	Transport and other mobile vehicles, the emissions of which have a negative impact on the atmospheric air, are subject to regular checks (technical inspection) for their compliance with the requirements of the technical regulations of the Eurasian Economic Union in the manner determined by the legislation of the Republic of Kazakhstan.	1. Periodic visual inspection of the port territory, observation of emissions from diesel locomotives, fuel leaks. 2. Sending appropriate letters to the address of KaskorTransService JSC upon detection of contamination.
76	A.71 Construction contractors	Construction contractors. Construction works.	Air emissions, soil contamination	Port facilities and capital construction Department	Environmental Code of the Republic of Kazakhstan. Article 204. Environmental requirements in the production and operation of automobile and other vehicles	Legal entities operating motor vehicles and other vehicles that have a negative impact on the environment are obliged to comply with the permissible emission standards, take measures to reduce noise levels and other negative impact on the environment.	1. Availability of permits before starting work. 2. Visual control during the execution of work. 3. Conducting quarterly calculations for emissions.

77	A.73 Industry	Grain terminal activities	Air emissions	Grain terminal of Ak-Biday Terminal JSC	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 203. Monitoring of compliance with permissible emission standards	1. Monitoring of compliance with the standards of permissible emissions of a stationary source and (or) a set of stationary sources and their impact on the quality of atmospheric air is carried out in accordance with the requirements of this Code and the conditions established in the environmental permit.	1. Periodic visual inspection of the port territory, monitoring of emissions from the grain terminal. 2. Sending appropriate letters to Ak-Biday Terminal JSC upon detection of contamination.
78	A.73a Shipping companies	Shipping companies	Emissions to the atmosphere, water area pollution	Agency companies	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 278. Environmental requirements for shipping	2. All types of movements by water transport must be presented as part of the pre-project and project documentation. At the stage of detailed design and during the organization of work, a timetable for the movement of vessels by seasons should be determined and the routes of vessels should be indicated on cartographic materials. When choosing routes for movement, hydrometeorological conditions, including ice conditions, as well as periods and places of spawning and migration of valuable fish species, seal rookeries, and nesting of birds should be taken into account. 9. For tanker transportation of hydrocarbons and other hazardous substances in the Caspian Sea, tankers with a double hull are used.	1. Periodic visual inspection of the port territory, observation of emissions from ships. 2. Sending appropriate letters to agency companies when contamination is detected. 3. Putting into effect the Oil Spill Response Plan. 4. Unlimited reception of sub-service water, waste water and garbage from ships.
79	A.67 Emergencies	Oil loading operators, Loading oil products onto a tanker	Pollution of the water area	Kaztransoil CJSC, Terminallex, Artis Overseas, etc.	Environmental Code of the Republic of Kazakhstan dated 02.01.2021, No. 400-VI. Article 398. Environmental requirements for exploration and production at sea, inland water bodies and in the safety zone of the Republic of Kazakhstan	In the event of emergency oil spills at sea, inland water bodies and in the safety zone of the Republic of Kazakhstan, optimal methods of its elimination should be applied based on the analysis of the total environmental benefit.	Launch of the Oil Spill Response Plan.

The document was approved by the order of the President of JSC "National Company "Aktau Sea Commercial Port" dated September 29, No. 379-OD

ENVIRONMENTAL LAWS AND REGULATIONS

Vessels entering the port are subject to international conventions and regulations, such as:
• International Convention for the Prevention of Pollution from Ships (MARPOL73/78), London;
• International Code for the Carriage of Dangerous Goods by Sea (IC RID);
• Convention on the International Maritime Organization, Geneva;
• International Convention on Civil Liability for Oil Pollution Damage, Brussels;
• Framework Convention for the Protection of the Marine Environment of the Caspian Sea, Tehran;
• Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel.

Aktau port has all the necessary permits and licenses in accordance with environmental legislation to carry out its activities.
According to Emissions Permit No.: KZ41VCZ00869937, issued on 04/07/2021, compliance with environmental requirements includes the need to submit periodic reports to the Department of Ecology for the Mangistau region.

The key international convention relating to port activities includes commitments under the 2016 Paris Agreement to combat climate change. The Paris Agreement contributes to the achievement of the Sustainable Development Goals and provides a roadmap for actions to reduce emissions and build climate resilience. Along with this, the Paris Agreement provides for provisions on adaptation to climate change.

ENVIRONMENTAL PERFORMANCE INDICATORS

In Aktau port, to calculate the environmental efficiency of activities in the field of environmental protection, the regulatory document "Methodology for assessing the effectiveness of the environmental management system" (hereinafter - the Methodology) is used. This Methodology was developed in order to determine the possible limits of changes in the accepted performance indicators in the field of environmental protection.

