



NATIONAL PUBLIC STANDARD
**ARCTIC REGION
ENVIRONMENTAL SAFETY**

NATIONAL ARCTIC REGION ENVIRONMENTAL SAFETY PUBLIC STANDARD



Moscow
2017

Designed by Public Commission on Ecology at Association of Polar Explorers
Global Non-governmental Organization (ASPOL) chaired by O.M. Budargin,
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Acknowledgements:

V.A. Chuprova, A.V. Mitko, D.S. Drozdova, E.N. Kruglikova., M.A. Kholmyanskiy, A.A. Shavykina,
Thank you for your input, amendments and essential critical feedback.

Original document layout by
System Consulting LLC.
Tel. +7 495 662 97 49
www.s-kon.ru, www.energy.s-kon.ru

Edition of 200 copies
Printed at Liberty Plus
Publishing Company
Tel. +7 495 972 87 68

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1. Preamble

1.1. Definition of the Russian Arctic Region

1.1.1 Arctic Region of the Russian Federation refers to a part of the Arctic, which includes wholly or partly the territories of Republic of Sakha (Yakutia), Murmansk and Archangelsk Regions, Krasnoyarsk, Nenets, the Yamal-Nenets and the Chukotsky Autonomny Okrug agreed upon the State Commission of USSR Council of Ministers on Arctic Region dd. 22 April 1989. Arctic Region also includes lands and islands, indicated in the Decisions by Presidium of Central Executive Committee of USSR "Declaration of belonging of lands and islands located in the Arctic Ocean to USSR" dd. 15 April 1926 and adjacent to these territories, lands and islands inner marine waters, territorial sea, exclusive economic zone and continental shelf of the Russian Federation, within which Russia has sovereign rights and jurisdiction under international law. The Russian Arctic with marine economic zone and continental shelf occupies 30% of the country's territory. Arctic Region provides 12-15% of GDP of the Russian Federation and about a quarter of export. 43% of Arctic Region of the planet comes from Russian sector. This is nearly 9 million square kilometers. Over 2,5 million people live here, which is 2% of the country's population and about 40% population of the Arctic.

1.1.2. National Standard applies only to enterprises and organizations that run their own economic activities in Arctic Region of the Russian Federation. When the activity is beyond Arctic Region, Standard regulations are only applicable to enterprise located in the Arctic.

1.1.3. Since this Standard has distinct territorial nature, in case any newly adopted standards are subject to changes in territories being a part Arctic Region of the Russian Federation, the organization's affiliation to the Standard may be reconsidered.

1.2. The reasons behind Standard.

1.2.1. *The strategic role of Arctic Region in Russian economics safety and defense capacity.*

Today there are several groups of interests inherent to both governments and large companies operating in Arctic Region.

Economic interests include:

- High capacity hydrocarbon deposits that are technologically available now and capable of fulfilling the world's economy needs for a hundred years ahead on the proven reserves alone.
- Potential hydrocarbon future deposits – methane hydrates not available at the moment due to the high cost of mining and processing, what makes the final product economically uncompetitive. However, in case of conventional reserves exhaustion and hydrocarbons cost growth, methane hydrates will be competitive even with modern technologies use.

- Continental deposits of metallic and non-metallic fossils, which technological availability increases with the exhaustion of analogues in other climatic zones, changes in mining methods and climate change. Moreover, Arctic Region includes open mineral supplies that can now be considered as alternative raw material for nonferrous metals, alloys, new ceramic material.
- Large stocks of freshwater.
- Power generation from renewable sources – wind energy, energy of the tide, oceans' biomass;
- Traditional international zones of fishing recourses, as new marine bio-resources, emerging on the market due to (a) decreasing of traditional recourses, (b) development of the refining technologies of the non-traditional raw material which result in high-quality protein products;
- Possibility of the new safe transport schemes, such as “Northern Sea Route” which relevance is defined not only by reducing delivery distance from Asia to Europe, but also by safety in terms of piracy and terrorism, unlike Southern transport schemes, as well as by remoteness from dangerous areas in terms of military conflicts.

However, these advantages are partly leveled out by:

- climatic conditions
- natural systems vulnerability
- insufficient knowledge in functioning features of the Arctic natural resources in environment as well as global and regional climate change conditions.
- logical risks, generally represented by the late delivery due to ice situation, low temperatures that prove dangerous for some goods;
- risks of the ice-related emergences that demand special requirements to the constructions of ships, or to wiring;
- long distances between emergency and rescue centers, that results in extra costs for ship and cargo insurance.

Nevertheless, all these risks can be substantially reduced during the development of emergency and rescue infrastructure, ship wiring and storage technologies.

Military-strategic interests include:

- protection of the social and economic interests during the mining of hydrocarbon resources and raw materials;
- protection of the national fishing vessels on the free territories for

- international fishing in Arctic Region;
- protection of the territorial waters and marine territories from poaching and unauthorized access across 200 miles of Russian Arctic zone;
- deployment of strategic missiles as well as air defense and anti-submarine warfare components in Arctic Region and on sea-based facilities as most desirable solution both in terms of approach time and secrecy;
- arranging logistically fast transfer of equipment and manpower through the country's territory;
- deployment of non-nuclear defense equipment and rapid reaction force.

Ecological interests primarily arise from the fact that Arctic Region is Northern hemisphere's pollution collector. Global water and atmosphere transition of pollution from low latitudes in the context of climate change leads to the collection of polluting substances in different components of Arctic Region environment and to reduce in its resilience to external shocks. Which, in turn, leads to exhaustion of biological resources, ecosystems sustainability on different levels, deterioration of the environment quality and to considerable constraints to ensuring the quality of life within Arctic native peoples, or the population engaged in natural resource extraction in Arctic Region, and ultimately – reduce in the efficiency of economic activities. Moreover, development of knowledge in Arctic ecology gives extra possibilities for protection of national interests in international courts, during cases when both countries and companies are charged with infliction of environmental harm.

Ecological factors specific to Arctic Region are:

- global climate changes decreasing Arctic ecosystems' sustainability to external impacts;
- global and regional atmosphere pollution, resulting in global transition of major pollution "waves" to the Arctic;
- decrease in snow cover albedo;
- vulnerability of the Arctic environmental complexes and its dependence on global environmental changes;
- natural and technological transformation of geochemical background and a break in natural chemical elements biogeochemical cycles;
- damage caused and accumulated impact as a result of economic or another activity which can lead to climate destabilization, geochemical, cryolithological and environmental processes across large distances of Northern hemisphere;
- low potential and speed of self-cleaning and remediation of environmental compartments, including degradation of natural waters, soils, natural

- vegetation cover, biota in general;
- anthropogenic and natural infestation of new biological species, which can significantly violate biological diversity and ecosystems sustainability in general;
- specific environmental conditions requiring special, more energy-consuming technologies;
- industrial negative impact on flora and fauna of Arctic Region excluding possible ecological adaptation to new conditions;
- high value of biological resources and freshwater resources, which are key strategic reserves of freshwater on the planet;
- non-integrated use of natural resources and utilization of industrial waste;
- leakage of the extracted hydrocarbons and other emissions.

1.2.2. *International interest in Arctic Region.*

In the modern world there has been a continuous increase in international interest in the Arctic which is reflected in following:

- increase in the number of studies, including explorational, geophysical, hydrological, oceanological, climatic, biological, ecological;
- increase in the number of inter-State disagreements and applications to international authorities concerning the question of owning the disputed territories of maritime shelf;
- increase in economic interest from the countries without direct access to the Arctic and arguments over ocean status and the Arctic territories;
- global collaborative research of 63 countries, international program “International Polar Year” held from March 1, 2007 to March 1 2009 (IPY 2007/08)

Burst of activity among members of Arctic Region development process was possible due to several reasons; firstly, new technological possibilities of developing traditional types of resources and new types of resources, second in order of importance is the fact that resources (especially biological resources) at lower latitudes have been partially or completely exhausted, thirdly, the territory of the ocean not used before due to permanent ice cover now becomes available for exploitation because of the global warming, and, finally, nowadays there is no international document that would define standards of activities that provides environmental safety of Arctic Region.

1.2.3. *Activities of international organizations for the Protection of Arctic Region.*

International organizations activities in Arctic Region Protection are reflected in the following international documents resulted from continuous research and practices in Arctic Region environmental safety:

- Protocol regarding changes of International Convention on Civil Liability for Oil Pollution Damage, 1969 and changes of International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (last revised in 1992);
- International Convention on Prevention of Pollution from Ships MARPOL 73/78;
- Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources (1976);
- United Nations Convention on the Naval Law (1982);
- International Convention on Oil Pollution Preparedness, Response and Cooperation (1990);
- United Nations Convention on the Naval Law;
- Cooperative Strategy for 21st Century Seapower. October 2007;
- Documents of the Arctic Council, e.g. recommendations on issues related to the oil spills;
- UN Documents on the Rights of Native Peoples.

These are the key documents that directly and specifically specify the national interests of States and methods for its advocacy. Apart from the above, there are over a hundred documents that reflect interests of the Arctic States and claims of non-Arctic States to be represented in Arctic Region. Russia, being one of the Arctic States, and owning the world's largest areas of the Arctic, is bound to have a fundamental national document which would define the standards of environmental-friendly activities in Arctic Region, since without environmental safety there is no economic activity, which serves as the basis for country's social development.

1.3 Regulatory reasons behind the Standard

1.3.1 *Shortcomings of the current regulatory framework*

The main reason for the need of this Standard is that the current regulatory framework does not and fundamentally cannot reflect all aspects of the environmental management issues in the Arctic zone. This is not due to regulatory framework's flaws, but due to a great number of aspects that cannot be embedded in the law. There is not always a need to strictly control the activities, to reduce risks of environmental disasters - it is often enough to be guided by certain principles and regulatory framework's consistency. Furthermore, new principles and new risks will arise followed by an increase in the intensive use of Arctic Zone. Regulatory

framework is unable to respond quickly to such changes, in this case, the standard, that includes the basic principles of environmental management and environmental security, may at least ensure socially acceptable activities in Arctic Region, if not fully replace the law.

1.3.2 Specific problems of the regulatory framework

In order to establish a set standards for Arctic zone activities we need to finalize and formalize principles of the rational and efficient use of natural resources in the Arctic on the national level, excluding "Southern" technologies direct transfer without regional adaptation and approbation. In addition, the industrial approach to natural resources use in Arctic Region should be replaced, as obsolete at this stage of development, since at the current division of labour it is impossible to solve all the problems of environmental safety within one single industry, let alone within one single enterprise. Primarily standardization should relate to the existing regulatory framework, which does not correspond to the document "Basic Principles of Russian State Policy the Arctic Region before 2020 and beyond ". Thus, the following regulatory framework issues are to be resolved as a part of standardization process:

- multiplicity and narrowness of regulations, standards governing environmental issues of different trends, including ones that spread to Arctic zone of the Russian Federation, but do not take into account its natural features;
- lack of accounting of international organizations' environment protection initiatives in many industrial acts;
- lack of a mechanism for generating new knowledge about the structural and functional organization of the Arctic ecosystems, sustainability mechanisms and for integrating them into the existing legal acts, which have a regulatory nature for certain types of activities;
- lack of requirements on regional adaptation and extraction technologies testing and natural resources processing in Arctic Region;
- lack of accounting mechanism for significant differences across Russian Arctic in all its extremely high diversity of landscapes and climatic conditions;
- lack of national basic documents as the basis for the formation of a highly specialized, sectoral regulations which have a territorial binding for the industries involved in the use of natural resources, and form their own regulatory framework;
- approaches for allowable anthropogenic impact and Arctic ecosystems load are not developed;
- environmental impact expertise and assessment does not cover all proposed economic projects in Russian Arctic zone;
- special climatic conditions is not considered as a part of technical regulations

for products that can be produced or consumed in Russian Arctic zone
Based on the foregoing, the National public environmental Arctic safety standard shall:

- exclude narrow or industrial approach;
- become the basic document for regional regulations;
- consider separate enterprise as an object of standardization.

1.3.3 Federal Entity special role in standardization

A region cannot be the subject of standardization, since it is not a separate economic entity. However, the region, in fact, will be the one to gain from enterprises introducing in environmentally responsible business practices to their activities. In addition, the certification the enterprise based on regulations will result in legislative initiative in Federal entity to amend the regulatory framework of the region. In this case, the regulatory framework of the constituent Federal entity and regional infrastructure will indirectly become a subject to standardization. It will help ensure the establishment of a regional environmental safety system, as well as introduce road maps to standardize these components.

In this case, Social-Economic Regional Development Strategy, approved by the Russian government authorities will be the basic document for changes within regional enterprises standardization procedure.

Strategy of socio-economic development, including a mandatory chapter called "Development of the regional environmental safety management infrastructure" shall be developed, approved and accepted by Russian Federal Entities. The strategy determines the economic priorities of the region: territories, industries and technologies of advanced development, the mastering kinds of products, works and services, projects planned for implementation and their corresponding activities, foreseeable damages mitigation and elimination depending on the nature of the activity. The strategy should describe the targeted programs interconnected by purposes, goals, terms and resources, as well as stand-alone projects and activities to promote an environmental safety system in Federal Entities of the Russian Federation. The draft of the Environmental Safety Plan (Road Map) of the Federal entity is subject to public discussion. The Environmental Safety Plan may be approved by the legal body of Russian Federal Entity or by the senior officer of Russian Federal Entity. The Environmental Safety Plan of the Federal Entity can be adopted in the form of a separate document or as a section of a document of wider subject, describing the strategy for regional development, and approved in the manner prescribed by such general document. A separate section of the document shall be dedicated to motivating companies to implement the standardization procedure.

1.3.4 The Environmental Safety Plan of Federal Entity.

Activities within Environmental Safety Plan of Federal Entity shall contain the following:

- a vision of Plan's ultimate goal;
- a structure of the objectives the Environmental Safety Plan of Federal Entity aimed at;
- objectives should be attainable, clearly defined and measurable. The measurability of the objectives means the possibility of establishing indicators, which reflect the performance. These indicators and the rules for their calculation should also be included in the plan for each objective.

The Plan shall specify the following:

- state regional programs and projects, legislative initiatives, structural reforms and other activities which help set the objectives;
- general principles of cooperation among Russian government authorities and local self-governing bodies toward improving ecology in the region;
- milestones schedule for the Environmental Safety Plan of Federal Entity;
- mandatory audit schedule for the Environmental Safety Plan of Federal Entity (at least a year);

Plan budgeting. For each activity in the Plan the following information shall be indicated :

- objectives that could be directly contributed by the activity;
- activity detail description and expected results (including financial performance);
- outline implementation schedule;
- assessment of the resources required for implementation (including labour);
- costs and possible follow-up costs assessment;
- funding sources;
- activities success criteria (that can be measured);
- responsibilities structure and person in charge for each activity.

1.4 Standard capacity

1.4.1 *Standard capacity at the entity level*

This Standard 's main focus will be structuring and targeting regulation for creating Environmental Safety Plan of Federal Entity, definition of its parameters, framework and boundaries. Development parameters Environmental Safety Plan of Federal Entity are as follows:

- framework of the social-economic development strategy of Federal Entity – related aspects of improving regulatory frameworks and enforcement, as well as the territory development approaches;
- temporal boundaries of strategic planning – a period of time the Strategy is designed for.

The pre-requisites for Environmental Safety Plan of Federal Entity are as follows:

- assessment of strategically significant quantitative and qualitative characteristics of the economy of the region at the time when the Strategy was adopted, the available resources of its development (personnel, infrastructural, industrial, information, recreational, etc.), as well as the development forecast for Russian and world economy under the Ministry of Economic Development of the Russian Federation, that serves as the basis for strategic planning;
- the vision of the current ecological and environmental problems related to industrial and social-economic development of the region;
- finding out the most critical points requiring coordination of regulatory legal acts and public documents;
- providing the advanced progress in environmental behaviour in Arctic Region;
- possible flexibility of current and future environmental initiatives.

1.4.2 Standard capacity at the enterprise level

The main function of the standard for enterprises that joined it, will be a function of leading of an entire economic activity to the environmentally responsible management system, which will streamline processes of document workflow, technological audit, quality management, environmental status management, enterprise personnel management to ensure sustainable development of the enterprise. In addition, the adoption of the standard gives us hope that, in time, the compliance with the Standard will be an essential criterion for in bidding on government procurement in Russian Arctic zone. The certificate of compliance with the Standard will give traders and retailers extra argument in favour of products manufactured as per environmental regulations. Apart from that, the Standard will serve as one of the instruments of the enterprise planned development and its technological improvement. Thus, the following Requirements for development, modification and approval of the Environmental Safety Plan are applied:

Development of Environmental Safety Plan and its modification shall be conducted publicly. The public discussion of the Plan should involve experts, entrepreneurs and representatives of the regional authorities. In addition to strategic sessions, consultations, meetings of the working groups an open public debate of the developing plan in the electronic media (including the web page dedicated to environmental activities in the region) shall be arranged.

The developing of the Plan involves specialized organizations that already have a successful experience of similar projects in Russia or abroad.

Introduction of changes and amendments to the plan must also be preceded by a public discussion of such changes.

In general, Environmental Safety Plan shall correspond to the Chapter on environmental policy for social-economic development of the region.

Requirements for Environmental Safety Plan are as follows:

- shaping a structure and a regular reporting on the implementation of activities, targets values and their compliance with expected performance;
- providing high management with personal responsibility for the implementation of specific measures and the achievement of the estimated targets;
- conducting accountability of the achievement within the assessment of managers and staff performance;
- developing and adopting the set regulations for monitoring and revision of Environmental Safety Plan;
- ensuring a regular publication of reports on achievement the expected values of key indicators, key measures, assessment of compliance with predefined success criteria;
- developing and adopting a program of funding for the implementation of Environmental Safety Plan, including the financing of mechanisms and support for infrastructure projects and human potential development. Such program will define:
 - estimated income and expenditures, sources of funding;
 - rights of persons in charge to use the funds as well as the order of adjustments deviations in income and expenditures.

1.5. Definition of national and public nature of the Standard

1.5.1. National nature of the Standard.

National nature of the Standard is reflected in the fact that it is designed for independent territories of the Russian Arctic, taking into account the Russian legislation. In terms of functionality the Standard is a continuation of such documents as "Basic Principles of Russian State Policy the Arctic Region before 2020 and beyond ", "Russian Ecological Doctrine", "2020 Russian Maritime Doctrine ". National nature of the Standard does not exclude adherence to standard of a foreign organizations working in the Russian Arctic.

1.5.2. Public nature of the Standard.

The public nature of the Standard is expressed, first and foremost, in the idea of voluntariness, i.e., the standard is not binding, however, organizations that accept the standard, commit themselves to implement its criteria voluntarily, aware of the importance of preserving the integrity of the environment, compliance with safety standards and responsibility for the quality of life of future generations. Organization

can independently check its conformity with the Standard and declare the acceptance of the Standard, using information in Section 4. However, the functioning of the standard as a system implies the creation of expert council, which will verify whether the activities of an organization comply with the Standard. Expert council shall be an elected body and consist of representatives of organizations that have already adopted the standard, as well as academics and government officials. The expert council membership, size and authority are to be defined at the first meeting of its representatives willing to adopt the Standard.

2. Contemporary issues of environmental management in Arctic Region

2.1. Specifics conditions in Arctic Region

2.1.1. The Arctic is an extensive area in the Northern hemisphere, approximately 25 million square kilometres, including 15 million square kilometres of aquatic region. Its South border passes points of 10° maximal average temperature in July.

For most part the surface of the Arctic Ocean and surrounding waters are covered with 2.5-3 m thick ice shell throughout the year (Mineev, 1938; Krenkel, 1940).

2.1.2. The main climatic feature of the Arctic is the continuous low-temperature period. The average air temperature in the Arctic never rises above zero, and the average monthly temperature in winter time decreases to minus 40° (Vize and others, 1946). The lowest temperature of the Arctic sea coasts is minus 50.4° (Ryazantsev, 1937; Zubov, 1945; Vize, 1948, and others). The extreme low temperature of 49.8° in the Central Polar Basin was registered by SP-2 and SP-4 drift-ice research units (Tolstikov, 1957; Kanaki, 1962, and others). In summer the air temperature above zero is observed in the South-Western part of the Kara Sea for 59 (Cape Chelyuskin) - 109 (Vaygach island) days. Positive temperature lasts up to 87 days in the Laptev Sea and the East Siberian Sea. 84 days is the limit for the North-Western part of the Chukchi Sea (from June,3 to September), and 112 days is registered in its Southern part (from June, 5 to September, 25) (Vorobiev, 1940; Tarbeev, 1940, etc.).

