

KZ69RYS00190025
02.12.2021

Statement of the envisaged activities

1. Information on the Initiator of the envisaged activities:
for a physical entity:

Full name (if it is indicated in the identity document), address of residence, individual
identification number, telephone, e-mail:

for a legal entity:

Limited Liability Partnership Biocarbon, 8 Y Altynsarin str., apt.1, the Bakanas village,
the Balkhash district, Almaty oblast, 040300, the Republic of Kazakhstan,
171040009247, ANTIPOV ANDREI FEDOROVICH, 87072342347,
biocarbon@mail.ru
name, address, business identification number, details of the Chief Executive Officer,
telephone, e-mail.

2. General description of the types of the envisaged activities and their classification
according to Attachment 1 of the Environmental Code of the Republic of Kazakhstan
(hereinafter referred to as the “Code”). The facilities where the operations are carried out to
remove or recover the non-hazardous wastes, with a capacity exceeding 2,500 tons per year. The
Project “Establishment of the pilot production for processing rice husk.”

3. In cases of introduction of significant changes in the types of activities:

a description of the significant changes in the types of activities and (or) operation of the
facilities in respect of which an environmental impact assessment was previously carried out
(subparagraph 3) of paragraph 1 of Article 65 of the Code). Earlier, an environmental impact
assessment was carried out for the detail design “Construction of a production base for processing
rice husk into charcoal briquettes”. After the additional research, the Project was reoriented to the
production of nanostructured carbon-silicon materials. The reason for choosing the output of such
a product was as follows: there was no need for additional raw materials, the rubber products
factories (RPF) of Kazakhstan and the Republic of Belarus (the Bobruisk plant and BelShina JSC)
showed interest in this product. The Belarusian State Technological University offered its
participation in the development of rubber compounds and further research of the proposed
innovative materials. A Memorandum of Cooperation No. IKT-D-005/1, dated January 11, 2021
was signed. The changes in the technological part consisted in the fact that the production was
limited to obtaining the carbonizate and its grinding and packaging. In a previously developed

Project, the carbonizate was additionally mixed with crushed charcoal and briquetted. There are no changes in the construction part; a description of significant changes in the types of activities and (or) operations of the facilities for which a conclusion was issued earlier on the results of screening the impacts of the envisaged activities with the decision that there was no need to conduct an environmental impact assessment (subparagraph 4) of paragraph 1 of Article 65 of the Code). Screening was not carried out.

4. The information on the proposed place of implementation of the envisaged activities, justification of the choice of location and the possibility of choosing other locations. The production zone 122/A S. Seifulin str., the Bakanas village, the Balkhash district, Almaty oblast. The construction site is located in the southeastern outskirts of the Bakanas village. From the south it borders on the production base, from the north, west and east there are neither buildings nor the residential zone. The nearest residential zone is 400 m to the north and 600 m to the northwest of the construction site. Bakanas is the final pier on the banks of the Ili river, below which the river splits into branches and forms a vast delta. To the north of Bakanas, the eponymous ancient delta of the Ili river - Bakanas - began in the past. Now it is the territory of the Saryesik-Atyrau desert. Near the village the northernmost rice growing area in the world - Akdalinskiy massif begins, which was founded in the 1970s. Rice bays are irrigated by the Bakanas Chanal, regulated by sluices. The problem of using or removing rice husk is particularly acute for rice growers. In the course of processing every 50 kg of raw rice, an average of 10 kg of rice husk is accumulated. Thus, with an annual harvest of 1 million tons, about 200 thousand tons of rice husk is formed. With the bulk weight of 140 kg/m^3 , this is 1.4 million m^3 . Even after burning the husk, 0.14 million m^3 of ash is formed. And although some firms are developing the market for rice husk and its derivatives, nevertheless, 75% of the rice husk is burned. It should be noted that the rice cultivation wastes are difficult to burn (smoldering), while the smoldering process is accompanied by a significant impact on the atmospheric air. Thus, the main environmental direction of the Project is the disposal of the rice cultivation wastes by setting up the production of nanostructured silicon-carbon materials, based on the plant raw materials, consisting of rice processing products. The finished products: silicon-carbon micropowder.