No.	Activity rate	Reporting data for the years						
		2015	2016	2017	2018	2019	2020	2021
1	2	3	4	5	6	7	8	9
1	Air emissions of pollutants from stationary sources, t	3,225	2,042	5,222	5,617	6,79	11,48	5,9785
2	Waste water discharge, t	0	0	0	0	0	0	0
3	Production and consumption waste, tons (only those for processing and disposal)	403,264	326,15	209,232	260,108	166,808	143,083	211,685
4	Production and consumption waste, tons (only those for processing and disposal)	99,971	0	0	0	0	0	0
5	Expenses for liquidation of environmental consequences, incidents (crashes, rolling stock accidents, malfunctions of equipment, machinery, machines, etc.) including expenses for compensation for harm for environmental pollution, thousand tenge	0	0	0	0	0	0	0
6	Total expenses for liquidation of incidents with environmental consequences, thousand tenge	0	0	0	0	0	0	0
7	Number of implemented measures aimed at reducing emissions into the environment, units	1	1	2	1	1	1	1
8	The total number of unfulfilled and partially fulfilled requirements of the environmental legislation of the Republic of Kazakhstan and other requirements in the field of ecology, units	1	1	0	1	2	1	0
9	The number of fulfilled requirements of the environmental legislation of the Republic of Kazakhstan and other requirements in the field of ecology, units	10	10	11	10	9	10	11

Evaluation of the effectiveness of the environmental management system is an internal management process tool designed to provide the management of Aktau port with verified, reliable and confirmed information to determine whether, in particular, the environmental performance of Aktau port meets the set of criteria set by the management.

This Methodology establishes that the environmental management system is conditionally considered effective provided that environmental indicators (number of emissions, fines, expenses for eliminating environmental consequences in case of environmental pollution incidents) decrease for the current year by 5% compared to the average value of environmental indicators for the previous five-year conservation period.

Environmental performance indicator

Company	Year	Index				Environmental performance indicator (EPI)
		А	Б	В	Г	
ASCP	2015	0,16	0,00	0,22	0,00	0,38
ASCP	2016	0,22	0,00	0,19	0,00	0,42
ASCP	2017	0,90	0,00	0,45	0,00	1,34
ASCP	2018	0,38	0,00	0,13	0,00	0,51
ASCP	2019	0,29	0,00	0,25	0,00	0,54
ASCP	2020	0,59	0,00	0,30	0,00	0,89
ASCP	2021	0,18	0,00	0,52	0,00	0,70
EPI threshold value						**0,74**

Management performance indicator

Company	Year	Index			Environmental management indicator (EMI)
		Д	Е	Ж	
ASCP	2015	0,5	0,04	9,997	**10,537**
ASCP	2016	0,5	0,04	0	**0,54**
ASCP	2017	1	0	0	**1**
ASCP	2018	0,25	0,04	0	**0,29**
ASCP	2019	0,5	0,088	0	**0,588**
ASCP	2020	0,5	0,04	0	**0,54**
ASCP	2021	0,5	0	0	**0,5**

EPI threshold value					0,74
EMI threshold value					0,59
threshold values sum EPI+EMI					1,33
sum of current values EPI & EMI for 2021			0,70	0,5	1,20

The effectiveness of the environmental management system in 2021 is assessed as "effective", because the value of 1.20 is less than the threshold value of 1.33 by more than 5%.

Joint Stock Company "National Company "Aktau Sea Commercial Port"	Key Performance Indicator for Environmental Protection - 2021

No.	KPI	Target	January	February	March	April	May	June	İyul	August	September	October	November	December	Total
1	Spills (major >100 l) (ea)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Spills (moderate 20-100 l) (ea)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Spills (minor < 20 l) (ea)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Emissions from combustion exhaust of own equipment (CO2-tonne)	As low as possible	0,169			0,070			0,042			0,045			0,326
5	Emissions from own combustion exhaust of vessels (CO2-tonne)	3,08	0,123			0,096			0,03675			0,057			0,31275
6	Generation of non-hazardous solid waste (m3)	802 (full year)	30	20	30	40	40	20	20	20	30	20	30	20	320
7	Generation of hazardous solid waste (port area and own vessels-m3)	538,292 (full year)	34,028	0,419	0,004	12,236	11,24	4,526	10,104	2,004	20,944	18,154	11,739	6,914	132,312
8	Plastic waste (kg)	100% recyclable	0	5,8	0	22	0	17	0	0	5	11	16	3	79,8
9	Paper waste (kg)	100% recyclable	0	335,7	0	109	0	196	0	0	794	636	426	352	2848,7
10	Accidental spill of fuel or other hazardous substance from own vessels into the sea (major >100 l) (ea)	0	0	0	0	0	0	0	0	0	0	0	0	0	0