2.1.3. Positive air temperature is observed in the Central Arctic basin in the areas adjacent to the North Pole in the first few days of July, still it stays above 1.5° (Papanin and others, 1937; Treshnikov, 1956). Rains and fogs substitute cold and blizzards in summer season. Up to 24 foggy days are registered for two summer months (Vize, 1940, etc.). Kara Sea, East Siberian Sea and other seas of the Arctic Ocean endure 55-122 foggy days per year. Overcast sky expectancy in autumn is more than 80% (Lappo, 1945; Rodzevich, 1953).

2.1.4. Combination of low temperatures and strong winds adds a particular severity to the Arctic climate. The higher the wind speed, the more cooling effect the negative temperatures have.

The average probability of storms is just 2 %, but rises up to 10-15% on Novaya Zemlya (Vize and others, 1946 and others). Strong 20-25 m/sec winds accompanied by snowfall can only be observed in the Central Arctic basin in the middle of the winter. (Yakovlev, 1957, and others).

2.1.5. A characteristic feature of the Arctic, defining uniqueness of its climate is a specific light pattern. The farther to the North, the longer the polar day in

summer and the polar night in winter. So, the polar day lasts for 71 days, the polar night - 59 days at latitude of 70 degrees North, and their duration is 190 and 175 days at latitude of 90 degrees North, respectively.

The light status has a significant effect on all the human activities in the Arctic. But the polar night period is particularly unfavourable in this respect.

2.1.6. Another specific feature of the Arctic is the fact that almost all the components of the environment (sea ice, bottom sediments, mosses and lichens, some animals) accumulate pollution for many years, while maintaining the poisonous substances without change, thus creating environmental problems for the next generations. In fact, Arctic Region is the main pollution collector of the Northern hemisphere.

2.2. Specifics and issues of Arctic Region environment management

2.2.1. Apart from the natural climate, the Arctic environment is also affected by economic activities in the region. The main problems in this area are the following:

- local-scale nature of industrial and economic development of the territories with total low density of population;
- remoteness from the major industrial centres, high resource intensity and dependence of economic activity and population life support on supply of fuel, food and essential goods from other regions of the Russian Federation;
- low processing level accompanied by accumulation of large volumes of waste, including low concentrated waste water;
- high energy consumption of production and infrastructure;
- low resistance of ecological systems determining the biological balance and the global climate, and their dependence even on minor human-induced disturbance;
- low renewable natural resource recovery rate making them actually non-renewable in real time;
- low rate of natural bio-geochemical cycles of chemical elements;
- low primary products of the ecosystems and effectiveness of energy transfer to higher trophic levels, low diversity, stenecious nature of local species that reduces the self-purification ability of the Arctic natural systems and their resistance against external impacts.

2.2.2. Arctic specificity, as stipulated in Paragraph 2.1, determines a number of problems for life and development of natural resources, part of these problems has a conditionally objective nature and primarily related to the existing level of development of resource production technologies, resource transportation, ensuring human activities and health-supporting technologies in the Arctic

conditions. For example, mining and processing industrial sectors are focused on the end market product in form of concentrates during their activities in the Arctic, and focus on extraction and enrichment of extracted rock masses: dividing the rock mass into ill-conditioned raw materials and ore, enrichment with separation of desired concentrates and enrichment waste. The process is accompanied with storing debris in mine dumps, unplayable ores, disintegrated enrichment waste, high-volume process sewage discharges, industrial dust emissions and unused heat.

A distinctive feature of any of companies in the Arctic is a relatively low nature management level for both mineral raw materials and natural resources due to historical conditions of post-industrial development of the North, and existing structure of treatment with market products, consumer market, generally aimed at recycling into high-tech products in the mainland or abroad. There are problems of creation of nature management legislative base, production and consumption waste treatment, social conditions. Pioneer method of the Arctic developing remains the prevailing method, and operation of mining companies results in huge masses of rich extraction waste.

The second group of issues is related to imperfections of the legal system of the Russian Federation, especially in the terms of environmental security control. This Environmental Security Standard in the Arctic is primarily aimed to solve problems of the second group, as follows:

- lack of any effective management system for natural resource and environment of the Arctic, based on scientific knowledge and advanced technologies of production activities;
- low efficiency of using renewable and non-renewable natural resources of the Arctic, that could not be resolved through integrated technologies of resource development, and use of energy efficient and resource-saving technologies;
- direct transfer of technologies developed for low latitudes, without taking into account specificity of the natural and climatic conditions;
- high production costs of the final products, that is mainly resulted from not local production components, materials, and the need to transport the labour force with all related consequences, that is the need of housing development, medical care facilities and social infrastructure. Therefore, manufacturers want to use already existing technologies with developed production cycles, minimize the nature conservation costs and focus on one type of products;
- ensuring conservation of Arctic flora and fauna biological diversity, including through expanding the network of specially protected natural territories and waters, taking into account the national interests of the Russian Federation, the need to preserve the environment in terms of growth of

- economic activities and the global climate change;
- preventing the damage accumulation source, recovery from wrong doings of the past periods, including the scheduled disposal of nuclear power vessels upon expiry their life cycle;
- poor remedy for disrupted lands and waters related to the lack or minimum cost of disposition of industrial waste in the environment that does not cover the costs for environmental activities.

2.3. Future challenges

2.3.1. Future challenges for development of natural resources of Arctic Region and providing its environmental security are determined by the set of objectives specified in the document named “Basic Principles of Russian State Policy the Arctic Region before 2020 and beyond”.

The objectives include:

- implementation of competitive advantages of Russia in production and transportation of energy resources;
- structural adjustment of economy in the Arctic zone of the Russian Federation on the basis of development of mineral and raw materials base and water biological resources in the region;
- upgrading of economic efficiency of using the mineral and raw material base and water biological resources of Arctic Region through integrated approach and considering their natural characteristics;
- establishment and development of the North Sea Route infrastructure and communication administration system to meet any challenges of the Eurasian transit;
- completion of a unified information space of the Arctic zone of the Russian Federation;
- transformation of the Arctic zone of the Russian Federation into the leading strategic resource base of the Russian Federation;
- global environment and climate changes.

2.3.2. Based on the above mentioned goals the following issues shall be resolved in order to establish an successful management of natural resources in the Arctic, as well as to standardize and unify the nature preserving and nature conservation activities in Arctic Region:

- lack of a unified information system of management of Arctic natural resources including natural resources inventories, results of monitoring and R&D, production processes, etc.
- lack of a unified program of scientific research of natural complexes in Arctic Region, and development of specific technologies;
- low effectiveness of nature management and environment protection

- mechanisms, including lack of royalty payments for use of natural resources;
- lack of regional restriction of load on the Arctic environment;
- lack of legal and economic regulation of using the natural environment for waste disposal;
- dramatic weakening of administrative, and above all, control functions of the state in natural management and environment protection, dispersion of the functions in different departments;
- high proportion of the shadow economy in use of the natural resources;
- low technological and organizational level of the economy, high degree funds exhaustion;
- economic crisis impact;
- low living standards of the native peoples;
- low level of environmental awareness and environmental culture among the population of the country;
- lack of opportunities to resolve all the activities in the form of regulatory acts, a need for introduction of nature management ethical standard

3. Responsibilities in Arctic Region

3.1. Safety Responsibility due to subsoil use rights

The basic principles of environmental protection in accordance with applicable law are as follows:

1. Ensuring a human right to favorable environment.
2. Providing favorable conditions for human vital activity.
3. Protection, reproduction and rational use of natural resources as a necessary condition for ensuring favorable environment and environmental safety.
4. Responsibility of public authorities of Russian Federal Entities and local self-governing authorities for environmental protection and environmental safety in the respective territories.
5. A chargeable fee for the use of natural resources and compensation for environmental damage (ED).
6. Mandatory impact assessment for ED when making decisions on the implementation of economic and other activities.
7. Ensuring the reduction of negative impact of economic and other activities on ED in accordance with standards of environmental protection.
8. Priority preservation of natural ecological systems, natural landscapes and natural complexes.
9. Conservation of biological diversity.
10. Observance of everyone's right of to receive reliable information about the state of ED as well as citizens involvement in decision-making concerning their rights to favorable environment.
11. Responsibility (both legal and criminal) for violation of laws on ED protection.

Every natural resource user is obliged to:

- take the appropriate waste management measures for environmental protection and conservation of natural resources;
- comply with applicable environmental, sanitary and epidemiological and technological regulations and rules when managing waste;
- carry out separate collection of nascent waste by types, hazard classes and other attributes in order to ensure their use as a secondary raw material, recycling and subsequent disposal;
- provide conditions which allows for waste not to harm the environment and human health when temporary accumulating industrial waste at the industrial site before subsequent use in the next technological cycle;
- ensure fulfillment of established standards of ultimate waste disposal;

- obtain a permit for waste disposal regardless of whether waste is placed at self-owned or leased facility;
- arrange collection, accumulation, storage and primary processing of waste, which shall be form an integral part of the main technological process. Such notice shall be reflected in technological regulations and other technical and regulatory documentation;
- participate in scientific research programs funding.

Given the specifics of the region, owners and top management (decision makers) of enterprises conducting economic activities in the Arctic must recognize that ownership and the right to control and use natural resources consider the obligation to prevent environmental damage. The main tool in avoiding any harm to ecosystems is the preservation of the integrity of the Arctic ecosystems. And this in turn binds the management of enterprises at their cooperation level to conduct the following activities together with expert and scientific organizations:

- to develop principles for ecosystems management of Arctic Region and maintaining them in conditions of global and regional environmental and changes;
- maintain the quality of natural environments at the level necessary for the proper functioning of natural ecosystems of the Arctic;
- to protect and preserve the integrity of the Arctic ecosystems, paying particular attention to biological diversity and natural life sustaining processes;
- to create and preserve viable reserves of nature and the biosphere including undeveloped lands and water spaces to protect the systems of self-restoration of the Arctic, to preserve biodiversity and transmit it in the inheritance to future generations;
- to create and develop specially protected natural areas of different levels and regimes, to form on their basis, as well as on the basis of other areas with a predominance of natural processes of nature reserve fund of Russia as an indispensable component of the development of the Arctic and the country as a whole, to preserve the unique natural complexes;
- to preserve and restore rare and endangered species of living organisms in the natural environment of their habitat, in captivity and genetic banks;
- to preserve and restore the integrity of natural systems including preventing their fragmentation during economic activity when creating hydraulic structures, roads and railways, gas and oil pipelines, power transmission lines and other linear structures;

- to preserve and restore natural biological diversity and landscapes on economically developed and urbanized territories;
- to contribute to the restoration of endangered species, populations and ecosystems;
- to contribute to science-based regulation species population, prevention of anthropogenic invasion of alien species.

3.2. The increasing role of knowledge and possibilities

The owners and top management (decision makers) of enterprises conducting economic activities in the Arctic must recognize the responsibility of business to increase knowledge of the Arctic natural systems functioning mechanisms as a scientific basis for the rational use of its natural resources. It should be recognized that with the development of knowledge and perspectives grows the responsibility for the preservation and accumulation of the general welfare.

3.3. Voluntary limitation of freedom to act due to the future generations` needs

The owners and top management (decision makers) of enterprises conducting economic activities in Arctic Region must recognize that the freedom to use Arctic natural is determined by the needs of future generations. Preservation of a viable ecosystem in Arctic Region means preservation of the life of future generations. We must make the effort to pass the healthy ecosystem of the Arctic on to future generations to ensure the continued existence of human and biological communities on the Arctic territory.

4. The basic principles of the National public standard "Arctic Region Environmental Safety" (Rules for Ensuring Ecological Safety and Environmentally Responsible Nature Management when conducting all types of business activity in the Arctic territories)

4.1. The concept of "Sustainable Development"

The basic principles of the National standard "Ecological safety of the Arctic" are essentially the rules for ensuring environmental safety and environmentally responsible management when conducting all types of business activity in the Arctic territories. The basis for the development of these rules was the concept of "Sustainable development" of the Arctic territories. The paradigm of economic growth, stimulated by ever-increasing consumption led humanity to a global environmental crisis, clearly marking the limits beyond which humanity cannot go. These limits are due to physical characteristics of the planet Earth, finiteness of resources traditionally used by mankind to meet the ever-increasing needs. The consumer society artificially creating new needs inevitably will lead humanity to disaster ("Limits of Growth" 1972, "Our Common Future" 1987, "Agenda 21" 1992). The paradigm of sustainable development may eventually become an alternative to the paradigm of economic growth.

The concept of sustainable development arose as an attempt to avoid a global environmental disaster, to develop a new paradigm of the existence of mankind. From the philosophical point of view, the new paradigm is based on the concept of conscious activity (Vygodsky's theory of activity) and systemic contextual thinking (V.I. Vernadsky, J. Lovelock, F. Capra). Systemic thinking does not focus on the "bricks" basic, it is interested in the basic principles of organization. Systemic thinking is contextual, which is the opposite of analytical thinking. The meaning of the term "systemic thinking" is related to the concept of "Deep ecology" (A. Ness, 1970). Deep ecology does not separate neither people nor anything else from the natural environment. It sees the world not as a collection of isolated objects, but as a network of phenomena which are fundamentally

interrelated and interdependent. The deep ecology recognizes the original value of all living beings and sees people only as a special tiny web in the web of life.

Native and small peoples of the Arctic still demonstrate an approach to life developed by centuries of existence in severe arctic conditions described by Arne Ness in the concept of deep ecology. In modern conditions, it is necessary to return to the formation of life patterns on the basis of this principle, but using all the experience of civilization. The Arctic, due to the special vulnerability of its natural and social systems, the natural instability of the economic system, should be the first region of the world for introduction of life patterns developed on the basis of systemic contextual thinking. In this regard, the generally accepted principles of sustainable development should be adjusted to the Arctic conditions.

4.1.1. *The main principles of sustainable development in the Arctic:*

4.1.1.1. The principle of "destruction of barriers" (the equivalence of environmental, economic and social approaches is recognized when choosing a development strategy). Implementation of this principle in the organization plan of measures to ensure environmental safety should be reflected in the following paragraphs:

- when planning any new activity, the principle of preservation of existing ecosystems must be respected;
- any economic activity should bring an improvement of living conditions of the local population;
- environmental impact assessment and assessment of the impact on local communities should be carried out not only at the project planning stage, but periodically (one time in 2 years) by independent researchers with the development of plans for improvement the ecological and social situation.

4.1.1.2. The principle of "pragmatism", which determines that sustainable development at the regional level is a social and political process in which the detection of effective mechanisms for ensuring environmental safety is an ongoing process. Implementation of this principle in the organization plan of measures to ensure environmental safety should be reflected in the following paragraphs:

- preference of technological solutions with low energy and resource costs;
- materials and energy are taken from renewable or recycled sources;
- the principle of "cost of renewable resources". Modern nature management is based on misconceptions about inexhaustibility and low cost of renewable resources (natural waters, atmospheric air, soil,

bioresources, etc.) or lack thereof. Some features of the natural conditions of the Arctic are the attribution of these natural resources to the category of "exhaustible" and providing them for use on loan, including for waste disposal.

- wastes from production and consumption should be minimal, and recycling of secondary resources should be as complete as possible;
- inadmissibility of secondary pollution of the environment when placing waste;
- inadmissibility of using the principles of "dilution" to reduce the technogenic burden on the environment;
- principle of compensation for inflicted and incurred damage to the environment;
- the stable system tends to restrain maximally the process of excretion, to minimize its impact on the environment, to restrict energy and resource consumption;
- integration of progressive environmental principles, participation of influential public and democratic control are implied in the process of preparation and making decisions on the development or creation of new productions;
- the solution of problems requires the cooperation of various parties: representatives of business, local authorities, representatives of national governments, non-governmental organizations, universities, research centers, etc.

The principle of morality (the question of how to "build in" moral principles in management and decision-making processes is an important element of the development concept). The principle of morality in the Arctic should be interpreted as "nothing can be more important than another", no one can benefit at the expense of others. Therefore, any projects in the Arctic should be implemented primarily to improve the living conditions and for the development of local communities, native peoples. For this, it is necessary to find mutually beneficial conditions for the implementation of economic projects.

The main development goal is the development of creative potential of human, search for ways to organize the harmonious existence of local societies including harmonious in relation to nature, organization of the process of searching for new knowledge and its application for comprehensive improvement and harmonization of life in the Arctic. Implementation of the principle of morality in the organization plan of measures to ensure environmental safety should be

reflected in the mechanisms for holding public hearings and discussions of any new projects.

4.1.2. Tasks of the standard

4.1.2.1. In addition to the concept of "sustainable development" for development of the principles of the standard, there were used materials of international standards MSC for fishery and processing of fish products, international and domestic standards for forest management, the Maritime Doctrine of the Russian Federation, Environmental Doctrine of the Russian Federation, "The fundamentals of the state policy of the Russian Federation in the Arctic for the period until 2020 and beyond".

4.1.2.2. Since this standard is the source document for the formation of environmental requirements for organizations and enterprises engaged in economic activity in the Arctic, the tasks of the standard include the provision in the internal documents of the enterprise dedicated to ensuring environmental safety:

- general requirements for technologies and production that take into account the natural features of the Arctic and that ensure the maintaining the stability of natural complexes;
- formulation of economic and non-economic measures to promote the introduction of modern "Arctic" eco-technologies;
- requirements and measures of enterprise responsibility for carrying out measures for liquidation of accumulated environmental damage;
- the content of the measures for stimulating the introduction of ecological culture of behavior;
- the content of the measures for stimulating the introduction of corporate ecological responsibility mechanisms.

4.1.3. Format for presenting the provisions of the standard

4.1.3.1. The scheme "Principle – criterion – indicator – index".

The main problem of provision implementation of sustainable development into practice is declarativeness of principles and a variety of options of perusal. Since the existence of standard implies the subsequent practice of its application to real activity of enterprises, then it is more reasonable to apply in standard the scheme "Principle – criterion – indicator – index" adopted in the world practice. At the same time, the principle is universal for any type of activity; at the level of criteria, sector differences can be indicated which are determined by the specifics of the industry, indicators and indexes are based on criteria. Indicators determine

the reading of the criterion, its consideration from various points of view and applying it in practice. Indicators, on the one hand indicate in which documents the indicator should be reflected, on the other hand they implement the principle of binary code - "yes/no", the indicator always gives an unambiguous answer whether the information on the indicator is contained in the document or not.

4.1.3.2. Issues of eligibility.

The absence of one or more indicators, or non-compliance with any of the criteria may be due to the fact that the enterprise does not conduct the activity described by the criterion, this fact is not an obstacle to joining the standard. If the enterprise documentation contains inconsistencies with the principles and criteria of the standard, then, to join the standard, the enterprise should independently make alterations in their documentation and consequently, in their activity to eliminate inconsistencies. List of organizations that adopted the standard should be published in the materials of the site of the standard and be updated as needed. In addition, the list can be drawn up according to the regional principle for its transfer to the authorities of the Subjects of the Federation. The presence of such list will enable at the entity level to make more deliberated decisions when bidding on public procurement.

4.2. Compliance Principles with Russian Legislation and International Legal Enactments signed by the Russian Federation

4.2.1. Criterion 1.

In the course of any business activity in the Arctic zone of the Russian Federation, the certified organization shall respect all national and regional legislations as well as administrative standards.

4.2.1.1. **Indicator 1.** Certified organization regardless of organizational and legal form and industry affiliation is obliged to comply with requirements of the current legislation when establishing and reregistering organization.

Index: The presence of duly registered organizational documents is necessary.

4.2.1.2. **Indicator 2.** The organization must comply with the requirements of the current legislation during the conduction of its business activities.

Indexes:

- inspection acts;
- violation protocols for environmental, forestry and water legislation;
- penalties (if any) imposed on organization, paying bills;
- reports, data of sociological local population survey;

- certification authority control.

4.2.1.3. **Indicator 3.** The organization shall update its database on legislation including at least those standards mentioned in the current National standard.

Indexes:

- availability of up-to-date subscriptions to electronic normative bases;
- availability of subscription updates;
- interview with organization management.

4.2.1.4. **Indicator 4.** Organization employees shall be acknowledged with legislation changes relate to their activities.

Indexes:

- availability of contracts on personnel development;
- interview with organization employees.

4.2.2. Criterion 2. The certified organization shall conduct all types of charges, deductions, taxes and other payments provided by the current legislation.