5. General estimated technical characteristics of the envisaged activity, including capacity, productivity) of the facility, its estimated size, characteristics of the products. The Project covers the rice processing plants, as well as rice growing farms in the Balkhash district of Almaty oblast, as the main suppliers of the raw materials. The planned production capacity: processing 5000 tons/year of the rice production wastes. Among the consumers of the products planned for release, an interest was shown by the rubber products factories (RPF) of Kazakhstan and the Republic of Belarus (the Bobruisk plant and Amkodor-Elastomer JSC). The Belarusian State Technological University offered its participation in the development of rubber compounds and further research of the proposed innovative materials. A Memorandum of Cooperation No. IKT-D-005/1, dated January 11, 2021 was signed.

6. A brief description of the proposed technical and technological solutions for the envisaged activity. Rice husk (RH) and rice stalk (RS) processing takes place in a rotary carbonization kiln by the method of fast pyrolysis without access of the outer air to the carbonizate, in one stage, in a closed cycle, around the clock. After the heat treatment, the lignin and cellulose, contained in the RH, pass into amorphous carbon without air access. As a result, an organic residue, a compound of silica and carbon, is obtained. The mixture is heated in the kiln up to 700°C for 60 minutes. The liquid organic products, obtained during the thermal RH decomposition, are captured in the filter system and condensed into the liquid wastes, then discharged into a settling tank, and the volatile products in the form of power gas, consisting mainly of carbon monoxide and other volatile gases, pass to the kiln for the after-burning as the main fuel. Natural gas is used for the initial ignition. The resulting material, RH carbonizate, as the main component, after cooling passes to the mill complex for grinding to a fraction of 20-40 microns. Upon processing 1000 kg of RH with the moisture content of 3-5%, it undergoes a pyrolysis process. As a result of the process, several types of products are obtained: 0.4 tons of RH carbonizate with the coefficient of 2.5, 0.37 tons of organic aqueous product with the coefficient of 2.7, 0.208 tons of power pyrolysis gas, with the coefficient of 4.8; 0.022 tons are

unexpected losses. The gas cleaning system, built into the unit, purifies the vapor-gas mixture with the separation into the liquid and gas fractions. There are no untreated air emissions at all. The second operation is fine grinding of the obtained carbonizate in the mill complex to a fraction of 40 microns. The built-in blast blower of the mill, brings the ground materials to the bag filter system, where the fine power fractions are captured and the coarse particles are returned to the mill until the complete grinding. No wastes are generated during grinding. The finished products pass to the filling machine.

7. The assumed time frames for starting the implementation of the envisaged activities and their completion (including construction, operation, and post-utilization of the facility) are January-November 2022.

8. Description of the types of resources, required for the implementation of the envisaged activities, including the construction, operation and post-utilization of the facilities (indicating the expected qualitative and maximal quantitative characteristics, as well as the operations for which they are supposed to be used):

1) land plots, their areas, intended purpose, estimated terms of use, land plot with an area of 0.9936 ha, intended purpose - for the maintenance of buildings and structures, cadastral number 03-043-010-039, address: 122 A Seifulin str., the Bakanas village, the Balkhash district, Almaty oblast. The right of temporary paid land use for a period of 5 years on the basis of the Order of the Akim of the Bakanas rural district of the Balkhash district of Almaty oblast No. 21-ø n/κ, dated 24.04.2020, Lease Agreement for a land plot No. 42, dated 04.05.2020, Certificate for the right of gratuitous (long-term, short-term) land use (lease) No. 0494961 dated 10.06.2020;