11	Accidental spill of fuel or other hazardous substance from own vessels into the sea (moderate 20-100 l) (ea)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Accidental spill of fuel or other hazardous substance from own vessels into the sea (minor < 20 l) (ea)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Collection of sewage water from vessels (m3)	100% of received requests	65,06	83,31	13,7	114,68	68,8	76,44	8,80	8,90	20,14	18,10	29,90	97,20	605,03
14	Collection of bilge water from vessels(m3)	100% of received requests	19,69	31,44	49,5	53,98	16	13,65	10	8,9	6,5	17,6	17,44	17,08	261,78
15	Collection of solid waste from vessels (m3)	100% of received requests	0,612	0,688	1,608	2,752	1,0824	0,316	0,716	0	0,38	0,188	0,712	0,748	9,8024
16	Accidental spill of fuel during bunkering (major >100 l) (ea)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Accidental spill of fuel during bunkering (moderate 20-100 l) (ea)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Accidental spill of fuel during bunkering (minor < 20 l) (ea)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Emission of noise from own equipment and vehicles, trains and vessels (dB)	≤ 80 dbl	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	
20	Consumption of energy (electricity) (thousand kW)	As low as possible	505,6	444,32	478,79	225,04	234,28	226,90	233,13	228,50	216,85	269,57	406,64	454,14	3923,8
21	Consumption of natural gas (thousand m3)	As low as possible	0	0	0	0	0	0	0	0	0	0	0	0	0

22	Consumption of water (thousand m3)	As low as possible	1,449	1,494	2,027	2,466	2,391	2,438	2,181	1,856	1,621	1,462	1,554	2,185	23,124

ENVIRONMENTAL PERFORMANCE INDICATORS

In the process of carrying out production activities, JSC "NC "ASCP" ensures compliance with environmental requirements in accordance with applicable law, introduces modern management models based on international standards (quality management systems in accordance with MS ISO 9001, environmental management ISO 14001, systems of environmental expertise of ports PERS), carries out activities aimed at the socio-economic development of the region, and is also actively working on preparing for EcoPorts certification to obtain the status of "Green Port".

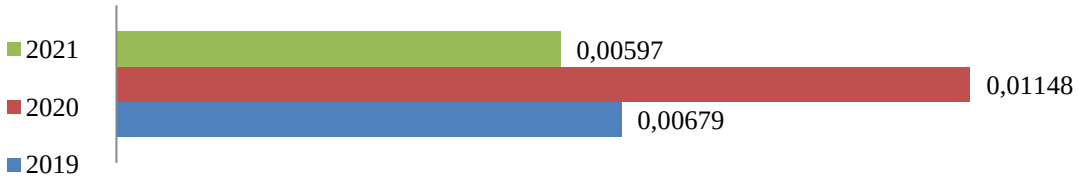
Minimization of the negative impact on the environment is achieved by the Company through rational consumption of natural resources, consistent reduction of emissions, discharges of pollutants, reduction in the volume of waste generation and their reuse, as well as the use of energy-saving technologies.

Emissions to the environment

The volume of emissions of pollutants into the atmosphere for the current reporting period is 5.98 tons, with the permitted limit of 56.58 tons. The actual volume of emissions for the same period last year is 11.48 tons. Compared to last year, the reduction in pollutant emissions is 1.9 times.

The decrease in emissions of pollutants is associated with a decrease in the volumes of handling of dusty and bulk cargoes, in particular, handling of coke in bulk, accompanied by dust emissions.

Dynamics of emissions into the environment in the period from 2019 to 2021, thousand tons



Environmental payments from stationary sources

The planned environmental payments from stationary facilities for the reporting period amount to 1930.85 thousand tenge, the actual payment is 177.31 thousand tenge. For the reporting period of 2020, the actual payment of environmental payments amounted to 286.7 thousand tenge.

The decrease in environmental payments compared to the same period last year is 38% less, this is due to a decrease in emissions from the handling of bulk, bulk cargo (bulk coke).

Environmental payments from mobile sources

Due to the absence of emission standards from mobile sources, payments are made in accordance with the requirements of Article 495 of the Code of the Republic of Kazakhstan "On taxes and other obligatory payments to the budget" - according to the amount of fuel actually used.

For 12 months of 2021, the payment for emissions from mobile sources amounted to 1,059.92 thousand tenge, and in 2020 - 666.46 thousand tenge.

At the same time, the increase in the amount of the fee is 59% compared to the same period in 2020.

The increase in emission charges is due to an increase in the volume of cargo transshipment (containers, cargo in big bags, scrap metal, etc.) and the corresponding fuel consumption for handling equipment (gasoline consumption increased by 36.68 tons, diesel fuel by 97.5 tons compared to the same period last year).

Excess payments

During the reporting period, no excess payments were revealed.

Dynamics of environmental payments in the period from 2019 to 2021, million tenge

Greenhouse gas emissions

For 12 months of 2021, greenhouse gas emissions from stationary facilities amounted to 0.639 tons, and in 2020 they amounted to 0.631 tons. Emissions are at the same level as last year.