4.2.2.1. **Indicator 1.** The certified organization shall have a list of all types of environmental payments, fees, deductions, taxes and other payments with the terms of their payment. The organization must make all of these payments on time, within the established deadline.

Indexes:

- Availability of a list for all types of gatherings, fees, deductions, taxes and other payments of ecological character.
- Organization director and accountant survey.
- Accounting statements.
- Certificate from tax office on tax payments.

4.2.3. Criterion 3. A certified organization must comply with the terms and conditions stipulated by international agreements signed and adopted by the Russian Federation such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Biological Diversity, etc.

4.2.3.1. **Indicator 1.** The organization's management and a person responsible for certification shall be familiar with the main requirements of international legal instruments related to environmental activities, for example, the CITES Convention, the Convention on Biological Diversity, the Ramsar Convention, the Convention Concerning the Protection of the World Cultural and Natural Heritage and bilateral agreements in the field of nature protection, the International

Covenant on Economic, Social and Cultural Rights, relevant to the activities of the organization. The list of conventions and agreements in the field of nature protection ratified by the Russian Federation is published on the website of the Ministry of Natural Resources of the Russian Federation. As a minimum, the key officials shall be familiar with the agreements that are relevant to the activities of the organization and the part in which they are concerned.

Indexes:

- availability of convention and agreement texts ratified by the Russian Federation, their employees;
- administrative order on employees acknowledgement with convention texts;
- data on conducted activities (programs and participant lists);
- interview with organization employees.

4.2.3.2. **Indicator 2.** In the course of business activity, the requirements of international conventions and agreements on environmental protection ratified by Russia must be observed.

Indexes:

- list of activities on meeting the requirements of the relevant conventions and agreements;
- technological regulations, transport schemes, work projects, other documents;
- interview with the organization management;
- interview with organization employees.

4.2.4. Criterion 4. The certified organization must comply with regional regulations; the contradictions between local laws and federal regulations shall be considered by the certification authority in each specific case in terms of achieving certification objectives, and with the participation of all interested or affected parties.

4.2.4.1. **Indicator 1.** The certified organization shall make a list of discrepancies between national legislation and regional and local regulations that are directly related to its business activities. In this case, the discrepancy is understood as a non-compliance with local and regional requirements of the Russian Legislation, and availability of legal misregulation which makes it difficult to comply with the requirements of national legislation.

Indexes:

- availability of discrepancy list;

- interview with organization authority; if the interview shows that such discrepancies do not exist, the list is automatically excluded.

4.2.4.2. **Indicator 2.** The certificated organization is obliged to take measures to resolve contradictions in normative acts related to its activities. The conducted negotiations and consultations between organization executive management and relevant regulatory authorities on resolving the contradictions on laws and delegated acts specified in 4.1.4.1. shall be documented.

Indexes:

- materials of correspondence, meeting protocols on resolving the identified contradictions;
- requests to the Duma commissions of the appropriate profile, drafts of the legislative initiatives;
- interview with interested parties.

4.2.5. **Criterion 5.** The certified organization must protect the Arctic territories used in its business activities from any prohibited and illegal activities.

4.2.5.1. **Indicator 1.** The certified organization shall have a monitoring system identifying and documenting illegal and unauthorized activities in the territory under its business management, for example, illegal fishing and gathering of marine biological resources, illegal beasts and poultry hunting, illegal extraction of valuable fossil biological raw materials (fossils, mammoth tusks, paleontological samples, etc.), illegal mineral hunting, illegal logging, illegal land grabbing, waste disposal and construction.

Indexes:

- availability of a monitoring system to identify and document the facts of illegal and unauthorized activities;
- availability of specialized equipment for technical observation over the territory;
- availability of a database on cases of illegal or unauthorized activities;
- availability of methodology instructions on rules of data transfer on cases of illegal activities to authorized organizations;
- interview with organization management; interview with representatives of local self-government authorities;
- interview with authorized federal, regional and district bodies;
- field inspection.

4.2.5.2. **Indicator 2.** During the business activities, the certified organization shall implement the principle of public information provision in the field of

territory protection concerning the information on by whom, when and how according to the monitoring data the illegal activities were conducted; when information was transferred to the law enforcement bodies; and how did these bodies respond.

Indexes:

- list of users who have the right to conduct business in the territory of the certified organization; registration book of illegal and unauthorized actions;
- acts of endorsement of information on detected violations to the authorized bodies;
- interview of authorized body representatives of federal, regional and local (district or municipal) levels;
- field inspection.

4.2.6. Criterion 6. Managers and owners of certified organization must demonstrate commitment to the principles and criteria of this National standard.

4.2.6.1. Indicator 1. An applicant for certification must have a list of all Arctic territories for which he is responsible as the owner (his authorized representative) or the user (lessee, sub-lessee, contractor, etc.).

Indexes:

- list of territories with description and maps;
- interview with organization management.

4.2.6.2. Indicator 2. Organization must have an internal document that shows the commitment of organization to the principles and criteria on environmental behavior and business activities.

Indexes:

- Written documents approved by the management of the organization (development strategy of the organization with a chapter on social and environmental policy or its main provisions for environmentally responsible behavior, written instructions, etc.).

4.2.6.3. Indicator 3. The certified organization shall conduct explanatory work with personnel on the environmental principles of the organization behavior, as well as staff training on these principles.

Indexes:

- documents confirming the training of organization employees and conducting explanatory work with them on the principles of

environmental management of activities, as well as the requirements of current standard;

- administrative orders on training, training program, participant lists;
- availability of the texts on the principles of environmental management of the business activities of the certified organization, current standard and other environmental documents at the enterprise in the form of information materials;
- interview with organization management;
- interview with organization employees.

4.3. The principle of implementation of the rights and obligations of owners and users upon natural objects in the Arctic.

The long-term rights to own and use land, forest, water, biological resources, as well as the right to explore, develop, extract and process minerals must be clearly defined, documented and formalized in accordance with the law.

4.3.1. Criterion 1.

The certified organization shall clearly define the long-term rights to use natural resources at a certain territory (for example, property right to land, customary law or leasehold, rights to use inland water bodies, quotas for biological resources).

4.3.1.1. **Indicator 1.** There shall be properly executed documents on ownership, management or lease of forest lands, territory for subsoil use, field territories, quotas for fishing and biological resources; as well as other entitling documents related to withdrawal of resources from natural environment.

Indexes:

- documents for ownership or management of territories; certificates of state registration of the lease agreement for the territories;
- rights to use territories for fishing and extraction of living marine resources.

4.3.1.2. **Indicator 2.** Property line of the territory belonging to certified organization nature management must be outlined on map materials and attached to the territory.

Indexes:

- map materials with outlined territory borders;
- field inspection.

4.3.2. Criterion 2. The certified organization shall not interfere in the control of their activities conducted by the local community that has the legal or

customary rights to own or use the resources and the right to exercise control over activities to protect their rights and resources, as well as other organizations to which this right is legally transferred.

4.3.2.1. **Indicator 1.** The organization shall identify local communities having legal or customary (including traditional) rights to use the territories and resources inherent to these territories.

Indexes:

- list of local communities;
- map materials;
- interview with organization management;
- interview with representatives of local self-government bodies;
- interview with native population.

4.3.2.2. **Indicator 2.** The organization shall not restrict the population access to the forest, to river banks, tundra territories and other used territories, except for closed areas of enterprises, factories, mines where the presence of outsiders is limited by the requirements of safety, and also in cases where the presence prohibition at the territory is dictated by the need to ensure fire safety and safety during emergencies.

Indexes:

- instructions and rules of behavior in a fire danger and in emergency situations;
- administrative orders;
- interview with organization management;
- interview with representatives of local self-government bodies;
- interview with native population.

4.3.2.3. **Indicator 3.** The organization while conducting its business activities shall not violate the legal or customary (including traditional) rights of local communities for the use of territories and natural resources.

Indexes:

- availability of normative documents regulating the use of these territories and their resources;
- lack of complaints from the native population on the violation of their rights in the course of economic activity;
- documentation on places traditionally used by the native population;
- interview with organization management;
- interview with representatives of local self-government bodies;

- interview with native population.

4.4. Principle of right and interest consideration of native people.

The legal and traditional rights of native people to own, use and manage their lands, territories and resources must be recognized and respected.

4.4.1. **Criterion 1.** The certified organization shall not raise difficulties for authorized organizations of local people to monitor the business activities on their lands and territories.

4.4.1.1. **Indicator 1.** The native people whose existence and preservation of their cultural traditions depends on traditional nature management at the certified territory shall be identified.

Indexes:

- list of ethno-cultural groups and indigenous communities; documents and interview with ethnologists and/or local lore specialists, confirming the rights to use or own the territories and inherent natural resources of local people;
- interview with organization management;
- interview with employees of educational and cultural institutions;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities.

4.4.1.2. **Indicator 2.** Local people shall have access to information relating to the status and use of natural resources within the territory of the certified organization, in particular, to the lease boundaries, plans for business activities, logging, road construction, etc.

Indexes:

- availability of economic plans for local people; interview with organization management;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities.

4.4.1.3. **Indicator 3.** All transfers of lands to conduct business activities for rent or use shall be conducted publicly.

Indexes:

- publication availability on the holding of auctions for the sale of rights to conclude lease agreements for the Arctic territories;
- interview with representatives of district authorities.

4.4.1.4. **Indicator 4.** Native people shall be informed in advance on the transfer of the Arctic territories for rent (for example, through public hearings).

Indexes:

- publication availability on the holding of auctions for the sale of rights to conclude lease agreements for the Arctic territories;
- protocols of public hearings, citizen meetings, etc.;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities.

4.4.1.5. **Indicator 5.** An agreement with the native people must be documented upon the control of business activities at the territory the natural resources of which are owned by the local community. According to Art. 8 of the federal law "On Guarantees of the Rights of Indigenous Peoples of the Russian Federation" (dated May 12, 1999) "1. Small-numbered nations, associations of small peoples ... have the right: 2) to participate in monitoring of the land use of various categories necessary for the implementation of traditional use and traditional craft of small indigenous peoples, and the use of common minerals in places of traditional residence and activities of small peoples ... ". According to the federal law "On Territories of Traditional Nature Use of the Indigenous peoples of the North, Siberia and the Far East of the Russian Federation", corresponding territories of traditional nature use can be allocated. An authorized representative of indigenous peoples can be the head of a local community, elected or appointed according to tradition. Several jurisdictional communities of indigenous people may operate in the same territory. When verifying the implementation of this indicator, the authority of the representative of indigenous peoples must be confirmed, and the agreement with the community must be in writing.

Indexes:

- agreement with regional and local social organizations and indigenous people;
- materials for correspondence, protocols of meetings with representatives of local people;
- interview with organization management;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities.

4.4.1.6. **Indicator 6.** The certified organization shall have a documented procedure for handling complaints and disputes with local people. Disputes and

complaints regarding the implementation of agreements in accordance with paragraph 4.4.1.5 shall be resolved through communication, negotiation or mediation. The certified organization shall keep records of complaints and disputes with local people in accordance with 4.4.1.5 and the status of their resolution.

Indexes:

- procedure for dispute resolution;
- journal for disputes and complaints;
- meeting protocols of dispute settlement commission, other information on achieved agreements;
- availability of information on compliance with the agreements achieved by the dispute parties;
- interview with representatives of state natural resource management body and/or control and supervision in the sphere of nature management at the regional level;
- interview with organization management;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities.

4.4.1.7. **Indicator 7.** The certified organization shall not have any acute disputes affecting interests of native people.

Indexes:

- journal for disputes and complaints;
- interview with organization management;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities; interview with ethnologists and/or local lore specialists.

4.4.2. **Criterion 2.** The business activity of the certificated organization shall not directly or indirectly threaten the existence or deplete resources, and threaten or restrict the rights of native people of possession the resources.

4.4.2.1. **Indicator 1.** The certified organization with the participation of authorized representatives of native people shall evaluate the risks of direct or indirect impact of their business activities on the living conditions of native people, their rights and the natural resources they use (e.g. water resources, animals and plants).

Indexes:

- protocols for consultations with representatives of indigenous communities;
- materials for impact risk assessment of the ongoing business activity;
- documented risk assessment procedures;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities;
- interview with ethnologists and/or local lore specialists.

4.4.2.2. **Indicator 2.** Business activities introduced by organization development strategy or other long-term planning documents shall not threaten and deplete natural resources used by native people, shall not violate their rights to worsen their living conditions.

Indexes:

- materials for assessing the business activity risks on the environment;
- technological regulations;
- transport schemes;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities;
- interview with ethnologists and/or local lore specialists.

4.4.2.3. **Indicator 3.** The damage caused to the resources located at the territories of indigenous communities should be compensated with account of resource loss (for example, hunting, fishing, berry and mushroom picking, and floral loss) or their quality deterioration (e.g. water resources) basing on the agreement concluded with authorized representatives of native people.

Indexes:

- written agreements with native people, meeting protocols; documentation on damage causing;
- documentary confirmation of damage compensation facts;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities.

4.4.3. **Criterion 3.** The certified organization should accept and protect the places of unique cultural, environmental, economic and religious value precious to native people living at the territory belonging to the business activity of the organization.

4.4.3.1. **Indicator 1.** The certified organization should conduct a consultation for a presence of unique cultural, environmental, economic and religious value precious to native people within the used territory. Information about such places may be available at the cultural departments of district administrations; administrations of rural settlements; local lore museums (cities, regions, settlements); research institutes (for example, Institute of Industrial Ecology Problems of the North of the Kola Scientific Center of the Russian Academy of Sciences); committees on state protection of cultural heritage sites.

Indexes:

- meeting protocols, correspondence materials with representatives of native people, local self-government bodies, research and educational institutions;
- list of located places and objects including map materials;
- interview with specialists participating in consultation conduct;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities;
- interview with ethnologists and/or local lore specialists.

4.4.3.2. **Indicator 2.** Places of the employed territories having unique cultural, environmental, economic and religious value for native people should be identified with the participation of representatives of these native people. Such places should be marked on maps taking to account the opinion of native people. These places can be identified on the site, if there is no objection from the indigenous communities living at those territories.

Indexes:

- consultation materials, interview with specialists participating in the territory detection;
- list of located places and objects including map materials;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities;
- field inspection.

4.4.3.3. **Indicator 3.** As a result of consultations with authorized representatives of native people, measures for protection and regulations for using the territories belonging to unique cultural, environmental, economic and religious value shall be approved.

Indexes:

- agreement protocols with native people;
- technology regulations and transport schemes;
- list of identified territories and objects;
- documents regulating use or protection including map materials;
- interview with organization employees;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities;
- field inspection.

4.4.3.4. **Indicator 4.** Employees of certified organization shall be informed on location of such places and restrictions for their use.

Indexes: Interview with organization employees; field inspection.

4.4.3.5. **Indicator 5.** Any business activity causing threat to existence of unique territories in accordance with paragraph 4.4.3.1. shall be stopped or suspended till an agreed decision with the authorized representatives of native people.

Indexes:

- appeals of native people on unique territories and objects, examples (if any) of stopping or relocation of business activity to another place;
- protocols of meetings with authorized representatives of native people on dispute resolutions, agreements signed by representatives of both parties;
- map materials;
- interview with organization management;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities;
- field inspection.

4.4.4. **Criterion 4.** Within the provided regulations, the certified organization shall compensate the damage to native people for exploitation of their territories used for traditional industry and farming program. Methods for compensation sum calculation shall be officially agreed with native people in their free and informed participation prior to business activity.

4.4.4.1. **Indicator 1.** In case of free and informed participation of native people, the certified organization should conclude with these people written agreement upon the compensation procedure for exploitation of their territories used for traditional industry and farming program. The agreement and methods

for compensation sum calculation shall be officially agreed with native people in their free and informed participation prior to business activity.

Indexes:

- agreement with native people upon the compensation procedure for exploitation of their territories used for traditional industry and farming program;
- calculation methods for compensation sum;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities;
- interview with ethnologists and/or local lore specialists.

4.4.4.2. **Indicator 2.** With a signed agreement, native people shall receive compensation in accordance with the paragraph 4.4.4.1.

Indexes:

- agreement with native people upon the compensation procedure for usage of their territories used for traditional industry and farming program;
- methods for compensation sum calculation; documents confirming the compensation payment;
- interview with representatives of local self-government bodies;
- interview with regional and local social organizations and indigenous communities.

4.5. The principle for reasonable nature management in the Arctic. Organization business activity should facilitate the effective complex and wasteless (if possible) use of nature resources in order to increase the economic effectiveness and get a wide range of environmental and social benefits.

4.5.1. **Criterion1.** The business activity of the certified organization shall be directed to maintain the economic effectiveness, and yet, shall be founded with the account to possible environmental and social consequences. It has to provide investments to support environmental security.

4.5.1.1. **Indicator 1.** The certified organization shall have the sources to implement its development strategy and the entire business strategy (for example, logging, road construction, development of facilities, monitoring, etc.). These sources can include not only the organization funds, but also funds received from federal or regional budgets.

Indexes:

- organization development strategies and other materials grounding business activities and nature management;
- economic analysis of organization financial plan for the current and last year;
- financial results of organization activity (financial statement);
- financial plan; interview with organization management.

4.5.1.2. **Indicator 2.** Business activity of the certified organization is economically sustainable and is able to guarantee the investment quote necessary for long-term operation of the organization taking into account all environmental, social and industrial expenses.

Indexes:

- financial plan of organization;
- economic analysis for financial plan execution;
- financial statement;
- financial results of organization activity;
- interview with organization management.

4.5.1.3. **Indicator 3.** The certified organization allocates sources for carrying out environmental renovation activities in an amount sufficient to compensate or minimize the damage caused and preplanned in the development strategy of the organization.

Indexes:

- organization development strategies and other materials grounding business activities and nature management;
- interview with organization management;
- field inspection.

4.5.2. **Criterion 2.** Business activities conducted by the certified organization shall provide decrease in consumption of energy and natural resources (air, natural waters, soils, and other landscape elements), waste reduction; and they should not damage other natural resources.

4.5.2.1. **Indicator 1.** Taking to account its financial and technical possibilities, the certified organization shall aim for the most economically effective use of natural resources.

Indexes:

- List and amount of consumed natural resources per production unit including those used for waste disposal;
- Action plan on the decrease of the consumed natural resources;

- nomenclature and amount of delivered production on separate categories;
- list of consumers of organization production;
- documents on changes of nomenclature and amount of output production on separate categories in recent years;
- documents on sales changes of the output production on separate categories in recent years;
- data demonstrating the organization efforts to find new markets;
- interview with organization management.

4.5.2.2. **Indicator 2.** The certified organization, if it is justified economically and technically, tends to process natural resources independently or supplies them to local and regional organizations for processing.

Indexes:

- documents on changes of nomenclature and amount of output production on separate categories in recent years;
- program on changing the nomenclature and amount of output production on separate categories in recent years;
- data demonstrating the organization efforts to increase its own processing level and/or share of local/regional production buyers;
- interview with organization management;
- interview with management of local processing enterprises.

4.5.2.3. **Indicator 3.** The certified organization tends to use the whole amount of the extracted natural resources.

Indexes:

- data on the structure and composition of the resource used by the certified organization; indication of a high-grade share, low-grade share, a share of waste;
- data on the use of a low-quality/low-grade share of the extracted resource;
- list of measures to preserve biodiversity and to provide environmental renovation;
- interview with organization management;
- field inspection.

4.5.2.4. **Indicator 4.** The certified organization, if it is justified economically and technically, tends to use production wastes (for example, in case of disposal of crab, shrimp, krill, the shell is used for production of pharmacological raw materials; in case of logging, small sized wood, dead-wood, short cut tree stem,

wood shreadings, etc. are produced); and provide their processing on site, if it has no negative impact on environmental conditions.

Indexes:

- internal regulations for waste generation approved by organization management;
- instruction for handling production wastes;
- data on the amount of waste production and dynamics of their accumulation in recent years;
- data on the use of wastes and low-quality component of wood resource;
- list of measures to preserve biodiversity and to provide environmental renovation;
- interview with organization management;
- interview with organization specialists;
- field inspection.

4.5.2.5. **Indicator 5.** The certified organization takes all possible measures to ensure that business activities do not damage the key elements for these ecosystems unreasonably.

Indexes:

- materials of technological nature - technological maps, production regulations, forest declarations, transport schemes;
- list of measures to preserve biodiversity and to provide environmental renovation;
- interview with organization management;
- interview with organization specialists;
- field inspection.