2) water resources, indicating: the assumed source of water supply (centralized water supply systems, water bodies used for non-centralized water supply, trucked water), information on the presence of the water protection zones and strips, in their absence - a conclusion of the need to establish them in accordance with the legislation of the Republic of Kazakhstan, and if they are available - prohibitions and restrictions concerning the envisaged activities in these areas. Technical solutions, adopted during the construction and operation of the facility, comply in terms of the protection and use of water resources with the main provisions of the Rules for the protection of surface waters of the Republic of Kazakhstan and the Water Code of the Republic of Kazakhstan. The Project does not provide for the formation of surface runoff, the ingress of toxic substances into the soil is excluded. The Ili river flows south-west from the borders of the Bakanas village. The distance from the site of the designed facility to the Ili river is more than 700 m. Thus, the designed facility is located outside the water protection zones and strips. For the period of construction and operation, the use of toxic materials is not provided for. Also, the leakage of fuels and lubricants and spillage of building mixtures on the soil surface are not allowed in order to prevent the ingress of pollutants into the surface and ground waters. The water supply for the construction period is imported – the bottled water supply for the household and drinking needs, and water supply of technical quality for the production needs, tankered water supply. The household wastewater is planned to be collected in dry closets, with the subsequent removal to the treatment facilities. Water is used for the household and production needs. Drinking water supply is for the household needs. The number of employees is 30 people, including 25 workers, engineers and 5 technicians. The water consumption for the household and drinking needs is 0.7 m³/day, 210 m³/constr. period. The water disposal is - 0.7 m³/day, 210 m³/constr. period. The production water supply. Open ground irrigation (dust suppression). The open ground irrigation will be carried out with the water of technical quality. Watering is done daily, according to SNiP RK 4.01.41-2006*. The water consumption for irrigation is 0.4 liters/1m² (0.4 l/m²*964.1545 m³)/1000 = 0.3857 m³/day. 0.3857 m³/day*150 days = 57.855 m³/constr. Period; types of water use (general, special, isolated), the quality of the required water (drinking, non-drinking). Technical solutions, adopted during the construction and operation of the facility in terms of the protection and use of water resources comply with the main provisions of the Rules for the protection of surface waters of the Republic of Kazakhstan and the Water Code of the Republic of Kazakhstan. The Project does not provide for the formation of surface runoff, the ingress of toxic substances into the soil is excluded. The Ili river flows south-west from the borders of the Bakanas village. The

distance from the site of the designed facility to the Ili river is more than 700 m. Thus, the projected enterprise is located outside the water protection zones and strips. For the period of construction and operation, the use of toxic materials is not provided. Also, the leakage of fuels and lubricants and spillage of building mixtures on the soil surface are not allowed in order to prevent the ingress of pollutants into the surface and ground waters. The water supply for the construction period is imported – the bottled water supply for the household and drinking needs, and water supply of technical quality for the production needs, tankered water supply. The household wastewater is planned to be collected in dry closets, with the subsequent removal to the treatment facilities. Water is used for the household and production needs. Drinking water supply is for the household needs. The number of employees is 30 people, including 25 workers, engineers and 5 technicians. The water consumption for the household and drinking needs is 0.7 m³/day, 210 m³/constr. period. The water disposal is - 0.7 m³/day, 210 m³/constr. period. The production water supply. Open ground irrigation (dust suppression). The open ground irrigation will be carried out with the water of technical quality. Watering is done daily, according to SNiP RK 4.01.41-2006*. The water consumption for irrigation is 0.4 liters/1m² (0.4 l/m²*964.1545 m³)/1000 = 0.3857 m³/day. 0.3857 m³/day*150 days = 57.855 m³/constr. period. The water consumption for the household and drinking needs is 0.7 m³/day, 210 m³/constr. period. The water disposal is 0.7 m³/day, 210 m³/constr. period. The production water supply. Open ground irrigation (dust suppression). The open ground irrigation will be carried out with the water of technical quality. Watering is done daily, according to SNiP RK 4.01.41-2006*. The water consumption for irrigation is 0.4 liters/1m². (0.4 l/m²*964.1545 m³)/1000 = 0.3857 m³/day. 0.3857 m³/day*150 days = 57.855 m³/constr. period. Operations for which the use of water resources is planned. The technical solutions, adopted during the construction and operation of the facility comply in terms of the protection and use of the water resources, with the main provisions of the Rules for the protection of the surface waters of the Republic of Kazakhstan and the Water Code of the Republic of Kazakhstan. The Project does not provide for the formation of surface runoff, the ingress of toxic substances into the soil is excluded. The Ili river flows south-west from the borders of the Bakanas village. The distance from the site of the designed facility to the Ili river is more than 700 m. Thus, the designed facility is located outside the water protection zones and strips. For the period of construction and operation, the use of toxic materials is not provided for. Also, leakage of fuels and lubricants and spillage of building mixtures on the soil surface are not allowed in order to prevent the ingress of pollutants into surface and ground waters. The water supply for the construction period is imported – the bottled water supply for the household and drinking needs, and water supply of technical quality for the production needs, tankered water supply. The household wastewater is planned to be collected in dry closets, with the subsequent removal to the treatment facilities. Water is used for the household and production needs. Drinking water supply is for the household needs. The number of employees is 30 people, including 25 workers, engineers and 5 technicians. The water consumption for the household and drinking needs is 0.7 m³/day, 210 m³/constr. period. The water disposal is - 0.7 m³/day, 210 m³/constr. period. The production water supply. Open ground irrigation (dust suppression). The open ground irrigation will be carried out with the water of technical quality. Watering is done daily, according to SNiP RK 4.01.41-2006*. The water consumption for irrigation is 0.4 liters/1m² (0.4 l/m²*964.1545 m³)/1000 = 0.3857 m³/day. 0.3857 m³/day*150 days = 57.855 m³/constr. period.