Calculation of greenhouse gas emissions from mobile sources is not carried out. Payment for emissions is carried out according to the consumption of the actual volume of fuel.

Dynamics of greenhouse gas emissions into the atmosphere from stationary installations in the period from 2019 to 2021, thousand tons

Environmental requirements for emissions of pollutants from motor vehicles running on gasoline engines, for the content of carbon oxide and hydrocarbons, include compliance with the technical standards for emissions of harmful substances into the atmosphere established by the state standard of the Republic of Kazakhstan GOST 17.2.2.03-87 "Norms and methods for measuring the content of oxide carbon and hydrocarbons in the exhaust gases of vehicles with gasoline engines.

According to the requirements of the standard, measures to control the content of carbon monoxide and hydrocarbons for vehicles with gasoline engines should be carried out:

1) during random checks of cars leaving the line;

2) after maintenance;

3) after repair;

4) after adjusting units, assemblies and systems that affect the change in the content of normalized components in the exhaust gases.

When the established standards for emissions of pollutants into the atmosphere are exceeded, the causes are established and measures are developed to eliminate excess emissions.

In accordance with the requirements of the standard, a Schedule for measuring exhaust gases on vehicles running on gasoline engines is being developed.

Measurements are made by an official of the auto garage of the port mechanization service of NC ASCP JSC, who has undergone special training and has certificates confirming his qualifications.
The functions of this person are as follows:
1) measurements for CO and CH;
2) when the established technical standards are exceeded, the adjustment of units, assemblies, systems that affect the content of emissions;
3) carrying out repeated measurements;
4) documenting the results of measurements before adjustment and after adjustment in the “Logbook of the results of vehicle checks for carbon monoxide and hydrocarbons”.

For measurements in Aktau port, the gas analyzer "Infrakar-5M2" is used, (Certificate of verification No. Bl09--4368191 dated 17.03.2021, Mangistau branch of JSC "NaC Ex).

The process of measuring exhaust gases for the content of CO and CH on the gas analyzer

Мангистауский Филиал Акционерного Общества "НаЦЭкС"
(наименование подразделения государственной метрологической службы или метрологической службы юридического лица)
KZ.P.13.0242 от 04.12.2018 г.
(номер аттестата аккредитации)

KZ.P.13.0242

СЕРТИФИКАТ О ПОВЕРКЕ № Bl09-4368191

Газоанализатор
наименование средства измерений (эталона)

Тип, обозначение: Инфракар-5М2 заводской № 01

от 0 до 5 %
(диапазон измерений средства измерений)

Изготовитель: ООО "Альфа-динамика", Россия, г. Москва

Дата изготовления: 2016 год

Пользователь: АО "Национальная компания "АММТП"

Поверка проведена в соответствии: (наименование и адрес)

KZ.04.02.00775-2004 ВЕКМ.413311.004 ДЛ Газоанализатор Инфракар М. Методика поверки
(обозначение и наименование методики поверки)

с использованием следующих средств поверки: ПГС, БАМ, ВИТ-2,

секундомер
(обозначение эталона и вспомогательного оборудования, использованного при поверке)

На основании результатов поверки средство измерений (эталон) признано годным и допущено к применению по классу +/- 0,06 %, разряду -

с учетом неопределенности измерений -

Дата поверки " 17 " Марта 2021 г. Действителен до " 17 " Марта 2022 г.