4.5.2.6. **Indicator 6.** The business activity of the certified organization shall not lead to the complete or partial destruction, elimination of places that are essential for maintaining and reproducing other types of natural resources (recreational, water, soil, hunting, fish, mushroom, berry, etc.).

Indexes:

- list of measures to minimize damage to various types of related resources;
- interview with local people;
- interview with organization management;
- interview with organization specialists;
- field inspection.

4.5.3. **Criterion 3.** Business activities of the certified organization shall be aimed at strengthening and diversifying the local economy in order to avoid its dependence on one type of product. As the organization of practical nature protection measures depends on the conditions of local economy.

5.4.3.1. **Indicator 1.** When planning business activities, the certified organization studies the technical and financial possibilities for producing the maximum possible list of products.

Indexes:

- data on the analysis on feasibility of different type productions and services taking to account financial and technical possibilities, supply and demand structure, and their possible changes in the future;
- data demonstrating the organization efforts to find new markets and focus on the production of a bigger range of products and services;
- interview with organization management.

4.5.3.2. **Indicator 2.** Taking into account the economic feasibility, the certified organization expands the range of supplied goods and services including those that are in demand on the local market, in this case regional and federal programs can be used to encourage production diversification.

Indexes:

- nomenclature and amount of delivered production on separate categories;
- consumer list of the organization products;
- documents on changes of nomenclature and amount of output production on separate categories in recent years;
- participation in regional and federal programs on encouraging production diversification;
- interview with organization management;
- interview with local buyers of the production.

4.5.3.3. **Indicator 3.** The certified organization shall not prevent the development of various ways of using the natural resources (for example, sports and licensed fishing, harvesting of mushrooms and berries, hunting, various types of tourism) within its territory, if it does not complicate the production process, does not contradict the safety regulations, does not lead to emergency situation.

Indexes:

- interview with organization management;
- interview with representatives of local self-government bodies;
- interview with native people.

4.5.4. **Criterion 4.** A single activity maintained by the certified organization shall consider, support and encourage (if possible) the increase of other natural resources.

4A) Specific criterion for forestry enterprises.

4.5.4.1. **Indicator 1.** Water protection zones and coastal shelter belts shall be established on the territories under business activity of the certified organization adjacent to the seas, rivers, streams, canals, lakes and reservoirs. These are water bodies for which the allocation of water protection zones and coastal shelter belts is provided for by federal legislation (Water Code). With regard to the conservation of the moor edges (including the afforested) and areas along temporary streams, the requirements for preserving main biotopes, habitats for threatened and endangered species, and preserving the mosaic landscape after clear felling shall be taken into account.

Indexes:

- Water Code of the Russian Federation;
- forest management regulations and/or forest management project (felling project);
- map materials with identified water protection zones;
- field inspection.

4.5.4.2. **Indicator 2.** The size of the water protection zones and coastal shelter belts allocated by the organization should not be less than that prescribed by federal legislation, and the special regime for carrying out economic and other activities in them must comply with the federal law or be stricter.

Indexes:

- Water Code of the Russian Federation;
- forest management regulations and/or forest management project (felling project);
- map materials with identified water protection zones;
- field inspection.

4.5.4.3. **Indicator 3.** The size of water protection zones around sites of particularly valuable fishery importance (spawning grounds, feeding migrations, wintering of fish and other aquatic biological resources) shall ensure their preservation.

Indexes:

- Water Code of the Russian Federation, standards for specially protected forest areas;
- materials of researches and justifications, including cartographic;
- forest management regulations and/or forest management project (felling project);
- map materials with identified water protection zones;
- field inspection.

4.5.4.4. **Indicator 4.** Water protection zones in the areas of certified logging and road construction shall be marked on the site.

Indexes:

- forest inventory materials with mensurational description;
- map materials with identified water protection zones;
- field inspection.

4.5.4.5. **Indicator 5.** Drying out of wetlands shall be conducted only for the restoration of the natural hydrological regime.

Indexes:

- forest management regulations and/or forest management project (felling project);
- documents on forest improvement;
- field inspection.

4.5.4.6. **Indicator 6.** Forest management carried out by the certified organization within water protection zones of all types (protective forests and specially protected forest areas) should not adversely affect the ecological functions.

Indexes:

- forest management regulations and/or forest management project (felling project);
- plan for forest management with map materials; monitoring results;
- interview with native people;
- interview with representatives of fish protection;
- interview with representatives of protective and supervision body on environmental management;
- field inspection.

4.5.4.7. **Indicator 7.** Forest management shall not lead to erosion or genesis of bog soil; reforestation measures shall be extended.

Indexes:

- documents evaluating the impact of business activities on environment;

- structure of reforestation and its financing;
- research results;
- interview with expert organizations;
- field inspection.

4.5.4.8. **Indicator 8.** Business activity of the certified organization shall not negatively affect the water protective functions of forests, drainage basins within the used territories, for example, water quality due to pollution, silting, eutrophication and hydrological regime of the territory.

Indexes:

- documents evaluating the impact of business activities on environment;
- research results;
- interview with expert organizations;
- field inspection.

4.5.4.9. **Indicator 9.** Business activity of the certified organization shall not restrict the availability of non-wood forest resources (poultry, fish, berries and mushrooms) for the native population. The availability is understood here as the possibility of free access to these resources including absence of barriers. Except for cases provided for by legislation and technical regulations, preservation of trails of native population on logging.

Indexes:

- monitoring results;
- interview with native people;
- interview with expert organizations;
- field inspection.

The certified organization shall pay deductions for measures to regenerate the exploited resources.

Indexes:

- Agreement with forestry organizations
- Plan for reforestation measures

4B) Specific criterion for enterprises performing commercial fishing.

4.5.4.10. **Indicator 10.** The certified organization shall exploit fishing gear and methods developed to avoid inappropriate fishery catching, such as, inappropriate size, age and/or gender of the target species; minimize deaths of inappropriate fish if catching cannot be avoided and (if possible) create conditions when inappropriate fish could be set free alive.

Indexes:

- Schedule and territorial restrictions for fishing considering biological features of facility business;
- documentation for fishing gear, gear matching to the characteristics mentioned in the documentation;
- logbook;
- interview with ship's crew;
- interview with company management;
- field inspection.

4.5.4.11. **Indicator 11.** The certified organization shall impose appropriate fishing methods developed for minimization of adverse impact on resource environment especially in critical and sensitive zones like the zones for spawning and fish-growing.

Indexes:

- documentation for fishing gear, gear matching to the characteristics mentioned in the documentation;
- logbook;
- interview with ship's crew;
- interview with company management;
- field inspection.

4.5.4.12 **Indicator 12.** The certified organization must exclude destructive fishing methods, like fishing with poison or explosives.

Indexes:

- documentation for fishing gear, gear matching to the characteristics mentioned in the documentation;
- logbook;
- interview with ship's crew;
- interview with company management;
- field inspection.

4.5.4.13 **Indicator 13.** The certified organization shall minimize its operation wastes, such as loss of fishing gear, oil spills, on-board fish damage.

Indexes:

- logbook;
- interview with ship's crew;
- interview with company management;
- field inspection.

The certified organization shall make deductions on activities for recreation of exploited resources.

Indexes:

- Contract with fish-breeding organizations
- Plan for fish-breeding activities

4.5.5. **Criterion 5.** The quantity of renewable resources exploited by the certified organization shall not exceed the amount guaranteeing the resource restoration.

5.A) Specific criterion for forestry enterprises.

4.5.5.1. **Indicator 1.** Annual amount of timber removal shall be defined by forest compartments in terms of forest target purpose, by business, and by felling types. The common planned volume of tree felling should include all types of felling (including environmental and salvage felling). If there is a need, it should be corrected with account of merchantable wood loss caused by wildfire, forest disease, breeding outbreak of plant-eating invertebrate animals, mass windfalls.

Indexes:

- documents regulating calculated felling rate/annual amount of timber removal;
- grounding the calculating felling rate defined by business, lease base, compact ground for lease base;
- forest management regulations and/or felling plan;
- annual monitoring data;
- interview with organization management.

4.5.5.2. **Indicator 2.** Common planned volume of annual felling executed by the certified organization shall be corrected downwards if the annual timber removal (calculated felling rate) includes the following timber:

- timber felling of which is prohibited or restricted by the protected forest site regulations;
- timber felling of which is allowed but will not be executed due to economic site inaccessibility or small growing stock (economically inaccessible forests).

Indexes:

- documents regulating calculated felling rate/annual amount of timber removal;
- forest management regulations and/or felling plan;
- annual monitoring data;
- interview with organization management.

4.5.5.3. **Indicator 3.** The annual amount of logging provided by the certified organization shall guarantee long-term inexhaustibility of utilization. Annual

volume of timber removal assumes fast reforestation for all kinds of felling, timely environmental felling (where needed), and fire protection of forest cultures. Non-compliance of one of these regulations will lead to resource exhausting. Exceeding the inexhaustible annual level is permitted in the short run in general or by individual business, if it is associated with long-term forestry operation (to achieve the desirable balance between business and age-class composition) or associated with catastrophic nature phenomenon (wildfires, breeding outbreak of plant-eating invertebrate animals). The amount of inexhaustible annual harvesting level of non-timber forest products shall be calculated only in terms of quantity, if the harvesting amounts are carried out in production quantities, or if the logging violates the traditional or common rights related with harvesting of non-timber products.

Indexes:

- loan agreement;
- forest management regulations and/or felling plan;
- report on felling amount;
- schedule of planned amounts for annual felling allocated by business during a minimum of half period for felling (long-term lease period) in general and for economically available forests.

4.5.5.4. **Indicator 4.** The annual volume of timber removal shall be documented for each felling area.

Indexes:

- documentation on felling amount;
- materials for withdrawals of timber cutting areas (forest use reports, felling license or orders);
- forestry regulations (materials for forestry management and/or forest exploitation plan);
- field inspections.

4.5.5.5. **Indicator 5.** Exploitation many-leaved and/or other documents regulating conversion of specific felling area should content at least the following information:

- its location including forest division, forest group, area numbers, divisions, felling area;
- type of business activity (utilization);
- method and type of chopping or type of preserved resources;
- type of harvest timber;
- harvest area;

- structure of original growing stock;
- area with preserved young growth;
- volume of sold timber and/or other forest resources;
- trees felleable and non felleable;
- non exploitative areas, other sites/elements of non felleable growing stock;
- terminal date for tree felling and transportation;
- forest protection measures and theirs realization terms;
- methods for felling area cleaning;
- specifics of logging works;
- measures for forest rehabilitation;
- bays, storing for industrial and consumption wastes;
- measures for removal and waste recovery.

Indexes:

- materials for withdrawals of timber cutting areas (forest use reports, felling license or orders with exploitation many-leaved);
- forestry regulations (materials for forestry management and/or forest exploitation plan).

4.5.5.6. **Indicator 6.** Secondary forest exploitation at the certified territory shall not lead to exhaustion of appropriate resources.

Indexes:

- documents permitting the secondary forest exploitation;
- interview with representatives of forest regulatory body at the district level;
- interview with organization employees;
- interview with local population;
- field inspection.

5B) Specific criterion for enterprises implementing commercial fishing.

4.5.5.7. **Indicator 7.** The certified organization shall keep the scientifically grounded levels of fishing that will protect the size of target population and the reproduction level guaranteeing environmental stability for the whole biocenosis for the fishing ground no-purpose bioresources.

Indexes:

- documents supporting fishing quotas;
- documents supporting resource withdrawal; interview with company management;
- interview with company management.

4.5.5.8. **Indicator 8.** The certified organization shall use only those fishing methods that minimize adverse influence on environment especially in critical and sensitive zones like the zones for spawning and fish-growing.

Indexes:

- documentation for fishing gear, gear matching to the characteristics mentioned in the documentation;
- logbook;
- interview with ship's crew;
- interview with company management;
- field inspection.

4.5.5.9. **Indicator 9.** The certified organization shall guarantee recovery of depleted population up to the scientifically grounded level.

Indexes:

- interview with company management;
- plan of activities
- amount of deduction for fish recovery measures
- field inspection.

4.5.5.10 **Indicator 10.** The certified organization shall individually restrict or stop fishing when the quota has ended.

Indexes:

- interview with company management;
- field inspection.

4.5.5.11. **Indicator 11.** The certified organization facilitates in establishing zones prohibited for fishing (if necessary).

Indexes:

- interview with company management;
- field inspection.

4.6. Minimization principle for negative impact on the environment. Business activity maintained by the certified organization shall guarantee preservation of biological diversity and related values, water resources, soils, and unique and fragile ecosystems and landscapes; by this means environmental functions and ecosystem integrity of Arctic will be preserved.

4.6.1. **Criterion 1.** The certified organization shall conduct an environmental impact assessment taking into account the volume and intensity of its activities, as well as the uniqueness of resources involved in business activities. Such assessment shall be fixed into the production system, and it shall consider the situation at the territorial level, as well as the impact of machines and other

equipment at the local level. Environmental impact assessment shall be conducted prior to the start of any business activities.

4.6.1.1. **Indicator 1.** The certified organization shall conduct the environmental impact assessment (EIA).

Indexes:

- EIA materials and/or ecologic or state expertise;
- technologic regulations, transport schemes;
- interview with organization specialists.

4.6.1.2. **Indicator 2.** EIA materials shall include types of planned activities becoming a source of environmental impact.

Indexes:

- EIA materials and/or ecologic or state expertise;
- technologic regulations, transport schemes;
- interview with organization specialists.

4.6.1.3. **Indicator 3.** EIA materials shall characterize the environment. Environment in accordance with criterion indexes includes flora, water body, soil, fauna, landscape, landscape visual quality which can be affected as a result projected activity implementation.

Indexes:

- EIA materials and/or ecologic or state expertise;
- technologic regulations, transport schemes;
- interview with organization specialists.

4.6.1.4. **Indicator 4.** EIA materials should characterize unique and/or protected resources located at the exploited territories: representative (standard) ecosystem areas; rare and endangered species of flora, fauna and mushrooms listed in Red Book of the Russia Federation and Red Books for regions; species that fall within the scope of multipartite agreements related with environment protection ratified by Russia.

Indexes:

- EIA materials and/or ecologic or state expertise;
- technologic regulations, transport schemes;
- interview with organization specialists;
- Red Book of the Russia Federation and Red Books for regions (list); multipartite agreements related with environment protection ratified by Russia;
- materials of inventories including cartographic, rare and endangered species of flora, fauna and mushrooms;

- methods and guidelines for the identification and conservation of rare and endangered species of flora, fauna and mushrooms;
- materials of inventories, maps of representative (standard) ecosystem areas;
- methods and guidelines for the identification and conservation of representative (standard) ecosystem areas;
- interview with representatives of social organizations.

4.6.1.5. **Indicator 5.** Within the EIA, the types of proposed activities shall be assessed in terms of their environmental impact, including unique and/or protected resources. It is necessary to evaluate the impacts that lead to environmental pollution, the seizure of various types of natural resources or negatively affect their condition.

Indexes:

- EIA materials and/or ecologic or state expertise;
- technologic regulations, transport schemes;
- recommendation for business activity;
- interview with organization specialists;
- interview with representatives of social organizations.

4.6.1.6. **Indicator 6.** Within EIA, types of planned activities shall be assessed in the context of impact of machines and other equipment at the local level.

Indexes:

- EIA materials and/or ecologic or state expertise;
- technologic regulations, transport schemes;
- recommendation for business activity;
- interview with organization specialists;
- interview with representatives of social organizations.

4.6.1.7. **Indicator 7.** The assessment of justification and inexhaustibility level of recommended annual volume of extracted resources is provided within EIA.

Indexes:

- justification of common annual volume of extracted resources; EIA materials and/or ecologic or state expertise;
- technologic regulations, transport schemes;
- recommendation for business activity;
- interview with organization specialists;
- interview with representatives of social organizations.

4.6.1.8. **Indicator 8.** Measures to prevent and/or reduce possible negative impact on environment at the landscape and local levels shall be suggested within EIA.

Indexes:

- EIA materials and/or ecologic or state expertise;
- technologic regulations, transport schemes;
- recommendation for business activity;
- interview with organization specialists;
- interview with representatives of social organizations.

4.6.1.9. **Indicator 9.** The certified organization shall provide control and assessment of executed activities on environment at the local level.

Indexes:

- monitoring data;
- EIA materials and/or ecologic or state expertise;
- technologic regulations, transport schemes;
- recommendation for business activity;
- interview with organization specialists;
- interview with representatives of social organizations.

4.6.1.10. **Indicator 10.** The certified organization shall consider the EIA results when planning and implementing business activities.

Indexes:

- monitoring data;
- EIA materials and/or ecologic or state expertise;
- technologic regulations, transport schemes;
- recommendation for business activity;
- interview with organization specialists;
- interview with representatives of social organizations.

4.6.2. **Criterion 2.** The certified organization shall take into account and use in its activity existing rules for the protection of rare and endangered species and their habitats (e.g., breeding and feeding grounds). Protected areas and areas with restrictions on use shall be created depending on the scale and intensity of the activity, as well as the uniqueness of the resources involved in the sphere of business activity. Hunting, fishing, trapping and gathering are to be under control.

4.6.2.1. **Indicator 1.** The appropriate security and protection requirements must be observed for animal and plant species subject to control of the CITES Convention or to international agreements on nature protection and occurring in areas that fall within the area of the business activity of the certified organization.

Indexes:

- texts of conventions and agreements ratified by the Russian Federation;
- a list of relevant types and areas of Arctic territories;
- cartographic material or relevant licenses, if necessary.

4.6.2.2. **Indicator 2.** The documentation of the certified organization shall contain a list of rare and endangered species that live in the territory that falls within the area of the business activity of the organization. The lists of such species shall be based on the Red Book of the Russian Federation and of regional Red Books and lists of rare species, take into account species that may be endangered by the activities of the organization, and also contain descriptions of their typical habitats, threats and necessary protection measures. For regions where there are no Red Books and / or lists, or they are clearly incomplete (for example, there are no mushrooms), it is recommended to use available scientific literature containing information on rare species of such groups and to involve local biologists in compiling of such lists.

Indexes:

- Federal and regional Red Books of rare and endangered species of plants, animals and mushrooms or corresponding lists;
- lists of relevant species (including a description of typical habitats, threats and necessary protection measures) living in the area.

4.6.2.3. **Indicator 3.** The certified organization shall collect the best available information on acquainted habitats of rare and endangered species of flora, mushrooms and fauna occurring in areas of the economic turnover. In different seasons, animals may require different habitats (for example, places of winter and summer feeding may vary, spawning and fish-growing areas, the young-stock breeding places may become places of particular importance in spring, etc.). Therefore, it is required to collect information, including information of various seasonal animal habitats.

Indexes:

- an overview of available materials on rare and endangered species being present in the area, including cartographic material;
- methods for identifying the rare and endangered species;
- interview with organization specialists;
- Interview with interested parties.

4.6.2.4. **Indicator 4.** The certified organization shall conduct field surveys and / or use other methods to identify habitats of species, taking into account biodiversity conservation measures. Key biotopes (areas where rare and

endangered species as well as vulnerable and demanding the proper environmental conditions species can occur with high probability and non-randomly) can be identified in practice.

Indexes:

- methods for identifying the key biotopes;
- field survey materials;
- interview with organization specialists;
- interview with interested parties.

4.6.2.5. **Indicator 5.** The habitats of rare and endangered species of flora, fauna and mushrooms shall be placed on the cartographic materials of the organization. First of all the map shall be filled up with the places of concentrated habitat of rare and endangered species of flora, fauna and mushrooms. The maps can also contain information on particularly valuable key biotopes.

Indexes:

- materials of surveys of territories, scientific researches; Cartographic material;
- interview with specialists.

4.6.2.6. **Indicator 6.** The organization shall develop a system of measures for preservation of habitats for rare and endangered species, as well as of key biotopes. As a rule, the measures to protect rare and endangered species may comprise a complete or partial prohibition for business activities in the identified habitats and key biotopes.

Indexes:

- a system of measures to identify and preserve key habitats;
- interview with organization specialists;
- Interview with interested parties.

4.6.2.7. **Indicator 7.** The organization shall make a list of the main species of animals classified as hunting and fishing objects of the given territory, as well as a list of their key biotopes composed during the consultation with interested parties, for example, specialists and representatives of hunting and fishing societies, representatives of native people, representatives of scientific communities.

Indexes:

- lists of species of animals classified as hunting and fishing objects and lists of their potential key biotopes;
- business plans, technological maps, transport schemes;
- documents for protected areas;

- reports, records of consultations, negotiations with hunting specialists, representatives of hunting and fishing societies, scientists;
- Interviews with representatives of native people.