3) subsoil plots, indicating the type and terms of the subsoil use right, their geographic coordinates (if known). Not required;

4) the plant resources with an indication of their types, volumes, sources of acquisition (including the places of their harvesting, if it is planned to harvest them in the environment) and the terms of use, as well as the information on the presence or absence of green plants in the proposed place of the implementation of the envisaged activities, the need to strip them or transfer, the number of green plants to be felled or transferred, as well as planned for planting as a compensation. The impact on the soil-vegetation layer during the operation period is not provided for. Before the start of the construction, the topsoil is stripped and temporarily stored until reclamation. Upon completion of the construction, technical reclamation is envisaged (planning work, return of the topsoil). Also, during the operation period, the work will be carried out on landscaping and finishing the SPZ;

5) types of objects of the animal world, their parts, derivatives, useful properties and animal products of vital functions, indicating:

the volume of use by the animal world Not required;

the assumed place of use by the animal world and the type of use Not required;

other sources of acquisition of objects of the animal world, their parts, derivatives and animal products of vital functions. Not required;

operations for which it is planned to use the objects of the animal world. Not required

6) other resources, required for the implementation of the envisaged activities (materials, raw materials, products, electrical and heat energy) indicating the source of purchase, volumes and terms of use. The facility is connected with the external networks: power supply (TP 320 kW) and water supply from the central water pipeline of the Bakanas village, at the design stage – connection of the central gas pipeline with natural gas. Heat energy is an autonomous heat supply system, the source is a gas boiler with a capacity of 3 kW. The standard certified building materials will be used for the construction. For the production itself, during the operation period, the raw materials are plant wastes generated during the cultivation and processing of rice;

7) risks of depletion of the used natural resources due to their scarcity, uniqueness and (or) non-renewability. For the period of construction, the soil will undergo linear and areal disturbances in order to arrange the foundations of the administrative building, production workshop, warehouse and checkpoint as a result of excavation work and movement of construction equipment. The use of toxic materials at the construction site is not planned, the ingress of the building mixtures on the ground surface is excluded. All construction and household wastes are planned to be stored in the specially designated areas in closed containers. Upon completion of the construction and installation works, a technical reclamation of the soil and vegetation layer will be carried out. For the period of operation of the facility buildings and structures, no significant impact on soil is expected. The ingress of the household wastewater is excluded. The impact on the soil-vegetation layer during the period of operation is not provided for. Before the start of the construction, the topsoil is stripped and temporarily stored until the reclamation. Upon completion of the construction, a technical reclamation is envisaged (planning work, return of the topsoil). Also, during the operation period, the work will be carried out for landscaping and finishing of the territory and the SPZ.