Руководитель отдела (лаборатории) подпись Адылханова У.М. инициалы, фамилия

Оттиск поверительного клейма

Поверитель подпись Адылханова У.М. инициалы, фамилия

СЛ годовые : 4368191

ДКП: НН. ВА. Bl. Bl

4368191 Bl 21

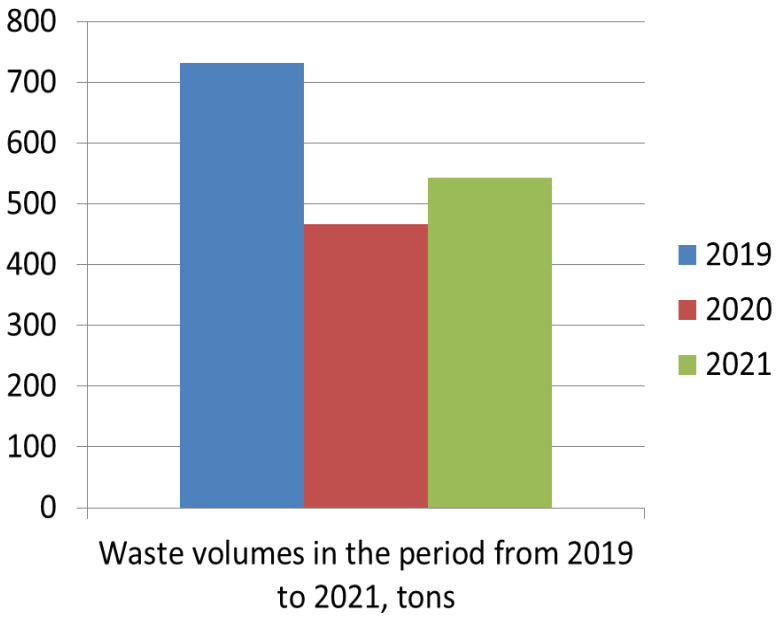
Waste management

Aktau Port is committed to minimizing the impact of ship waste on the environment. All ships calling at Aktau port must pay general dues (port dues), regardless of whether they deliver waste or not. In accordance with this requirement, this contributes to the prevention of pollution of the sea and port waters from ships. This service for receiving waste without volume limits at the port is available around the clock upon request.

Aktau Port owns 2 sewage and garbage collection vessels and provides round-the-clock reception of liquid and solid waste from vessels in the port water area. Oily wastes received and generated in the port are transferred for disposal to a specialized company under a contract. Household and fecal water is pumped into the centralized sewerage.

Solid waste is sorted in accordance with the current legislation and the requirements of international standards in accordance with the Waste Management Instructions. Solid waste generated at the port and accepted from ships is separated into appropriate waste containers and removed for processing, disposal or disposal at a landfill in accordance with the concluded agreements.

During the reporting period, the volume of consumption and production waste amounted to 542.32 tons, for the same period last year it amounted to 467.09 tons. The increase in the volume of waste is 75.23 tons compared to the same period last year.



The increase in the volume of waste for the reporting period compared to the same reporting period in 2020 is due to:
1) an increase in the number of ship calls and handling by 96 ships more than in 2020;

2) the formation of decommissioned scrap metal based on the results of the inventory;
3) removal of quarantine restrictions and ensuring the activities of all port personnel and companies operating in the port area.

In total, during the reporting period, 47.314 tons of plastic, waste paper, defective electronic equipment, used oil, used tires and scrap metal in the amount of 47.314 tons in the amount of 2914.853 thousand tenge were transferred to third-party organizations for recycling under concluded agreements.

Environmental protection			
		2020	**2021**
The amount of exported production and consumption waste			
Solid household waste	kg	62500	80000
Industrial waste	kg	79055	71850
Medical waste	kg	46	48
Wood waste	kg	48650	13000
Defective electronic equipment	kg	1482	1826
Paper	kg	1692,8	2000,7
Cardboard	kg	934,6	848
Plastic	kg	260,8	79,8
Number of instrumental measurements of atmospheric air, sea water and soil			
Water sampling	number of samples	54	64
Air sampling		20	24
Soil sampling		12	12
Amount of exported oil-bearing bilge waters			
Total	cubic meters	306,03	330
Amount of accepted waste from ships			
Dry garbage	tons	3,453	4,947
Food waste	tons	0,939	2,4506
Rag	tons	0,459	1,299
Emissions of pollutants into the atmosphere			
Stationary pollution sources	tons	11,48	5,98
Payment for emissions into the environmenty			
Stationary pollution sources	tenge	286 699	177 310
Mobile pollution sources	tenge	666 465	1 059 921

The Company does not discharge pollutants.

Water consumption

The Aktau Port is aware of the importance of caring for natural resources and strives for their rational use. In the reporting year, water consumption decreased by 5,282 thousand cubic meters compared to the level of 2020.

Dynamics of water consumption in the period from 2019 to 2021, thousand m3

Conservation costs

For 2021, according to the plan of environmental measures, activities for the total amount of 21,941 thousand tenge are planned for JSC NC ASCP.

The structure of costs for environmental protection measures is presented as follows:

65% - to conclude contracts with third-party specialized organizations for the export and disposal of production and consumption waste;

5% - to conclude contracts with third-party specialized organizations for conducting control measurements of the degree of environmental pollution (soil, water, atmosphere);

2% - to train those responsible for environmental protection;

2% - environmental insurance;

26% - for landscaping and landscaping.

Dynamics of costs for environmental protection measures in the period from 2019 to 2021, million tenge

Management of environmental aspects

In order to assess activities that have an impact on the environment, environmental monitoring is carried out on a quarterly basis: monthly samples of sea water are taken for the content of oil products and atmospheric air is analyzed, samples are taken quarterly for the study of sea water for 18 ingredients, soil samples for oil content, environmental aspects are assessed in accordance with established requirements.

Sampling of sea water in the water area of Aktau Port

Sampling of sea water for the content of oil products is carried out once a month at the established 5 points:

- **Oil berths Nos. 4, 5, 9 and 10;**
- **Ferry terminal No. 8;**
- **Dry cargo berth No. 1;**
- **Berth No. 12.**

Atmospheric air sampling at a dry cargo berth

During the transshipment of grain, measurements and laboratory analysis of the content of grain dust in the atmospheric air are carried out at dry cargo berths No. 1 and No. 2.