4.6.2.8. **Indicator 8.** The organization shall develop a system of measures to preserve key biotopes of animals classified as hunting and fishing objects on the basis of consultations with interested parties, for example, scientists, specialists and representatives of hunting and fishing societies.

Indexes:

- a system of measures to preserve key biotopes of animals classified as hunting and fishing objects;
- interview with organization employees;
- interview with representatives of hunting and fishing societies;
- interview with scientists.

4.6.2.9. **Indicator 9.** The organization shall implement measures to protect key biotopes of animals classified as hunting and fishing objects in protected areas, including newly identified key biotopes.

Indexes:

- a system of measures to protect key biotopes of animals classified as hunting and fishing objects;
- releases of the results of the performed activities;
- interview with the local population;
- interview with specialists of fishing inspections and hunting inspections;
- interview with organization specialists;
- field inspection.

4.6.2.10. **Indicator 10.** The organization shall have on its territory protected areas with limited conditions of economic use that maintains protection of habitats for rare and endangered species and key biotopes, primarily key habitats of rare and endangered species of plants, animals and mushrooms, including parts of areas having special importance for the realization of life cycles of vertebrate animals.

Indexes:

- documentation for protected areas;
- cartographic material;
- field inspection.

4.6.2.11. **Indicator 11.** To protect habitats of rare and endangered species, new protected areas with official status shall be created on the territory in use, or such areas shall be preserved voluntarily.

Indexes:

- data on created protected areas, documented proposals for their creation, written commitments on voluntary protection approved by the organization management, including cartographic materials;
- materials of correspondence, protocols of meetings with interested parties;
- technological regulations, transport schemes;
- interview with organization specialists;
- Interview with interested parties.

4.6.2.12. **Indicator 12.** Employees of the organization shall be acquainted with the materials on rare and endangered species of plants, animals and mushrooms being on the territory in use, as well as with the list of animals classified as hunting and fishing objects, with their typical key biotopes, as well as with measures to preserve these species.

Indexes:

- lists of rare and endangered species of plants, animals and mushrooms being in the territory, of key biotopes and measures for their conservation;
- data on performed training sessions and field training for employees (training programs, lists of participants);
- interview with organization employees;
- interview with organization management.

4.6.2.13. **Indicator 13.** The organization shall assist the competent state authorities and other interested parties in monitoring the extraction of resources (wood logging, hunting, fishing, etc.). The task of the organization is to assist the competent state authorities in the struggle against poaching and / or to conduct appropriate preventive work on the territory in use, inform the competent authorities about the violations that have occurred.

Indexes:

- releases of measures to protect wildlife resources;
- interview with specialists of fishing inspections and hunting inspections;
- interview with organization management;
- field inspection.

4.6.3. **Criterion 3.** Ecological functions and values of the exploited resource shall be maintained in its original form, improved or restored. This includes the following:

Participation in the financing of programs for the study, conservation and restoration of the natural systems of Arctic

A) measures for recultivation or restoration of ecosystems;

B) measures to preserve natural diversity at the genetic, species and ecosystem levels;

C) measures to accounting natural cycles that affect the productivity of resources involved in the sphere of business activity.

Branch specificity of measures for recultivation or restoration of ecosystems.

3.A). Forest regeneration and natural development of the forest.

4.6.3.1 **Indicator 1.** The main environmental characteristics of the forest condition of the exploited territory shall be established:

- forested area;
- composition and age conditions of the forest;
- area of burnt and dead trees;
- structure of forests by economic purposes (protective, operational, reserved);
- part of forests with tree species prohibited of felling within the framework of federal and regional legislations;
- part of forest types rare in the region.

Indexes:

- lists of tree species prohibited of felling, of forest types rare in the region;
- main environmental characteristics of the forest plot conditions;
- Forestry regulations (forest management materials) and / or forest exploitation project (felling project).

4.6.3.2. **Indicator 2.** Regular recording of changes in the environmental characteristics of the forest plot shall be performed.

Indexes:

- forest management materials;
- materials of annual data summaries.

4.6.3.3. **Indicator 3.** Within the used territory areas degraded as a result of business activities shall be identified prior to the start of the process of joining to the standard (long-lasting not afforested felling and burning areas, areas with unnaturally high frequency of fires, eroded areas, areas with traces of mining activities, places of unauthorized dumps, other sources of negative impact on the environment).

Indexes:

- a list of land plots degraded as a result of business activity;

- cartographic material;
- the record book of wood plots withdrawn from the forest fund.

4.6.3.4. **Indicator 4.** The organization shall realize measures for restoration (reforestation, recultivation) of degraded because of economic activity forest areas.

Indexes:

- documents on restoration and recultivation of disturbed forest areas;
- field inspection.

4.6.3.5. **Indicator 5.** Refusal from the extensive model of forestry concentrating on harvesting timber in frontier forests by long-term abandoning the felled areas for self-cultivation, and adoption of intensive forestry models, the most important principles of which are the provision of economic and environmental sustainability of forest management and the preservation of social and cultural values. The organization shall simulate the natural dynamics of a specific forest in carrying out forestry activities. By imitating the natural processes in a varying degree, it is possible to reduce significantly the costs of reforestation and preservation of biological diversity, to reduce environmental risks associated with the peculiarities of the natural development of the present forest. The methods of felling, reforestation and forest care shall take into account the typical disturbances (the death of separate trees or their groups, exposure to windfalls and fires), the process of the forest development (for example, the natural change of dominant breeds during succession), the structure and spacial arrangement of the forest stand. For forests heavily disturbed as a result of anthropogenic activities (frequent grassy felling, severe erosion and bogging on felling, reduction of the species composition of timber stand, etc.), the forestry measures system shall pay attention to measures to maintain and / or restore elements of natural dynamics. Felling shall not simulate rare catastrophic disturbances (for example, large fires on a vast area, characterized by the death of almost the entire forest stand).

Indexes:

- Forestry regulations (forest management materials) and / or forest exploitation project (felling project).
- interview with organization specialists and forest managers;
- documents justifying the ways of felling;
- field inspection.

4.6.3.6. **Indicator 6.** When withdrawing of logging areas, natural landscape boundaries shall be taken into account.

Indexes:

- interview with organization specialists;
- materials for withdrawing of logging areas (forest declarations, logging tickets or orders);
- field inspection.

4.6.3.7. **Indicator 7.** The organization shall have a program for the transition from solid felling of large size to narrow clear-cutting solid felling (and / or solid felling of a small area (up to several hectares)), to gradual (multicast) felling and / or selective felling in forest types where it is advisable.

Indexes:

- Forestry regulations (forest management materials) and / or forest exploitation project (felling project).
- program for the transition from solid felling;
- proportion of not solid felling;
- mainly winter felling, the prohibition of the use of caterpillar vehicles and other self-propelled machinery, the utilization of wood waste and rejected items;
- documents confirming the execution of the program;
- Interview with interested parties.

3.B) Securing sustainable fish stocks by conducting fishing activities at a level corresponding to the dynamics of the fish population.

4.6.3.8. **Indicator 8.** The certified organization is obliged to provide conditions for preservation of endless fishing and avoidance of excessive use of resources.

Indexes:

- quotas for commercial catching of a biological resource;
- seasonal restrictions on fishing
- holding or participating in the financing of bio-melioration works, inclusive securing the required level of reproduction of the biological resource in use
- on-board logbooks;
- internal ships documentation;
- interview with the company management;
- survey of regulatory organizations.

4.6.3.9. **Indicator 9.** The certified organizations obliged to provide conditions for monitoring compliance with the level of maximum additional catch of fish resources in the Russian EEZ.

Indexes:

- quotas for commercial catch of a biological resource;
- on-board logbooks;
- internal ships documentation;
- interview with the company management;
- survey of regulatory organizations.

4.6.3.10. **Indicator 10.** The certified organization must take all measures to minimize the environmental impact of fishing operations which shall be managed to maintain the structure, productivity, functioning and diversity of the ecosystem on which the fishery company depends.

Indexes:

- list of organizational measures to reduce the impact on the environment;
- quotas for commercial catch of a biological resource;
- on-board logbooks;
- internal ships documentation;
- interview with the company management;
- survey of regulatory organizations.

4.6.3.11. **Indicator 11.** The organization is obliged to implement effective control systems allowing flexible reaction for changing fishing conditions.

Indexes:

- list of organizational measures to reduce the impact on the environment;
- quotas for commercial catch of a biological resource;
- holding or participating in the financing of bio-melioration works, inclusive securing the required level of reproduction of the biological resource in use
- on-board journals;
- internal ships documentation;
- interview with the company management;
- survey of regulatory organizations.

3.B) Ensuring the safety of oil production and of hydrocarbons transportation.

4.6.3.12. **Indicator 12.** The certified organization performs business activities with an understanding and acceptance of its responsibility for environmental pollution during the development of the Arctic shelf.

Indexes:

- internal documentation of companies;
- a list of measures to prevent environmental pollution;
- interview with the company management;
- survey of regulatory organizations.

4.6.3.13. **Indicator 13.** The certified organization is obliged to comply with environmental norms and requirements established by the legislation of the Russian Federation, international legal acts in the field of environmental protection and legislation of the countries of presence.

Indexes:

- internal documentation of companies;
- a list of measures to prevent environmental pollution;
- interview with the company management;
- survey of regulatory organizations.

4.6.3.14. **Indicator 14.** The certified organization shall take active steps to realize all possible preventive actions to prevent negative impact on the environment.

Indexes:

- internal documentation of companies;
- list of measures to prevent environmental pollution;
- interview with the company management;
- survey of regulatory organizations.

4.6.3.15. **Indicator 15.** The management of the organization shall observe the priority of preventive measures to avoid negative impact before the measures for consequence liquidation of such impact.

Indexes:

- internal documentation of companies;
- list of measures to prevent environmental pollution;
- interview with the company management;
- interview with regulatory organizations.

4.6.3.16. **Indicator 16.** The management of the organization shall be guided by minimizing the risks of negative impact on the environment at all stages of the investment project implementation.

Indexes:

- internal documentation of companies;
- list of measures to prevent environmental pollution;
- interview with the company management;
- survey of regulatory organizations.

4.6.3.17. **Indicator 17.** The certified organization shall constantly improve the systems of environmental management and Indexes in the field of environmental protection.

Indexes:

- internal documentation of companies;
- list of measures to prevent environmental pollution;
- interview with the company management;
- interview with regulatory organizations.

4.6.3.18. **Indicator 18.** The certified organization shall constantly raise the level of environmental competence and awareness of its employees.

Indexes:

- internal documentation of companies;
- list of training courses;
- lists of participants;
- programs of courses;
- interview with the company management;
- interview with regulatory organizations.

4.6.3.19. **Indicator 19.** The certified organization shall ensure the availability of information related to its activities in the field of environmental protection and decisions made in this area.

Indexes:

- internal documentation of companies;
- publications, press releases, reports on the activities of the PR service;
- interview with the company management;
- interview with regulatory organizations.

4.6.4. **Criterion 4.** The certified organization shall take into account the presence of representative (reference) sections of ecosystems on the territory of its business activity that must be allocated and protected in their natural state and mapped with regard to scale and intensity of business activities, as well as uniqueness of the resources involved in the sphere of economic activity.

4.6.4.1. **Indicator 1.** Within the territory of the organization, a network of existing representative (reference) areas of ecosystems shall be maintained to ensure the preservation of the biodiversity of landscapes, basins, ecosystems, habitats and species of local flora and fauna.

Indexes:

- a list of types of representative (reference) parts of ecosystems;
- cartographic materials;
- interview with organization specialists.

4.6.4.2. **Indicator 2.** It shall be scientifically established, can the existing net of protected areas / water zones fully include all types of ecosystems and landscapes occurring on the territory; in other words, is the net representative.

Indexes:

- Materials of scientific research;
- analytical documents with cartographic materials;
- interview with organization specialists;
- interview with independent experts.

4.6.4.3. **Indicator 3.** It shall be established, how fully the existing net of protected areas of the territories ensures the preservation of regionally and locally rare and endangered types of ecosystems.

Indexes:

- Materials of scientific research;
- analytical documents with cartographic materials;
- interview with organization specialists;
- interview with independent experts.

4.6.4.4. **Indicator 4.** The organization shall facilitate the work on identifying additional representative (reference) areas of ecosystems to fill gaps in the network of protected areas.

Indexes:

- documented materials of the organization converse with interested parties, namely, environmental organizations, scientific organizations, environmental experts, representatives of native people.

4.6.4.5. **Indicator 5.** Identified representative (reference) areas of ecosystems shall be described and marked on the maps of the exploited territories of the organization's internal documentation.

Indexes:

- Description of sites;
- cartographic materials.

4.6.4.6. **Indicator 6.** The identified representative (reference) sections of ecosystems shall have a regime of economic restrictions necessary for their preservation or maintenance. For voluntary protected sites, the organization must documentary demonstrate efforts to give such sites an official status, for example, contacting the competent authorities, supporting the efforts of other organizations including public ones.

Indexes:

- description of sites;
- cartographic materials;
- materials of correspondence with authorized organizations.

4.6.4.7. **Indicator 7.** The regime of these sites shall be respected regardless of whether they have an official status, they are in the process of registration or they are protected voluntarily.

Indexes:

- interview with organization employees;
- field inspection.

4.6.5. **Criterion 5.** The certified organization shall develop and implement written guidelines for: monitoring and minimizing the impact on the environment during the extraction of resources, logging, road construction and other mechanical disturbances; protection of water and biological resources.

4.6.5.1. **Indicator 1.** The enterprise shall have written instructions for employees aimed at reducing the degradation risk of the exploited resources that regulate what actions shall be avoided or whose consequences shall be minimized during the production cycle. An exception can be organizations engaged in the production of non-renewable resources. In this case the indicator requirement extends to renewable resources being present on the territory, such as fish, water, forest, etc.

Indexes:

- official regulations and written instructions of the organization;
- interview with organization specialists.

4.6.5.2. **Indicator 2.** Organization employees shall be familiar with the regulations and written instructions and undergo training on their practical use.

Indexes:

- official regulations and written instructions of the organization and their accessibility for the employees of the organization;
- documentation about training programs, advanced training courses, internships, etc.;
- interview with organization specialists; interview with organization employees.

5A) Specific criterion application for enterprises engaged in the extraction and use of renewable resources.

4.6.5.3. **Indicator 3.** The certified organization shall refuse to treat renewable resources as "cost-free resources" or "low-cost resources", as well as refuse the approval of "inexhaustibility" of renewable resources such as water, soil, forest, marine and biological resources. Thus, the certified organization shall conduct its business activity in such way that it does not exceed the speed of resource restoration and maintain the viability of ecosystems.

Indexes:

- internal documents of the organization describing environmental policy;
- strategy of reducing the use of natural resources in technological schemes
- amount of used natural resources per unit of production
- interview with organization management;
- interview with the organization employees;
- field observation.

4.6.5.4. **Indicator 4.** Management of the organization recognizes the need for civil liability for damage from the operation of economic facilities. When removing the facilities from economic exploitation, the organization shall take measures to restore the ecological parameters of systems which were on location of these facilities to the parameters at the beginning of business activity.

Indexes:

- internal documents of the organization describing environmental policy;
- reports on recultivation and conservation measures;
- interview with organization management;
- interview with the organization employees;
- field observations.

4.6.5.5. **Indicator 5.** Organization management recognizes the need to compensate the damage from toxic emissions and discharges into the environment by the rule "polluter pays", which ensures the dependence of amount of fee on emissions and discharges on their volume and on danger to the environment and public health.

Indexes:

- internal documents of the organization describing environmental policy;
- strategy to reduce the volumes of low concentrated flowing, the rejection of the principles of "dilution" of wastewater by natural water to the normative indexes,
- recordings of volumes of natural water used to "dilute" wastewater, as a natural resource consumed by the enterprise, having a corresponding cost.
- interview with organization management;
- interview with representatives of monitoring organizations.

4.6.5.6. **Indicator 6.** Management of the organization recognizes the need for integrated use of renewable resources.

Indexes:

- internal documents of the organization describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

4.6.5.7. **Indicator 7.** Management of the organization, if possible, adheres to harmless integration of economic facilities with ecosystems.

Indexes:

- internal documents of the organization describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

4.6.5.8. **Indicator 8.** The technological parameters of the organization production processes shall maximally correspond to "zero discharge" and "zero emission" principles.

Indexes:

- internal documents of the organization describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

5B) Specific criterion application for enterprises engaged in extraction and use of non-renewable resources.

4.6.5.9. **Indicator 9.** The certified organization shall be guided by scientifically based methods for managing the extraction of minerals and shall manage the extraction and use of non-renewable resources such as minerals and fossil fuel products, hydrocarbons, minimizing their depletion and preventing serious harm to the environment.

Indexes:

- expert opinions, reports, forecasts and other documents of scientific organizations containing the justification for need of development of deposits and for methods of development;
- development of technologies allowing to reduce the volumes of consumed energy and natural resources, to minimize waste, to participate or to finance R&D;
- internal documents of the organization describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

4.6.5.10. **Indicator 10.** Organization management recognizes the civil liability need for damage in exploration, development and exploitation of mineral deposits. When removing the facilities from economic exploitation, the organization shall take measures to restore the environmental system parameters which were on location of these facilities to the parameters at the beginning of business activity.

Indexes:

- internal documents reflecting the organization environmental policy;
- technological regulations, transport schemes;
- documentation approving the planned indicators of waste generation and emissions;
- lists of nature-restoration measures and reports on their performance;
- interview with of local population;
- interview with organization management;
- field inspection.

4.6.5.11. **Indicator 11.** The certified organization realizes all the technological possibilities for maximum withdrawal of the resource with minimal impact on the environment.

Indexes:

- internal documents reflecting the organization environmental policy;
- technological regulations, transport schemes;
- documentation approving the planned indicators of waste generation and emissions;
- interview with organization management;
- field inspection.

4.6.5.12. **Indicator 12.** The certified organization realizes all technological possibilities for excluding the losses of resource when withdrawing from subsoil, preparing transport and for transportation.

Indexes:

- technological regulations, transport schemes;
- documentation approving the planned indicators of waste generation and emissions;
- interview with of local population;
- interview with organization management;
- field inspection.

4.6.5.13. **Indicator 13.** The certified organization realizes all technological possibilities for restoration of rock pressure distribution at underground development of deposits.

Indexes:

- technological regulations, transport schemes;
- interview with organization management;
- field inspection.

4.6.5.14. **Indicator 14.** The certified organization realizes all technological possibilities for exclusion of permafrost thaw during the development of underground resources, the construction of industrial facilities, the laying of pipelines for various purposes, the transportation of minerals to the place of shipment to consumer or processing.

Indexes:

- technological regulations, transport schemes;
- design and construction documentation;
- EIA;
- interview with organization management;
- field inspection.

4.6.5.15. **Indicator 15.** Technological parameters of the production processes of the organization shall maximally correspond to "zero discharge" and "zero emission" principles.

Indexes:

- organization internal documents describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

4.6.5.16. **Indicator 16.** Management and owners of the organization must adhere to the principle of environmental protection imperative while the development of deposits.

Indexes:

- organization internal documentation reflecting its environmental policy;
- interview with organization management.

4.6.5.17. **Indicator 17.** Organization management recognizes the need for integrated use of non-renewable resources and for use to the maximum of integrated mineral resource development schemes.

Indexes:

- organization internal documents describing environmental policy;

- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

4.6.5.18. **Indicator 18.** Organization management recognizes the need to minimize the use of non-renewable resources in the Arctic zone.

Indexes:

- organization internal documents describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

4.6.5.19. **Indicator 19.** Organization management recognizes the need to use only the best available technologies.

Indexes:

- organization documents describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

5.C) Specific criterion application for enterprises engaged in oil and gas extraction.

4.6.5.20. **Indicator 20.** Organization management recognizes the responsibility of oil companies for environmental pollution during development of the Arctic shelf.

Indexes:

- organization internal documents describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

4.6.5.21. **Indicator 21.** The certified organization realizes all technological possibilities for observance of environmental norms and requirements established by legislation of the Russian Federation, international legal acts in the field of environmental protection.

Indexes:

- organization internal documents describing environmental policy;
- texts of the main normative acts of the Russian Federation in the field of environmental protection;
- technological regulations and transport maps of the organization;
- interview with organization management;

- interview with representatives of monitoring organizations.

4.6.5.22. **Indicator 22.** The certified organization realizes all technological possibilities for carrying out all possible preventive actions for exclusion of negative impact on the environment.

Indexes:

- organization internal documents describing environmental policy;
- texts of the main normative acts of the Russian Federation in the field of environmental protection;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

4.6.5.23. **Indicator 23.** The certified organization implements the priority of preventive measures to avoid negative impact before the measures for liquidation of the consequences of such impact.

Indexes:

- organization internal documents describing environmental policy;
- texts of the main normative acts of the Russian Federation in the field of environmental protection;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with representatives of monitoring organizations.

4.6.5.24. **Indicator 24.** In case when the organization causes unpreventable damage to biological resources as a result of its business activities in the Arctic seas, the organization pays compensation, the amount and conditions for compensation payment shall be determined by federal and regional regulations, the methodology shall be approved as a result of scientific justification, negotiations with the administration of the region and representatives of indigenous peoples residing on the territory.

Indexes:

- organization internal documents describing environmental policy;
- texts of the main normative acts of the Russian Federation in the field of environmental protection;
- methods for calculating compensation for unpreventable damage, protocols of negotiations with representatives of regional authorities and representatives of indigenous peoples;
- technological regulations and transport maps of the organization;
- interview with organization management;

- interview with representatives of monitoring organizations.

4.6.5.25. **Indicator 25.** Organization management recognizes the need for continuous improvement of security measures in the Arctic zone, prevention of accidents at fuel and energy complex facilities and other facilities with negative consequences for the Arctic environment.

Indexes:

- organization internal documents describing environmental policy;
- texts of the main normative acts of the Russian Federation in the field of environmental protection;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

5. D) Specific criterion application for enterprises engaged in shipping, ships servicing in ports, transportation of goods, including oil and gas.

4.6.5.26. **Indicator 26.** Organization management recognizes the need for ship-owners' liability for environmental pollution by ships.

Indexes:

- organization internal documents describing environmental policy;
- texts of the main normative acts of the Russian Federation in the field of environmental protection;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.27. **Indicator 27.** Organization management recognizes the necessity of obligatory insurance of environmental risks.

Indexes:

- organization internal documents describing environmental policy;
- texts with the main normative acts of the Russian Federation in the field of environmental protection;
- contracts with insurance companies;
- interview with organization management.

4.6.5.28. **Indicator 28.** Organization management recognizes the necessity of obligatory compliance with the provisions of Ch. 17 of the International Code for Ships Operating in Polar Waters (the Polar Code) set out in the Polar Code, including:

- provisions for the complete exclusion of operational waste discharges from ships in Polar Waters and providing on board of vessels navigating in Polar Waters of sufficient and appropriate equipment and devices for disposal and storage of waste during intended duration of sailings;
- provisions on the mandatory availability of environmental protection procedures in ship's Operational Manual and in Shipboard Oil Pollution Emergency Plan (SOPEP);
- provisions on regular training, environmental protection exercises and performance of vessel damage monitoring procedures for crew members of vessels floating in Polar Waters;
- provisions for equipment of vessels floating in Polar Waters and preparing their crews for effective control of damages and performance of a small repair of vessel hull;
- provisions for equipment of vessels floating in the Polar Waters with means for eliminating the effects of small fuel spills on the deck and along the vessel sides.

Indexes:

- organization internal documents describing environmental policy;
- texts of the main normative acts of the Russian Federation in the field of environmental protection;
- technical documentation of vessel;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.29. **Indicator 29.** Organization management recognizes the necessity of immediate informing the administration of the nearest seaport about cases of discharge of any harmful substances in the Arctic waters, including the waters of Arctic seaports, both from their own ship and from any other vessel, as well as of noticed pollutions.

Indexes:

- records of negotiations with port administrations;
- the logbook;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.30. **Indicator 30.** Organization management recognizes the need for availability and non-concealment of information about threat or occurrence of emergencies related to pollution of the Polar waters.

Indexes:

- records of negotiations with port administrations;
- the logbook;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.31. **Indicator 31.** Organization management takes all necessary measures to ensure minimum environmental stress during operation and port service of vessels.

Indexes:

- internal documents of the organization describing environmental policy;
- texts of the main normative acts of the Russian Federation in the field of environmental protection;
- technical documentation of the vessel;
- technological regulations and transport maps of the organization;
- Interview with the organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.32. **Indicator 32.** Organization management recognizes the need to completely prohibit the discharge of any kind of waste overboard.

Indexes:

- organization internal documents describing environmental policy;
- interview with organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.33. **Indicator 33.** Organization management recognizes the need to prohibit the burning of any kind of waste on board of vessel.

Indexes:

- organization internal documents describing environmental policy;
- interview with organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.34. **Indicator 34.** Organization management recognizes the need to prohibit the cleaning and painting of ship hulls, including underwater cleaning, without the permission of seaport captain.

Indexes:

- organization internal documents describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.35. **Indicator 35.** Organization management recognizes the need to completely prohibit the cleaning of ship's holds, decks and superstructures with the discharge of water overboard if the water is contaminated with oil products or other harmful substances.

Indexes:

- organization internal documents describing environmental policy;
- technological regulations and transport maps of the organization;
- Interview with the organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.36. **Indicator 36.** Organization management recognizes the need to prevent the carrying out of dispensing operations of vessels at a wind speed of 15 meters per second or more.

Indexes:

- organization internal documents describing environmental policy;
- technological regulations and transport maps of the organization;
- Interview with the organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.37. **Indicator 37.** Organization management recognizes the need to prevent the carrying out of dispensing operations of vessels without installing oil spill booms, alerting to apply counter oil spills and firefighting means.

Indexes:

- organization internal documents describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.38. **Indicator 38.** Organization management recognizes the need to provide icebreakers, polar class vessels, as well as all vessels transporting petroleum products or towing (pushing) barges carrying petroleum products, with

a set of equipment for realization of priority oil spill response activities, namely, equipment for fencing of oil stains on water and their collection from the surface of water.

Indexes:

- organization internal documents describing environmental policy;
- technological regulations and transport maps of the organization;
- technical documentation of the vessel;
- interview with organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.39. **Indicator 39.** Organization management recognizes the need for ship-owners of planned activities for the prevention and liquidation of fuel and oil spills during loading and unloading activities in the water areas of Arctic seaports and on approaches to them.

Indexes:

- organization internal documents describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with the organization employees;
- interview with representatives of monitoring organizations.

4.6.5.40. **Indicator 40.** Organization management recognizes the need for ship-owners to organize and carry out oil spill response operations by their own and/or attracted forces and means in the water areas of Arctic seaports and on approaches to them.

Indexes:

- organization internal documents describing environmental policy;
- technological regulations and transport maps of the organization;
- interview with organization management;
- interview with the organization employees; Interview with representatives of monitoring organizations.

5.E) Specific criterion application for enterprises engaged in forestry.

4.6.5.41. **Indicator 41.** When choosing method and timing of forest harvesting and forestry measures, the type of forest and the type of soil conditions shall be taken into account in order to minimize the impact on soils and vegetation cover due to mechanical damage, compaction and water logging of soils, development of erosion processes, cleaning of worked-out areas from wood residues and their disposal. Independent performance or participating in the financing of

reforestation and bio-melioration works (including sanitation felling, fire prevention, etc.).

Indexes:

- official regulations and written instructions of the organization;
- materials for withdrawing of logging areas (forest declarations, logging tickets or orders) with technological maps;
- materials of cutting sites inspection;
- work schedule
- interview with organization specialists;
- field inspection.

4.6.5.42. **Indicator 42.** The haulage of wood along water reservoirs, channels of small rivers and streams, including intermittent ones is not allowed.

Indexes:

- official regulations and written instructions of the organization;
- materials for withdrawing of logging areas (forest declarations, logging tickets or orders) with technological maps;
- field inspection.

4.6.5.43. **Indicator 43.** Storage of POL and parking of technical means in water protection zone and on ice of watercourses and reservoirs are not allowed.

Indexes:

- official regulations and written instructions of the organization;
- materials for withdrawing of logging areas (forest declarations, logging tickets or orders) with technological maps;
- materials of cutting sites inspection;
- interview with organization specialists;
- field inspection.

4.6.5.44. **Indicator 44.** Construction and exploitation of roads drainage system shall exclude bogging and flooding of soils.

Indexes:

- official regulations and written instructions of the organization;
- projects for the construction of roads and hydro-technical structures, cartographic material;
- interview with the specialists of the organization and work executors;
- field inspection.

4.6.5.45. **Indicator 45.** Construction of roads and bridges shall not disrupt sites of particular importance to life cycles of animals (e.g., avoiding sites that are environmentally important for them, limiting the number of river crossings,

stopping the construction of roads during spawning or preserving natural migration routes of animals).

Indexes:

- official regulations and written instructions of the organization;
- forest inventory materials, cartographic material;
- road and bridge construction projects and cartographic materials;
- materials for withdrawing of logging areas (forest declarations, logging tickets or orders) with technological maps;
- interview with organization specialists;
- survey of fish inspectors and hunting inspectors;
- field inspection.

4.6.5.46. **Indicator 46.** Logging, other forestry activities, construction and exploitation of forest roads, hydro-technical structures (including bridges) and the operation of machinery and equipment shall not lead to contamination of nearby water reservoirs and adjacent water protection zones.

Indexes:

- official regulations and written instructions of the organization;
- forestry management materials, cartographic material;
- interview with employees of the organization;
- interview with native population;
- interview with specialists of environmental protection and surveillance authorities;
- field inspection.

4.6.5.47. **Indicator 47.** Logging, other forestry activities, construction of roads and hydraulic structures shall not violate the regime of protected areas.

Indexes:

- official regulations and written instructions of the organization;
- materials for withdrawing of logging areas (forest declarations, logging tickets or orders) with technological maps;
- materials on protected areas, including cartographic ones;
- interview with the specialists of the organization and work executors;
- field inspection.

4.6.5.48. **Indicator 48.** Technological processes and technical means shall be applied in such a way as to minimize damage to trees left standing on the root on felling areas, as well as to trees in adjacent forest areas.

Indexes:

- official regulations and written instructions of the organization;

- materials for withdrawing of logging areas (forest declarations, logging tickets or orders) with technological maps;
- interview with the specialists of the organization and the work executors;
- field inspection.

4.6.6. **Criterion 6.** Management system in a certified organization shall promote the development and implementation of environmentally friendly non-chemical methods for ensuring the environmental safety of production (for example: in forestry - the refusal to use pesticides, in marine technologies to prevent the consequences of oil spills - refusal to use dispersants, etc.). In case of the use of chemicals, appropriate equipment shall be used and personnel must undergo appropriate training to minimize human health and environment risks.

Note: this criterion applies mainly to forestry enterprises.

6A) Specificity of application of the criterion for enterprises engaged in forestry.

4.6.6.1. **Indicator 1.** The organization shall have a strategy for use of chemical and biological agents to control irruptions of herbivorous animals and forest diseases.

Indexes:

- evidence of compliance with the FSC on Pesticide Policy FSC-GUI-30-001 VERSION 2-0 EN;
- forestry regulations (forest management materials) and / or forest exploitation project (felling project).
- strategy for use of chemical and biological agents to control irruptions of herbivorous animals and forest diseases;
- dynamics of areas damaged by animals and affected by diseases;
- interview with organization specialists.

4.6.6.2. **Indicator 2.** In the strategy of protection from irruptions of herbivorous animals and forest diseases, the application of biological methods of forest protection shall have an advantage in comparison with chemical methods.

Indexes:

- strategy for use of chemical and biological agents to control irruptions of herbivorous animals and forest diseases;
- interview with organization specialists.

4.6.6.3. **Indicator 3.** The strategy shall focus on the early detection of such irruptions and on preventive measures.

Indexes:

- strategy for use of chemical and biological agents to control irruptions of herbivorous animals and forest diseases;
- interview with organization specialists.

4.6.6.4. **Indicator 4.** Extra dangerous pesticides (chemical plant protection agents) shall not be used, namely:

- pesticides of type 1A and 1B according to classification of the World Health Organization;
- organochlorine pesticides;
- pesticides that are stable, toxic or whose degradation products remain biologically active and accumulate in food chains, causing side effects;
- any other pesticides banned in accordance with international agreements

Indexes:

- documentation regulating use of pesticides; documentation about use;
- interview with organization specialists;
- field inspection.

4.6.6.5. **Indicator 5.** Pesticides shall be used only in cases when the use of other non-chemical methods to control herbivorous animals and forest diseases is not effective.

Indexes:

- log book on use of chemical and biological means of protection;
- dynamics of areas damaged by animals and affected by diseases;
- interview with organization specialists;
- field inspection.

4.6.6.6. **Indicator 6.** Pesticides shall be used upon permission of authorized institutions in accordance with established rules.

Indexes:

- list of permitted pesticides;
- EIA and / or EE; sanitary forest regulations;
- SanPIN 1.2.1077-01 Hygiene Requirements for pesticide and agrochemical storage, usage and transportation;
- documentation about use;
- interview with employees of the organization.

4.6.6.7. **Indicator 7.** Use of fertilizers in forestry shall be allowed only in areas of forest plantations, in forest nurseries and while forestation of non-forest lands (for example, abandoned agricultural lands), as well as while recultivation of degraded non-forest lands.

Indexes:

- documentation, including justification for fertilizers application;
- interview with organization specialists;
- field inspection.

4.6.6.8. **Indicator 8.** The safety regulations (including training and medical examination of employees) for working with chemical products must be observed.

Indexes:

- safety instructions;
- safety log book;
- log book on control of medical examination;
- interview with organization employees;
- field inspection.

4.6.7. **Criterion 7.** In the certifiable organization, chemicals, containers, liquid and solid inorganic wastes, including POL, shall be removed from a territory of carrying out of business activities to specially equipped places in an environmentally acceptable way.

4.6.7.1. **Indicator 1.** In the certified organization, chemicals and containers of them, liquid and solid inorganic waste, including POL and flammable liquids, shall be stored and disposed of in accordance with established instructions and rules.

Indexes:

- rules and instructions for handling, disposal and storage of chemicals and containers of them, of liquid and solid inorganic waste, including POL;
- documentation for storage and disposal of chemicals wastes and containers of them;
- interview with organization specialists;
- field inspection.

4.6.7.2. **Indicator 2.** In the certifiable organization, filling and changing of oil in machines and equipment, maintenance of machinery and equipment shall be carried out in specially designated for this purpose places, where the risk of environmental pollution is minimal, or in specialized organizations.

Indexes:

- instructions for exploitation of machinery and equipment;
- contracts with specialized organizations for maintenance of machinery and equipment;
- interview with organization employees;
- field inspection.

4.6.7.3. **Indicator 3.** In the certified organization the soil and water protection from pollution shall be carried out during storage and refueling of POL.

Indexes:

- instructions for disposal and storage of chemicals and containers of them, liquid and solid inorganic waste, including POL;
- interview with organization's specialists;
- field inspection.

4.6.7.4. **Indicator 4.** In the certified organization the places of storage and warehousing of chemicals, POL and waste shall be equipped in accordance with safety regulations.

Indexes:

- safety regulations for the storage and warehousing of chemicals, POL and wastes;
- instructions for disposal and storage of chemicals and containers of them, liquid and solid inorganic waste, including POL;
- interview with organization specialists;
- field inspection.

4.6.7.5. **Indicator 5.** In the certifiable organization, production and household waste shall be disposed of in accordance with established rules.

Indexes:

- instructions for disposal and storage of chemicals and containers of them, liquid and solid inorganic waste, including POL;
- interview with organization specialists;
- field inspection.

4.6.7.6. **Indicator 6.** In the certified organization, waste from exploitation of machinery and equipment must be removed from the territory at the end of the work; if the production process takes place on a ship, offshore drilling, in tundra, the accumulation, storage and disposal of waste shall be regulated by internal documents of the organization.

Indexes:

- instructions for disposal and storage of chemicals and containers of them, liquid and solid inorganic wastes, including POL;
- interview with organization specialists;
- field inspection.

4.6.7.7. **Indicator 7.** In the certified organization, if this is economically and technically justified, in the operation of machinery and equipment shall be used lubricants and fuel that do not harm the environment.

- information demonstrating the technical feasibility of acquisition and prices for fuels and lubricants that are not harmful to the environment;

- specification of POL;
- instructions for exploitation of machinery and equipment;
- interview with organization specialists;
- field inspection.

4.6.8. **Criterion 8.** Use of invasive species the certified organization shall be thoroughly controlled and actively monitored to avoid adverse environmental consequences. Use of genetically modified organisms is prohibited.

4.6.8.1. **Indicator 1.** Invasive plants and animals of the certified organization shall be used only to maintain plantations and artificial populations from invasive species, as well as on plantations and nursery gardens.

Indexes:

- list of invasive species present in the territory;
- contents of scientific publications and practical experience in ecology and use of the invasive species;
- correspondence, materials of consultations with specialists in this field;
- interview with organization specialists.

4.6.8.2. **Indicator 2.** Accessible scientific information and practical experience on behavior and ecological risks associated with use of invasive plants and animals in actual or related natural conditions shall be collected for all invasive species present on the territory used by the organization.

Indexes:

- list of invasive species present in the territory;
- contents of scientific publications and practical experience in ecology and use of the invasive species;
- correspondence, materials of consultations with specialists in this field;
- interview with organization specialists.

4.6.8.3. **Indicator 3.** In case of presence and / or commercial use of invasive plants and animals on its territory, the organization shall take all possible measures to prevent their uncontrolled spread.

Indexes:

- list of invasive species present in the territory;
- contents of scientific publications and practical experience in ecology and use of the invasive species;
- correspondence, materials of consultations with specialists in this field;
- interview with organization specialists.

4.6.8.4. **Indicator 4.** The organization shall not use genetically modified organisms in all areas of the Arctic zone.

Indexes:

- interview with organization specialists;
- interview with representatives of competent environmental authorities.

8. A) Specificity of application of the criterion for organizations engaged in aquaculture.

4.6.8.5. **Indicator 5.** The certified organization shall place fish-breeding areas located in natural reservoirs, at a safe distance from objects and structures, the exploitation of which has an increased risk of contamination of water body area with harmful substances.

Indexes:

- list of cultivated species and their local distribution on the territory;
- prevention of invasive effects of cultivated species on local natural complexes;
- action plan for minimizing the organic pollution of operated water areas;
- performing or participating in the financing of R&D on improving aquaculture technologies in the Arctic conditions;
- contents of scientific publications and practical experience in ecology and use of referred species;
- correspondence, materials of consultations with specialists in this field;
- interview with representatives of competent environmental authorities.
- field inspection.

4.6.8.6. **Indicator 6.** The management of a certified organization recognizes the need for increased control at aquaculture enterprises of situations related to fish diseases, organization and implementation of necessary veterinary and sanitary measures on fish farms.

Indexes:

- Program of prevention, control and protection from invasive and infectious diseases;
- Permission to operate only for fully integrated aquaculture enterprises;
- Mandatory vaccination of aquaculture facilities;
- Biological Waste Management Program;
- performing or participating in the financing of R&D on the development of new methods for the prevention and control of fish diseases in aquaculture conditions;
- list of cultivated species and their local distribution on the territory;
- plans and documents on execution of veterinary and sanitary measures;
- interview with organization specialists;

- interview with representatives of competent environmental authorities;
- field inspection.

4.6.8.7. **Indicator 7.** Management of the certified organization recognizes the need for transportation of planting material only at the stage of fish roe and for strict adherence to anti-epidemiological norms.

Indexes:

- list of cultivated species and their local distribution on the territory;
- technological maps for transportation of planting material;
- plans and documents on the implementation of veterinary and sanitary measures at the transportation stage;
- interview with organization specialists;
- interview with representatives of competent environmental authorities;
- field inspection.

4.6.8.8. **Indicator 8.** Management of the certified organization recognizes the need to ensure the cleanliness of aquaculture facilities in context of GMO of breeding herd, the prohibition of antibiotics and hormonal growth stimulants use, and the exclusion of entering to the natural ecological system of non-indigenous organisms.

Indexes:

- plans and documents on execution of veterinary and sanitary measures;
- list of veterinary drugs prohibited for use;
- interview with organization's specialists;
- interview with representatives of competent environmental authorities;
- field inspection.

4.6.8.9. **Indicator 9.** Management of the certified organization recognizes the need for use of technologies that help reduce the biogenic stress on the environment.

Indexes:

- list of cultivated species and their local distribution on the territory; technological maps;
- plans and documents on the execution of veterinary and sanitary measures;
- interview with organization's specialists, interview with representatives of competent environmental authorities;
- field inspection.