Measurements are carried out by an accredited laboratory on a contractual basis. The sampling frequency is monthly.

The analysis of soil samples for the content of oil products was taken on the basis of the recommendations of the international company DP World, as a preventive measure in order to promptly respond to the risk of depressurization of underground tanks with fuel and lubricants and minimize possible environmental damage.

DOCUMENTED RESPONSIBILITIES AND RESOURCES RELATED TO ENVIRONMENTAL ASPECTS

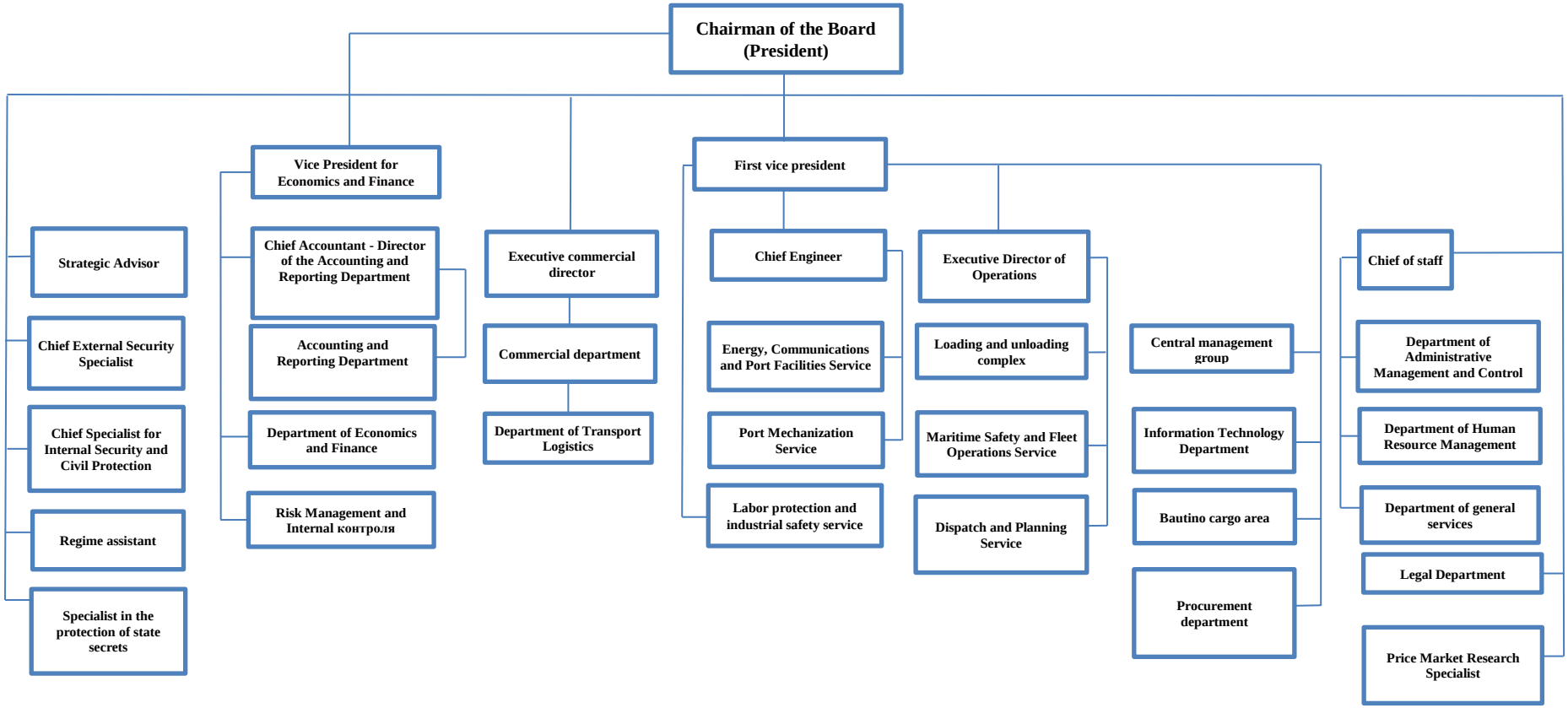
		Environmental Responsibilities of Key Personnel			
	Area	Name, Surname	Job Title	Department	Responsibilities
1	Port President/CEO	Abay Turikpenbayev	Chairman of the Management Board (President)		In charge of the overall operation of the port and co-ordinates the various parties in planned execution of their duties in the port. The Port President reports directly to the Board of Directors of the Company
2	Port Operations (Civil Engineering, Port Facilities and Dredging)	Evgeniy Sushkov	Head of Department	Energy, Communications and Port Facilities Service	Monitoring of water depths, maintenance and capital dredging of the Aktau port water area
3	Port Operations (Civil Engineering, Port Facilities and Dredging)	Zhanat Nukibayev	Head of Department	HSE Department	As HOD HSE Department ensures the control of environmental aspects related to dredging
4	Port Operations (Navigation and Dispatch Service)	Vadim Novikov	Chief dispatcher	Dispatch and scheduling service	Organizes the navigation of ships in the water area of Aktau port and supervises compliance with the requirements of navigation