4.6.8.10. **Indicator 10.** Management of the certified organization recognizes the need to update classification of aquaculture facilities, types of work in the field of fish farming, facilities used to carry out this activity.

Indexes:

- list of cultivated species and their local distribution on the territory;
- materials of market researches, consumer preferences, etc .;
- interview with organization specialists.

4.6.8.11. **Indicator 11.** Management of the certified organization recognizes the need to maintain an appropriate level of research to identify economically efficient raw materials, to conduct selective and breeding work, to develop and test feed formulas and new feeding methods.

Indexes:

- records of negotiations with research organizations;
- financing of scientific research
- contents of completed studies;
- patents and other documents on the protection of the results of intellectual activity in the field of selective and breeding work, of development and testing of feed formulas and new feeding methods, of vaccines for the prevention of diseases;
- interview with organization specialists.

4.6.8.12. **Indicator 12.** Management of the certified organization recognizes the need for development of a scientific and production base and a sufficient number of qualified specialists.

Indexes:

- records of negotiations with research organizations;
- contents of completed studies;
- titles of program of advanced training courses for specialists, lists of educated personnel, calendar plans for courses;
- interview with organization specialists.

8. B) Specificity of application of the criterion for organizations engaged in the field of creation of forest plantations.

4.6.8.13. **Indicator 13.** The organization shall have a long-term (for a rotation period) project for the creation and cultivation of plantations, which represents objectives of their creation, including preservation of natural biodiversity and/or restoration of natural forests.

Indexes:

- EIA and/or environmental expertise of the project for the creation and cultivation of plantations;
- project for the creation and cultivation of plantations;
- plans for the preservation of natural biodiversity and/or restoration of natural forests;
- interview with organization management;
- field inspection.

4.6.8.14. **Indicator 14.** The structure of the plantations and their location shall contribute to the preservation, maintenance and if needed to the restoration of ecological and social value of natural forests of the given area.

Indexes:

- EIA and/or environmental expertise of the project for the creation and cultivation of plantations;
- project for the creation and cultivation of plantations;
- maps with plantations, natural forests, water preserving zones, key habitats and ecological corridors;
- plans for the preservation of natural biodiversity and/or restoration of natural forests;
- interview with organization management;
- field inspection.

4.6.8.15. **Indicator 15.** The size and structure of individual economic units of the plantation shall be designed taking into account the structure of the natural ecosystems of the given region.

Indexes:

- EIA and/or environmental expertise of the project for the creation and cultivation of plantations;
- project for the creation and cultivation of plantations;
- maps with plantations, natural forests, water preserving zones, key habitats and ecological corridors;
- plans for the preservation of natural biodiversity and/or restoration of natural forests;
- interview with organization management;
- field inspection.

4.6.8.16. **Indicator 16.** Forest plantations are created preferably on the land plots disturbed as a result of business activity of the previous periods, on which the natural restoration of the forest is impossible.

Indexes:

- EIA and/or environmental expertise of the project for the creation and cultivation of plantations;
- project for the creation and cultivation of plantations;
- plans for the preservation of natural biodiversity and/or restoration of natural forests;
- interview with organization management;
- field inspection.

4.6.8.17. **Indicator 17.** When designing plantations, the landscape features and the needs of local residents shall be taken into account (for example, in regards to hunting, fishing, gathering berries and mushrooms).

Indexes:

- EIA and/or environmental expertise of the project for the creation and cultivation of plantations;
- project for the creation and cultivation of plantations;
- interview with organization management;
- field inspection.

4.6.8.18. **Indicator 18.** The monitoring of the course of growth, changes in reserves and state of the species of wood which are utilized in the plantation forestry shall be carried out.

Indexes:

- EIA and/or environmental expertise of the project for the creation and cultivation of plantations;
- project for the creation and cultivation of plantations;
- materials of the plantation plants growth monitoring;
- interview with organization management;
- field inspection.

4.6.8.19. **Indicator 19.** The invasive plants shall be used only for the purpose of growing seedlings or “Christmas trees” for sale in forest nurseries.

Indexes:

- EIA and/or environmental expertise of the project for the creation and cultivation of plantations;
- project for the creation and cultivation of plantations;
- materials of the plantation plants growth monitoring;
- reports on the sale of seedlings or finished seasonal products;
- interview with organization management;
- field inspection.

4.6.8.20. **Indicator 20.** The monitoring of the invasive plants shall be carried out to identify their inclinations towards uncontrolled spreading, cases of extremely high morbidity and mortality rates, outbreaks of herbivores and forest diseases, and their negative impact on local natural ecosystems.

Indexes:

- EIA and/or environmental expertise of the project for the creation and cultivation of plantations;
- project for the creation and cultivation of plantations;
- materials of the plantation plants growth monitoring;
- materials of scientific articles, applied researches, etc.;
- reports on the sale of seedlings or finished seasonal products;
- interview with organization management;
- field inspection.

4.6.8.21. **Indicator 21.** In case of determination of a negative impact of invasive plants on the environment, the measures for elimination of these consequences shall be taken.

Indexes:

- EIA and/or environmental expertise of the project for the creation and cultivation of plantations;
- project for the creation and cultivation of plantations;
- materials of the plantation plants growth monitoring;
- list of measures on elimination of the negative impact of invasive plants on the environment;
- interview with organization management;
- field inspection.

4.6.8.22. **Indicator 22.** Prior to the the large-scale utilization of invasive plants, it shall be determined on the basis of local experiments and/or existing scientific and practical experience that they are environmentally adapted to local conditions, not inclined to uncontrolled spreading and do not adversely affect other ecosystems.

Indexes:

- EIA and/or environmental expertise of the project for the creation and cultivation of plantations;
- project for the creation and cultivation of plantations;
- materials of the plantation plants growth monitoring;
- reports on carried out field experiments;
- interview with organization management;

- field inspection.

4.6.8.23. **Indicator 23.** When creating plantations, the organization must ensure the restoration of natural forest cover on an equivalent area of degraded lands or lands which lost their forest cover (if any) within the same territorial management unit.

Indexes:

- project for the creation and cultivation of plantations;
- list of lands which lost their forest cover with cartographic materials;
- interview with organization management;
- field inspection.

4.6.8.24. **Indicator 24.** The effect of plantation cultivation on the state of soils shall be monitored.

Indexes:

- project for the creation and cultivation of plantations;
- reports on soil quality laboratory testing;
- materials of the plantation plants growth monitoring;
- list of measures on elimination of the negative impact of invasive plants on the environment;
- interview with organization management;
- field inspection.

4.6.8.25. **Indicator 25.** The effect of plantation cultivation on changes in the quality and quantity of water and distribution of the streamflow shall be monitored.

Indexes:

- project for the creation and cultivation of plantations;
- materials of the plantation plants growth monitoring;
- list of measures on elimination of the negative impact of invasive plants on the environment;
- interview with organization management;
- field inspection.

4.6.8.26. **Indicator 26.** The creation of plantations in water preserving zones is unacceptable.

Indexes:

- list of water preserving zones with cartographic materials;
- interview with organization management;
- field inspection.

4.7. Principle of planned development of Arctic territories. In its activity, the certified organization shall be guided by long-term development plans, which shall be drawn up in writing, taking into account the development strategy of the region, as well as taking into account the scale and intensity of works carried out. These plans shall be performed and clarified in a timely manner. It shall have clearly determined the long-term objectives and tasks of carrying out business activities, as well as means of their achievement.

4.7.1. **Criterion 1.** When planning the productions development in the Arctic zone, the certified organization shall be guided by the eco-efficiency of developing productions. Eco-efficiency shall be achieved through the provision of competitively priced goods and services that meet the needs of consumers and improve the quality of life, with a constant reduction of environmental impact and reduction in energy and material consumption throughout the whole life cycle up to the level corresponding to the carrying capacity of Earth.

4.7.1.1. **Indicator 1.** The certified organization shall plan for the maximum technologically possible reduction of the usage of natural resources and material consumption of goods and services.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- interview with organization management.

4.7.1.2. **Indicator 2.** The certified organization must plan for the maximum technologically possible reduction of the energy content of goods and services.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- energy audit materials;
- interview with organization management.

4.7.1.3. **Indicator 3.** The certified organization shall plan for the maximum technologically possible reduction in the dispersion of toxic substances, both in the production process and as a result of the usage of the production products by the consumer.

Indexes:

- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- interview with organization management.

4.7.1.4. **Indicator 4.** The certified organization shall plan for the maximum technologically possible expansion of volumes of secondary processing of materials.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- interview with organization management.

4.7.1.5. **Indicator 5.** The certified organization shall plan for the maximum technologically possible expansion of the sustainable use of renewable resources (for example, the repeated use of circulating water in cooling loops, the multiple use of natural sorbents, etc.).

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- interview with organization management.

4.7.1.6. **Indicator 6.** The certified organization shall plan for the maximum technologically possible extension of the service life of goods and products being produced and used in the Arctic zone.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- interview with organization management.

4.7.1.7. **Indicator 7.** The certified organization shall plan for the maximum technologically possible increase in the serviceability of goods and services.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;

- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- interview with organization management.

4.7.2. **Criterion 2.** When conducting work in the Arctic zone, the enterprise shall have a continuously updated plan of action to use all opportunities to reduce the company's environmental impact. There is a number of practical tools and approaches that are developed and being developed with a purpose to help the enterprise to improve the environmental performance of its work.

4.7.2.1. **Indicator 1.** The certified organization shall plan for the continuous application of a single preventive strategy for environmental protection with regard to processes, goods and services, which in fact is an organizational system for cleaner production. Cleaner production consists in more efficient use of natural resources and in such a manner leads to minimization of waste generation and pollution, as well as to reducing risks to human health and safety. This strategy allows solving the problems at the source of their formation rather than tackle them at the end of the production process. Namely:

- with regard to processes, the cleaner production includes the preservation of raw materials and energy, eliminating the use of toxic raw materials and the reduction of quantities and toxicity of all emissions and wastes;
- with regard to goods, net clearer production includes a reduction in the negative impact of the product on the environment throughout its whole life cycle, starting from the extraction of raw materials used for its production up to it's final disposal;
- with regard to services, the cleaner production strategy focuses on bringing the care of the environment to the processes of development and provision of services.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- participation in the financing of research and scientific and technological development programs aimed at studying the features of Arctic natural systems and improving the applied technologies;
- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- Goods Life-Cycle Assessment;
- interview with organization management.

4.7.2.2. **Indicator 2.** The certified organization shall integrate environmental accounting practice into its activities as fully as possible. The objective of environmental accounting is to provide organizations with information necessary to understand the full range of their environmental costs and to take these costs into account when making decisions. Environmental costs are costs incurred in connection with or in the event of prevention of violations of environmental laws and standards and company policies, as well as:

- the cost of resources directly related to production, and those that are required for the functioning of the enterprise as a whole, incl. for waste disposal;
- the cost of waste processing and disposal costs;
- the cost of bad environmental reputation;
- the cost of compensation and remediation measures;
- the amount of insurance premiums paid out for environmental risks.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- environmental risk assessment materials;
- interview with organization management.

4.7.2.3. **Indicator 3.** The certified organization shall integrate the practice of Life-Cycle Assessment (LCA) into its activities as fully as possible. The Life-Cycle Assessment is the collection of information, comparison and assessment of input flows, outflows, and possible environmental impacts throughout the whole life cycle of the product. The rule of LCA can assist in:

- identifying opportunities to improve the environmental aspects of products in different moments of its life cycle;
- informing employees of industrial, state and non-governmental organizations entitled for making decisions (for example, in strategic planning, prioritizing, designing and redesigning products or processes);
- selecting appropriate environmental performance Indexes, including measurement methods;
- marketing (for example, by application of an environmental claim related to the eco-labeling system or declaration of ecological cleanness of products);

- LCA addresses environmental aspects and potential environmental impacts, i.e. usage of resources and environmental consequences of release through the life cycle of the product from the acquisition of raw materials, production, usage, decommissioning, processing and disposal.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- materials of Goods Life-Cycle Assessment;
- interview with organization management.

4.7.2.4. **Indicator 4.** The certified organization shall integrate environmental friendly design technologies into its activities, namely, the design and construction of machines, buildings, facilities for the Arctic zone shall be carried out taking into account the requirements for the protection of the natural environment of the Arctic zone and the need to carry out measures for the restoration of renewable natural resources.

Indexes:

- project documentation of the organization;
- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- interview with organization management.

4.7.2.5. **Indicator 5.** The certified organization shall plan and implement the concept of 3R (Reduce, Reuse, Recycle) in its activities. The priority of the “3R” policy and the increase in the efficiency of resources use are related to the established hierarchy of priorities for waste management:

- Reduce of waste production (Reduce)
- Reuse of products (Reuse)
- Recycle.

The waste management hierarchy indicates the order of preferences for taking measures to reduce and regulate waste.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- reports on the analysis of potentially applicable technologies, rationale for the choice of technologies;
- list of industrial wastes of the organization;

- interview with organization management.

4.7.3. **Criterion 3.** When conducting work in the Arctic zone, the enterprise shall have a continuously updated plan for management of waste as of technogenic resources.

4.7.3.1. **Indicator 1.** The certified organization shall recognize the priority of rational environmental management.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- interview with organization management.

4.7.3.2. **Indicator 2.** The certified organization shall recognize the need for management of waste as of secondary resources.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- interview with organization management.

4.7.3.3. **Indicator 3.** The certified organization working in the mining complex shall recognize the need for conservation of waste rock piles of overburden grounds and tailings in order to create technogenic deposits of raw materials for use by future generations.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- interview with organization management.

4.7.3.4. **Indicator 4.** The certified organization shall recognize the need for centralized management of waste.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- interview with organization management.

4.7.3.5. **Indicator 5.** The certified organization shall recognize the need and to understand the prohibition on the dumping of waste in the Arctic zone.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- interview with organization management.

4.7.3.6. **Indicator 6.** When planning production activities, the certified organization shall recognize the need for removal of waste from the Arctic zone.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- interview with organization management.

4.7.3.6. **Indicator 7.** The certified organization shall develop a waste management plan at the stage of design of the commercial facility.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- interview with organization management.

4.7.3.8. **Indicator 8.** When planning production activities, the certified organization shall integrate the differential regulation of the waste streams management.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- interview with organization management;

4.7.4. **Criterion 4.** The development plan (other document of internal long-term planning of activities) and supporting documents shall contain:

A) the tasks of management;

B) a description of the resources to be used, environmental constraints, pattern of the environmental management, land use and land ownership, socio-economic conditions, as well as the pattern of use of adjacent territories;

C) a description of the management system for the utilized natural resources, based on environmental researches and information obtained as a result of the inventory of resources;

D) the rationale for the level of the annual quota of resources used and selection of types of biological resources to be harvested;

E) conditions for monitoring the dynamics of changes in the state of the resource (increment or depletion);

F) environmental safety measures based on the results of environmental impact assessment;

G) plan for identification and protection of rare and endangered species;

H) maps describing the location of the used resources, including the boundaries of specially protected areas, planned economic activities;

l) description and rationale for the technologies used and methods of development, extraction, preparation, processing and usage of resources and appropriate technics and equipment.

4.7.4.1. **Indicator 1.** The development plan of the organization shall contain a description of all extracted resources of the used territory.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- description of the usable territories with a list of resources, geographical conditions and natural features;
- interview with the organization management.

4.7.4.2. **Indicator 2.** The development plan shall contain a general description of natural conditions of the territory (geographic, geological, hydrological, soil, animal and plant world), including environmental constraints.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- description of the usable territories with a list of resources, geographical conditions and natural features;
- interview with organization management.

4.7.4.3. **Indicator 3.** The development plan shall contain the rationale for the system used for the extraction and reproduction of resources (in the case of usage of renewable resources).

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- description of the usable territories with a list of resources, geographical conditions and natural features;
- results of the possibility of technologies application analysis;
- expert findings on the acceptability of the application of technologies in a given territory;
- interview with organization management.

4.7.4.4. **Indicator 4.** The development plan shall describe how the assessment of business activity influences on the environment (preservation of biodiversity, the forest environment, non-timber forest resources, other biological, soil and water resources) have been taken into account.

Indexes:

- enterprise development strategy (if available) or other internal long-term planning document;
- description of the usable territories with a list of resources, geographical conditions and natural features;
- results of the possibility of technologies application analysis;
- Formalized environmental policy of the enterprise;
- interview with organization management.

4.7.5. **Criterion 5.** The development plan shall be regularly revised, based on the monitoring results or obtained new scientific and technical data, considering change of environmental and socio-economic conditions.

4.7.5.1. **Indicator 1.** The development plan shall be added with operative amendments related to effect of natural and man-made factors, if required.

Indexes:

- enterprise development strategy (if available), the development plan or another internal document of long-term planning;
- description of used areas and list of resources, geographical conditions and natural characteristics;
- results of monitoring impact of economic Indexes on the environment;
- interview with organization managers.

4.7.5.2. **Indicator 2.** The development plan shall be revised regularly and actualized taking into account results of monitoring of environmental and socio-economic changes, and new scientific and technical information.

Indexes:

- enterprise development strategy (if available), a development plan or another internal document of long-term planning;
- results of monitoring impact of economic Indexes on the environment;
- results of enterprise technology audit;
- interview with organization management.

4.7.6. **Criterion 6.** The certified organization must have employee advanced training and new employee training.

4.7.6.1. **Indicator 1.** Competency of organization employees shall be equivalent to the work they perform and the development plan.

Indexes:

- job descriptions for organization employees;
- data on performed Indexes (training programs, lists of participants);
- interview with personnel director;
- interview with employees;

- diplomas, certificates of field-specific education.

4.7.6.2. **Indicator 2.** Organization employees advanced training shall be regularly performed to be able to implement any development plan.

Indexes:

- job descriptions for organization employees;
- data on performed Indexes (training programs, lists of participants);
- interview with personnel director;
- interview with employees;
- diplomas, certificates of field-specific education.

4.7.7. **Criterion 7.** The certified organization must have a system of public informing about activity plans and results of their implementation, including environmental security providing.

4.7.7.1. **Indicator 1.** The essential components of the organization development plan shall not include any confidential data, and shall be available for the community.

Indexes:

- confidential data list;
- publication of key components of the agriculture activity plan;
- interview with interested parties.

4.7.7.2. **Indicator 2.** Enterprises shall provide the community with non-confidential data regarding business activity plans.

Indexes:

- confidential data list;
- publication of key components of the agriculture activity plan;
- non-confidential data granting procedure;
- documentation reflecting requests incoming to the organization;
- interview with interested parties.

4.8. Transparent monitoring and environment impact assessment principle. The certified organization shall perform monitoring of the used resource and environment conditions, production process, supply chain, business activity and its social and ecological consequences, according to the scale and intensity of economic Indexes.

4.8.1. **Criterion 1.** Frequency and nature of monitoring in the certified organization shall depend on the volume and intensity of economic activity, as well as on relative complexity and vulnerability of the environment. The monitoring procedure shall be reasonable and reproducible in time to get comparable results and evaluate the changes.

4.8.1.1. **Indicator 1.** The enterprise shall have a documented monitoring program with data on the following: monitored parameters; periodicity; monitoring procedure; grounds; persons responsible for monitoring.

Indexes:

- list of parameters that require the monitoring;
- monitoring program;
- monitoring procedure;
- interview with organization management;
- interview with organization specialists.

4.8.1.2. **Indicator 2.** Monitoring considering the scale and intensity of business activity, as well as complexity of structure and the vulnerability of the environment shall be performed to evaluate:

- achievement degree of economic Indexes goals and objectives;
- degree of implementation and deviation from the organization development plan;
- predicted and unexpected consequences of business activity;
- nature preserve-related consequences of economic Indexes;
- need to clarify the organization development plan.

Indexes:

- list of parameters that require the monitoring;
- monitoring program;
- monitoring procedures;
- monitoring results;
- interview with organization managers;
- interview with organization specialists.

4.8.1.3. **Indicator 3.** The monitoring program shall be updated considering the data collected, as well as when new data sources or monitoring methods appear, including map materials, if required.

Indexes:

- list of monitoring requiring parameters;
- monitoring program;
- monitoring procedures;
- monitoring results;
- documented proposals to modify the program or the monitoring procedure;
- interview with organization management.
- interview with organization specialists.

4.8.1.4. **Indicator 4.** The monitoring procedure shall be reasonable and reproducible in time to get comparable results and evaluate the changes.

Indexes:

- list of parameters that require the monitoring;
- monitoring program;
- scientific justification for the monitoring procedure;
- documented proposals to modify the program or the monitoring procedure;
- interview with organization management.
- interview with organization specialists.

4.8.2. **Criterion 2.** Business measures shall provide scientific researches and data collection required for monitoring in any certified organization, in accordance with the scale and intensity of production.

4.8.2.1. **Indicator 1.** Data collected by means of monitoring shall include volume of sampled resources.

Indexes:

- monitoring documents;
- interview with organization management;
- field inspection.

4.8.2.2. **Indicator 2.** Data collected by means of monitoring shall include rates of increase/decrease, recovery, and condition of used resource.

Indexes:

- monitoring documents;
- interview with organization management;
- field inspection.

4.8.2.3. **Indicator 3.** Data collected by means of monitoring shall include composition and changes observed in flora and fauna.

Indexes:

- monitoring documents;
- interview with organization management;
- field inspection.

4.8.2.4. **Indicator 4.** Data collected by means of monitoring shall include ecological and social consequences of the production activity.

Indexes:

- monitoring documents;
- interview with organization management;
- field inspection.

4.8.2.5. **Indicator 5.** Data collected by means of monitoring shall include cost, performance and efficiency of business activity.

Indexes:

- monitoring documents;
- interview with organization management;
- field inspection.

4.8.3. **Criterion 3.** The certified organization shall provide certifying and supervisory authorities with documents that allow tracking the movement of its products from the point of origin - a process known as the supply chain.

4.8.3.1. **Indicator 1.** Enterprise shall have a procedure that allows tracking the movement from the point of origin to the point of sale.

Indexes:

- product identification procedure;
- invoices, etc.;
- specifications;
- accompanying documents.

4.8.3.2. **Indicator 2.** All products owned by organization shall be easy identified, labelled and stored separately from products not produced at the enterprise (separate storage of products, raw materials and parts).

Indexes:

- product identification procedure;
- invoices, etc.;
- specifications;
- accompanying documents.

4.8.4. **Criterion 4.** The certified organization shall use the monitoring results when implementing the economic measures plan, and in case of its revision.

4.8.4.1. **Indicator 1.** Discrepancies between actual and expected plans, predictions, prospective consequences, results of economic activity or natural development of ecosystems, found during monitoring shall be taken into account when implementing the organization development plan.

Indexes:

- list of monitoring requiring parameters;
- monitoring program;
- scientific justification for the monitoring procedure;
- monitoring results;
- documented proposals to change the organization development plan;
- interview with organization management.

- interview with organization specialists.

4.8.4.2. **Indicator 2.** The discrepancies shall be taken into account in case of revision of the organization development plan, as specified in Paragraph 4.7.4.1.

Indexes:

- monitoring results;
- documented proposals to amend the organization development plan, policy and instructions of the organization;
- interview with organization managers.
- interview with organization specialists.

4.8.5. **Criterion 5.** The certified organization shall make publicly available the monitoring results summary, respecting the data confidentiality.

4.8.5.1. **Indicator 1.** The monitoring results summary without the confidentiality data shall be available to the community.

Indexes:

- confidential data list;
- monitoring result summary available for public;
- interview with interested parties.

4.8.5.2. **Indicator 2.** Enterprises shall provide the community with non-confidential data regarding monitoring results.

Indexes:

- confidential data list;
- monitoring result summary available for public;
- non-confidential data provision procedure
- interview with interested parties.

7.A) Specific nature of sea transport enterprises monitoring in the Arctic Zone.

4.8.6. **Criterion 6.** The organization understands the need for autonomous participation or in cooperation with other organizations and regional administration structures to create a complex system of environmental monitoring system of defined areas of water and coastal territories, allowing to prevent emergency situations related to spills of oil and oil products, as well as promoting elimination of emergency situations at early stages of development.

4.8.6.1. **Indicator 1.** The organization shall conduct the policy of transparency and readiness to cooperation on any administrative level or privately to deal with environment protection issues.

Indexes:

- framework agreements, agreements of intent to exchange monitoring results data;

- documents on participation in joint projects with the authorities and specialized environment protection organizations;
- interview with organization employees;
- interview with organization management.

4.8.6.2. **Indicator 2.** Organization management aware of need for environment and emergency situations data transparency.

Indexes:

- framework agreements, agreements of intent to exchange monitoring results data;
- documents on participation in joint projects with the authorities and specialized environment protection organizations;
- interview with organization employees;
- interview with organization management.

4.8.7. **Criterion 7.** The organization understands the need for creation and development of the Arctic Zone geophysical environment monitoring system, independently or in cooperation with other administrative organizations and structures in the region, to minimize the impact of extreme geophysical processes (natural and man-made) on human environment, including communication and navigation systems, transport and energy infrastructure, as well as ensuring functioning of North Sea Route and security of transit and trans-polar air routes in the Arctic Zone.

4.8.7.1. **Indicator 1.** Organization management aware of need for the North Sea Route environment and emergency situations data transparency.

Indexes:

- framework agreements, agreements of intent to exchange monitoring results data;
- documents on participation in joint projects with the authorities and specialized environment protection organizations;
- interview with organization employees;
- interview with organization management.

Note to the Paragraph about the Need for Monitoring

Since environment pollution in the Arctic Zone is created not only by enterprises that perform their business activity in the Arctic, but a considerable part is formed by a number of Arctic environment components (sea ice, bottom sediments, mosses and lichens, some animals) that accumulate pollution for many years, there is a need to perform monitoring by independent environmental

organizations. In such a case, organizations ready to join the Standard, shall provide assistance in the following issues:

- creation and improvement of the of state environmental monitoring system in the Arctic Zone of the Russian Federation: - expansion of the monitoring sites network to cover remote territories, system monitoring and evaluation of atmospheric air toxic substance concentration change dynamics, integration with the global monitoring network;
- improvement of the system of state environmental monitoring in the Arctic Zone of the Russian Federation based on use of objective and measurable environment situation evaluation indicators, creation of environment pollution monitoring and control system, that uses modern monitoring tools of terrestrial, air and space deployment, integrated with existing and creating international environment monitoring systems, and providing detection and forecast of dangerous and extreme natural phenomena in the Arctic Zone of the Russian Federation, including negative climate changes, as well as detection and prediction of natural and man-made disasters in proper time;
- development of a unified national system of monitoring and pollution of the environment of the Arctic Zone of the Russian Federation, synchronized with analogous international systems;
- introduction of new and improvement of existing methods of atmospheric air quality study: widening the list of pollutants to be controlled with monitoring stations;
- implementation of practice of environment pollution complex study: simultaneous monitoring of atmospheric air background pollution and soil cover or snow pollution monitoring

4.9. Principle of creation and maintaining of special nature conservation areas. Performing economic activity in the areas of high nature preserving value shall result to keeping or increasing of characteristics determining the value of these areas. Adoption of resolution related to areas of high nature preserving value shall be planned with a special precaution, carefully considering any possible negative consequences.

4.9.1. **Criterion 1.** Studies detecting territory feature availabilities of high nature preserving value shall be performed in accordance with the scale and intensity of economic activity, taking into account the perspective development plans of the organization being certified.

4.9.1.1. **Indicator 1.** The organization shall determine (if possible) before starting the activities, whether an area is considered to be a territory (eco-region) characterized by high biological diversity in the global or national scale and/or whether it includes other objects characterized by high biological diversity (key ornithological areas, wetlands of international importance, etc.).

Indexes:

- territory survey materials;
- interview with specialists involved in detection of such territories;
- interview with interested parties.

4.9.1.2. **Indicator 2.** The organization shall determine (if possible) before starting activities, whether an area contains rare and endangered ecosystems.

Indexes:

- territory survey materials;
- interview with specialists involved in detection of such territories;
- interview with interested parties.

4.9.1.3. **Indicator 3.** Before starting activity, organization shall determine (if possible) whether any areas of key environment maintaining or resource protecting value are situated on the territory.

Indexes:

- territory survey materials;
- interview with specialists involved in detection of such territories;
- interview with interested parties.

4.9.2. **Criterion 2.** A special attention shall be focused on environmental values of used areas and determination of ways to save them, in the framework of consultative part of certification.

4.9.2.1. **Indicator 1.** The organization shall hold consultations with a wide range of interested parties concerning identification, conservation and management of areas of high nature preserving value.

Indexes:

- list of interested parties with an indicated type of areas of high natural values they are referred to;
- protocols of meetings, letters and other written evidence of performed consultations;
- interview with interested parties.

4.9.2.2. **Indicator 2.** Organization, with participation of interested parties, shall prepare criteria for determination of territories of high environmental value and maps of the territories of each type, based on the obtained data.

Indexes:

- list of interested parties with an indicated type of areas of high natural values they are referred to;
- protocols of meetings, letters and other written evidence of performed consultations;
- interview with interested parties.

4.9.2.3. **Indicator 3.** Organization, with participation of interested parties, shall prepare a system of measures for conservation and management of areas of high nature preserving value, based on data of indicator 4.8.2.2.

Indexes:

- list of interested parties with an indicated type of areas of high natural values they are referred to;
- protocols of meetings, letters and other written evidence of performed consultations;
- list of measures to preserve and manage areas of high natural preserving value;
- interview with interested parties.

4.9.2.4. **Indicator 4.** Organization shall develop allocation parameters, and maps of allocated areas of high nature preserving value, available to the community.

Indexes:

- protocols of meetings, letters and other written evidence of performed consultations;
- list of measures to preserve and manage areas of high natural preserving value;
- list of parameters of selected areas;
- procedure for data transferring to interested parties and media's requests responding;
- interview with interested parties.

4.9.3. **Criterion 3.** The certified organization shall have a management plan for natural preserving territories within the boundaries of its activity. The management plan shall include and apply such business activity methods that will contribute to keeping or rising the characteristics of the areas of high nature preserving value. These measures shall be planned with great caution, carefully considering potential negative consequences. All of these measures shall be purposely included in a brief summary of the management plan available for the community.

4.9.3.1. **Indicator 1.** The procedure for protection, use and management of the areas of special nature conservation value shall be specified in the management plan, policies and instructions of the organization.

Indexes:

- map of areas of high biodiversity, and other materials;
- list of measures to save biological diversity;
- written instructions for the organization;
- technological regulations with the transport maps;
- plans for economic activities;
- interview with interested parties.
- field inspection.

4.9.3.2. **Indicator 2.** Buffer areas shall be created around the areas of strict protection allocated by the organization.

Indexes:

- maps of approved borders of buffer zones;
- written evidence of correspondence, agreements, minutes of meetings with interested parties;
- interview with interested parties.

4.9.3.3. **Indicator 3.** The best nature management methods and technologies, in terms of conservation of biological diversity and environmental protection, shall be used within the buffer areas.

Indexes:

- maps of approved borders of buffer zones;
- written evidence of correspondence, agreements, minutes of meetings with interested parties;
- list of measures to save areas of high nature conservation value;
- process regulations;
- plans for economic activities;
- interview with interested parties.

4.9.3.4. **Indicator 4.** Rare and endangered ecosystems shall be preserved for complete or partial exclusion from economic use.

Indexes:

- maps of rare and endangered ecosystems (if applicable);
- list of measures to save such ecosystems, including inadmissible types of Indexes;
- process regulations;
- plans for economic activities;

- interview with interested parties.
- field inspection.

4.9.3.5. **Indicator 5.** Any measures shall be taken to ensure preservation of value of the areas of particular importance for the local community, including from religious, cultural, environmental or economic points of view.

Indexes:

- maps of rare and endangered ecosystems (if applicable);
- list of measures to save such ecosystems, including inadmissible types of Indexes;
- process regulations;
- plans for economic activities;
- interview with interested parties.
- field inspection.

4.9.4. **Criterion 4.** Efficiency of the measures taken by the organization being certified to maintain and enhance the characteristics of areas of high nature preserving value shall be evaluated based on annual monitoring.

4.9.4.1. **Indicator 1.** Efficiency of the measures taken by the organization being certified to maintain and enhance the characteristics of areas of high nature preserving value shall be evaluated based on results of annual monitoring.

Indexes:

- annual monitoring materials;
- field inspection.

4.9.4.2. **Indicator 2.** Organization shall provide any materials required to perform regular independent monitoring of conditions in the areas of high nature preserving value by interested parties, upon the relevant request.

Indexes:

- annual monitoring materials;
- materials of correspondence and meetings with interested parties on this matter;
- interview with company management;
- interview with interested parties.
- field inspection.

5. Standards development concept

5.1. Compliance with Strategic Planning documentation of the Russian Federation

All provisions of the Standard shall comply with the current regulatory framework of the Russian Federation. The conceptual foundation of the text is served by the following documents:

- Development strategy of the Russian Arctic zone and national security before 2020
- Basic Principles of Russian State Policy the Arctic Region before 2020 and beyond
- Russian Ecological Doctrine
- 2020 Russian Maritime Doctrine
- Basic Principles of State Policy on chemical and biological safety of the Russian Federation before 2010 and beyond.
- Federal Law No.7 and other Federal Laws for environmental protection
- International legal documents adopted in the Russian Federation.

For practical application of the standard provisions, the environmental protection regulations specified in the list of the Ministry of Natural Resources and Environment of the Russian Federation shall be used. In addition to federal regulations, regional and local regulations can be used.

5.2. Scientific approach to the Standard development

Within Standard development, the scientific community should play the part of the key experts, all changes in the standard should be scientifically grounded and built on the practice of regular monitoring of the standard performance as a practical activity control. Scientific approach shall include the following processes:

- ecological forecasting of environmental quality and its change under specific environmental policy impact;
- scientifically grounded environmental planning, i.e. a strategy and detailed programs for environment protection and rational use of natural resources;
- developing scientifically grounded methods for environmental economics control through law;
- monitoring, development and standardization of environmental control approaches, keeping record of natural resources availability, quality and use;
- expert services in environmental control in order to establish environment compliance and noncompliance with the applicable legal requirements;
- providing environmental education, promoting environmental awareness and social in order to change the idea of consumption.

5.3. Transparency

Transparency considers taking all possible measures to implement a public discussion and adoption of the Standard. The following terms apply:

- all provisions of the Standard, their drafts, any interpretation of any regulations herein as well as discussions shall be published in open media, the regulations are not subject to commercial use;
- all texts and provisions of the Standard shall be available in printed and electronic forms, the web page of the Standard being the main resource for official information on the Standard;
- discussions on Standard texts shall be held as free discussion both on the conceptual content and on the language of its paragraphs, all opinions are considered by debaters using scientific approach only.

5.4. Amendments to the Standard

Development of the Standard is affected by the changes in internal atmosphere across Russia and worldwide, hence the Standard will require certain amendments.

The following two channels are considered to understand and define such changes:

- message board on the online portal;
- annual conferences dedicated to the Standard practices, development issues, successful experience in environmental management;
- Standard can be potentially transformed into mandatory industrial standards.

Annex. "The set of governing documents on environmental regulation in the Russian Federation"

Strategic planning of the Russian Federation

Development strategy of the Russian Arctic zone and national security before 2020

Basic Principles of Russian State Policy the Arctic Region before 2020 and beyond
Russian Ecological Doctrine

2020 Russian Maritime Doctrine

Basic Principles of State Policy on chemical and biological safety of the Russian Federation before 2010 and beyond.

Legislative acts of the Russian Federation

- 1.1. On protection of environment. Federal Law No. 7-FZ dd. January 10, 2002.
- 1.2. On protection of atmosphere. The Federal Law No.96-FZ dd. May 4, 1999.
- 1.3. Land Code of the Russian Federation. The Federal Law No. 136-FZ dd. October 25, 2001.
- 1.4. On enactment of the Land Code of the Russian Federation. Federal Law No. 137-FZ dd. October 25, 2001.
- 1.5. Water Code of the Russian Federation. Federal Law No. 74-FZ dd. June 3, 2006.
- 1.6. On implementation of the Water Code of the Russian Federation. Federal Law No. 73-FZ dd. June 3, 2006.
- 1.7. On animal world. The Federal Law No. 52-FZ dd. April 24, 1995.
- 1.8. On subsoil (as amended by the Federal Law No. 27-FZ dd. March 3, 1995). Law of the Russian Federation No. 2395-1 dd. February 21, 1992.
- 1.9. On waste of production and consumption. Federal Law No. 89-FZ dd. June 24, 1998.
- 1.10. On ecological examination. Federal Law No. 174-FZ dd. November 23, 1995.
- 1.11. On population's sanitary-epidemiological welfare. Federal Law No. 52-FZ dd. March 30, 1999.
- 1.12. On exclusive economic zone of the Russian Federation. The federal law No. 191-FZ dd. December 17, 1998.
- 1.13. On fishing and conservation of aquatic biological resources. Federal Law No. 166-FZ dd. December 20, 2004.
- 1.14. On specially protected natural territories. Federal Law No. 33-FZ dd. March 14, 1995.
- 1.15. On use of atomic energy. Federal Law No. 170-FZ dd. November 21, 1995.
- 1.16. Forest Code of the Russian Federation. Federal Law dd. No. 200-FZ December 4, 2006.
- 1.17. On enactment of the Forest Code of the Russian Federation. Federal Law No. 201-FZ dd. December 04, 2006.
- 1.18. On internal sea waters, the territorial sea and the contiguous zone of the Russian Federation. Federal Law No. 155-FZ dd. July 31, 1998.
- 1.19. On safe handling of pesticides and agrochemicals. Federal Law No. 109-FZ dd. July 19, 1997.
- 1.20. On continental shelf of the Russian Federation. Federal Law No. 187-FZ dd. November 30, 1995.
- 1.21. On the hydrometeorological service. Federal Law No. 113-FZ dd. July, 1998.

Acts of the Government of the Russian Federation

- 1.22. On approval of technical regulations on the safety of marine transport facilities. Russian Government Decree No. 620 dd. August 12, 2010.

1.23. On approval of the technical regulations "On requirements for automobile and aviation gasoline, diesel and marine fuel, jet fuel and fuel oil". Russian Government Decree No.118 dd. February 27, 2008.

1.24. On approval of the technical regulation "On requirements for emissions of harmful (pollutant) substances by automotive equipment issued for use in the territory of the Russian Federation". Russian Government Decree No. 609 dd. October 12, 2005.

Standards

1.25. GOST 17.2.1.04-77 Nature protection. Atmosphere. Sources and meteorological factors of pollution, industrial emissions. Terms and Definitions. USSR Gosstandard Decree No. 1611dd. June 28, 1977.

1.26. GOST 17.2.4.02-81 Nature protection. Atmosphere. General requirements for methods for determining pollutants. USSR Gosstandard Decree No. 4837 dd. November 09, 1981.

1.27. GOST 17.2.4.04-82 Nature protection. Atmosphere. Normalization of external noise characteristics of vessels of inland and coastal navigation. USSR Gosstandard Decree No. 2607 dd. July 08, 1982.

1.28. GOST 17.2.4.05-83 Nature protection. Atmosphere. Gravimetric method for determining suspended dust particles. USSR Gosstandard Decree No. 6356 dd. December 20, 1983.

1.29. GOST 17.2.4.04-82 Nature protection. Atmosphere. Normalization of external noise characteristics of vessels of inland and coastal navigation. USSR Gosstandard Decree No. 2607 dd. July 08, 1982.

1.30. GOST 17.2.1.03-84 Nature protection. Atmosphere. Terms and definitions of pollution control. USSR Gosstandard Decree No. 587 dd. February 23, 1984.

1.31. GOST 17.2.2.04-86 Nature protection. Atmosphere. Gas turbine engines of civil aviation aircraft. Norms and methods for determining pollutant emissions. USSR Gosstandard Decree No. 400 dd. February 24, 1986.

1.32. GOST 17.2.3.01-86 Nature protection. Atmosphere. Rules of air quality control for settlements. USSR Gosstandard Decree No. 3395 dd. November 10, 1986.

1.33. GOST 17.2.2.02-98 Nature protection. Atmosphere. Norms and methods for determining the smoke opacity of exhaust gases of diesel engines, tractors and self-propelled agricultural machines. USSR Gosstandard Decree No. 445 dd. December 15, 1998.

1.34. GOST R 17.2.2.06-99 Nature protection. Atmosphere. Norms and methods for measuring the content of carbon monoxide and hydrocarbons in exhaust gases of gas-cylinder vehicles. Russian Gosstandard Decree No. 405-st dd. November 16, 1999.

1.35. GOST R ISO 14064-2-2007 Greenhouse gases. Part 2. Requirements and

guidance for the quantification, monitoring and reporting on projects for reducing greenhouse gas emissions or increasing their removal at the project level. Rosstandart Directive No. 434-st dd. December 27, 2007.

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