5	Port Operations (Port fleet)	Alexey Konovalov	Acting Chief Manager	Service of safety of navigation and operation of the port fleet	Ensures that the vessels of the port fleet comply with all national / international regulations. Providing all vessels with environmental services (waste and bilge water collection)
6	Cargo Handling Operations (General Cargo Terminals)	Baurjan Utepov	Head of General Cargo Terminal	General Cargo Terminal	Ensures the prevention of negative impacts of ecological aspects , which could be caused during the port operation
7	Cargo Handling Operations (General Cargo Terminals)	Zhanat Nukibayev	Head of Department	HSE Department	As HOD HSE Department ensures the control of environmental aspects related to cargo operational processes
8	Website management - ecological matters	Gaziza Yerzhanova	Leading Environmental Protection Specialist	HSE Department	Preparation of ecological report for posting on the site
9	Strategic Planning - ecological matters	Gaziza Yerzhanova	Leading Environmental Protection Specialist	HSE Department	Preparation of data for the budget for environmental protection activities
10	Procurement	Denis Denisov	Chief Manager	Procurement Department	Ensures that the purchased services and goods comply with environmental requirements in accordance with the technical specification provided by the environmentalist

11	Licensing/Permits	Elmira Urazalieva	Head of Department	Legal Department	In charge of monitoring/controlling any changes in the national and international legislation and timely providing with relevant information
12	Quality control	Galiya Shynjyrova	Chief Manager	Integrated management system	Keeping management systems in operation: ISO 9001: 2015, ISO 14001: 2015, ISO 45001: 2018
13	On site Contractor Management	Elmira Urazalieva	Head of Department/Начальник отдела	Legal Department	Ensures that environmental requirements are taken into account in agreements / contracts for core activities
		Roman Dzakhoev	Head of Department	Procurement Department	Ensures that environmental requirements are taken into account in standard contracts for goods, works, services
		Gaziza Yerzhanova	Leading Environmental Protection Specialist	HSE Department	Monitoring of compliance with ecological requirements
14	Emergency planning	Maratjan Akimbayev	Civil Defense and Emergency Situations Specialist	Personnel directly subordinate to the Port President	Conducting emergency response processes
15	Waste Management	Gaziza Yerzhanova	Leading Environmental Protection Specialist	HSE Department	Ensures the organization of the correct sorting of waste, the transfer of recyclable materials for processing, keeps records of the generation and disposal of waste, registration of consignment notes

		Denis Denisov	Chief Manager	Procurement	Provides timely procurement of waste management services in accordance with the requirements of the technical specification
16	Sales & Marketing	Kairat Kaliolla	Chief Manager	Marketing and Sales Department	Providing information on cargo of environmental interest to the port
17	Staff Training	Zhanat Nukibayev	Head of Department	HSE Department	Control and arrangement of ecological inductions/awareness trainings
		Aiman Utegulova	Chief Manager	HR Department	Budgeting external trainings
		Ahmet Sagyndykov	Head of the training center	The training center	Arrangement of internal trainings
18	Environmental document management	Gaziza Yerzhanova	Leading Environmental Protection Specialist	HSE Department	Ensures that existing documentation is in accordance with national and international legislation/standards
19	Environmental Data Management	Gaziza Yerzhanova	Leading Environmental Protection Specialist	HSE Department	In charge of updating of all required data
20	Ecological Monitoring	Gaziza Yerzhanova	Leading Environmental Protection Specialist	HSE Department	In charge of monitoring and control of ecological issues and matters (timely arrangement of analyses; daily observation)
21	Carbon footprint monitoring from Engineering and Technical activities	Sergey Malafeev	Head of Port Mechanization Service	Engineering	Ensuring adequate traffic management in the port area

ORGANIZATION CHART



BEST PRACTICS

The content of Chapter 1.6 “Best Practices” in this PERS report will be reviewed and updated every two years or when any content change is required.
This chapter details three examples of environmental projects undertaken by Aktau Port to improve the environment.
All records and supporting documents of the PERS report are maintained by Aktau Port Environmental Lead.

Aktau Port	Kazakhstan
The contact person	Gaziza Yerzhanova
Position:	Leading Environmental Specialist
Email:	erzhanova_g@aktauport.kz
Environmental issue: Garbage, port waste	
ESPO 5 E alignment: encourage, engage	
Cleaning day on the Caspian coast on October 1 on Aktau Port Day	

October 1 - Aktau Port Day. In the context of easing restrictive measures, the staff of Aktau port celebrated this event by combining it with an environmental action.

In support of measures aimed at protecting the environment, port workers have cleaned up the sea coast in the suburbs of Aktau. Dozens of bags of garbage were taken out and disposed of at a specialized landfill. And small sports competitions as part of field team building once again showed the cohesion and teamwork of the team.

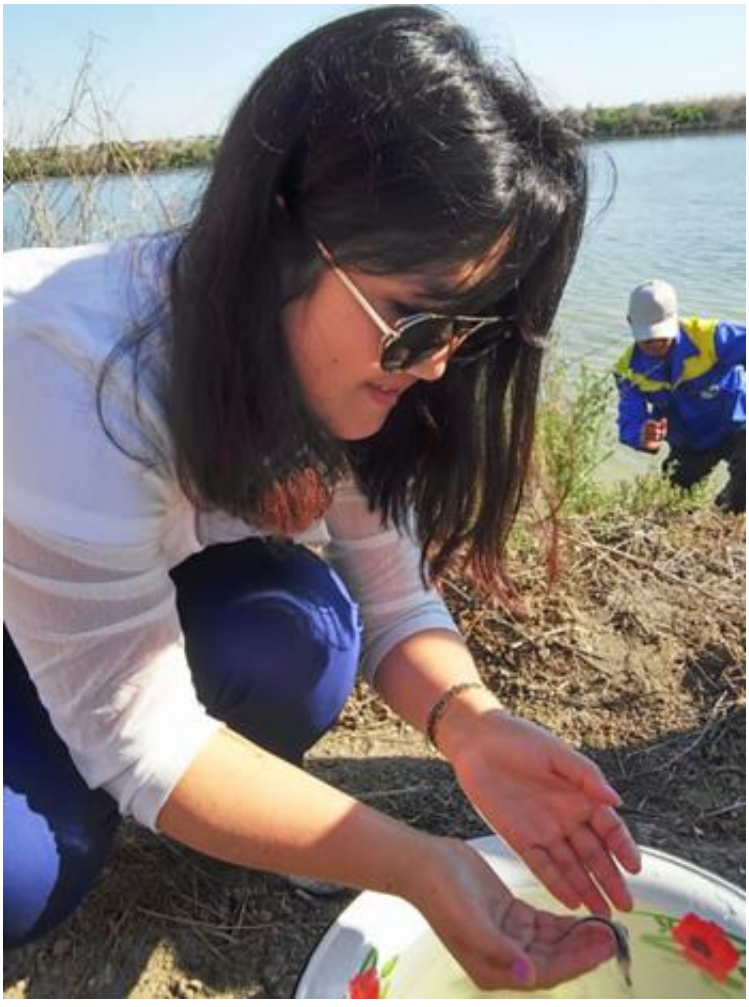
All garbage was collected and taken to the landfill of the host organization under the contract.

https://www.portaktau.kz/ru/1-oktyabrya-den-porta-aktau/

Aktau Port	Kazakhstan
The contact person	Gaziza Yerzhanova
Position:	Leading Environmental Specialist
Email:	erzhanova_g@aktauport.kz
Environmental Issue: Habitat/Ecosystem Loss (Water)	
ESPO 5 E alignment: encourage, engage	
Restoration of the Caspian ecosystem after dredging	

82,939 sturgeons were raised with the help of Aktau port. In 2016, Aktau port, as part of an environmental project to restore the fauna of the Caspian basin, signed an agreement with the State Enterprise "Ural-Atyrau Sturgeon Fish Factory" of the Committee for Forestry and Wildlife of the Ministry of Agriculture of the Republic of Kazakhstan for services for growing sturgeon fish. In July 2017, the first batch of fry grown with the help of Aktau port was released into the Ural River. 82,939 sturgeons, with the light hand of a specialist - Aktau port ecologist Akzhan Mukasheva, left to plow the waters of the Urals, and then the Caspian. The same number of fish is planned to be bred by 2018.

This environmental project was implemented as part of the restoration of the Caspian ecosystem after dredging carried out under the port expansion project in the northern direction.



Статья взята в сайта www.portaktau.kz

Aktau Port	Kazakhstan
The contact person	Gaziza Yerzhanova
Position:	Leading Environmental Specialist
Email:	erzhanova_g@aktauport.kz
Aktau Port	Kazakhstan
Environmental issue: Relations with the local community	
ESPO 5 E alignment: encourage, engage	

Support for local farmers

Recent years have been difficult for horse and cattle farms in Mangistau Oblast. Abnormal heat and lack of precipitation caused a significant reduction in vegetation in the grazing areas. The lack of fodder and hay had a significant impact on livestock breeders. In order to support farms, Aktau port exports all cut grass, tree branches from the port territory to peasant farms, as well as to port workers engaged in livestock breeding on a gratuitous basis.