9. Description of the expected emissions of pollutants into the atmosphere: names of the pollutants, their hazard classes, estimated volumes of emissions, information on the substances included in the list of pollutants, the data on which should be entered into the register of emissions and transfer of pollutants in accordance with the rules for maintaining the register of emissions and transfer of pollutants, approved by the authorized body (hereinafter referred to as the rules for maintaining the register of emissions and transfer of pollutants). Sources of emissions for the construction period (10 months): earthworks (6001.001-003), removal of the topsoil, excavation of soil for the foundations, wells and pipelines, excavation device with the development of the base, backfilling of soil and partial leveling of the surface, work on a temporary dump; unloading and leveling of the sandy base (6002.001); unloading and leveling of the required crushed stone base (6002.002); welding works (6003.001-002), welding is carried out with stick electrodes, using a portable welding transformer and gas cutting of metal; waterproofing with bituminous mastic (6004.001); paintwork (6005.001-006); road works, asphalt laying (6006.001); a compressor with an internal combustion engine (0001); work of the special equipment (the source is not standardized). Total emissions for the construction period: 2.08302g/s, 1.362962t year. Sources of emissions for the period of operation: Source 0001. Chimney of the furnace for burning natural gas and pyrolysis gas. Natural gas consumption is 40m³ for single ignition. With the operating mode 260/8, the annual gas consumption will make up 480 m³/year. The consumption of PGE burned in the kiln is 0.28 tons when processing 1 ton of RH. With an annual productivity of 1440 t/year, the PGE consumption is 403.2 t/year. Source 0002. Ventilation pipe of the RH carbonizate crushing site. Finely dispersed grinding of the obtained carbonizate in the mill complex to a fraction of 40 microns. No waste is generated during grinding. Source 0003. Ventilation pipe. Source 0004. Heating boiler chimney. Heat supply from a gas boiler ZOTA MAGNA 60. The heating medium for the heating system – the pipeline water with the parameters 85/60°C is prepared in the boiler room. The boiler operation

time is 184 days. The gas consumption according to the passport data 120 kg/year, when working 10 hours a day. The annual fuel consumption is 22.08 t/year. The estimated total emission for the period of operation: 3.97877 g/s, 18.58876 t/year.

10. Description of discharges of pollutants: names of the pollutants, their hazard classes, estimated volumes of discharges, information on the substances included in the list of pollutants, data on which should be entered into the register of emissions and transfers of pollutants in accordance with the rules for maintaining the register of emissions and transfers of pollutants. The absence of a central sewerage system in the Bakanas village provides for the installation of a waterproof septic tank, which receives the household waste water. The septic tank area is 7 m², the depth is 4 m, the volume is 21 m³. It is necessary to install a separate sewer well at a distance of 15-20m. from the construction site. The domestic sewerage network is designed to drain wastewater from the sanitary devices. It is made of propylene pipes. The discharge of the production waste water (namely, organic water product) into the pond is provided for storage pond with an area of 30 m² and a depth of 2.5 m. The volume of the storage pond is 75 m³. The organic water product is discharged into a storage pond, where it settles and stratifies into water and the above-mentioned organic impurities. The water is pumped out fully by a submersible pump for the technical needs of the production line, so there is no evaporation, while the organic impurities are a necessary raw material for the pharmaceutical industry and are collected from the storage pond in separate containers. The use of organic sludge will be considered in a separate detailed design.

11. Description of wastes, the management of which relates to the envisaged activities: names of waste, their types, estimated volumes, operations resulting in their generation, information on the presence or absence of the possibility of exceeding the threshold values, established for the transfer of waste by the rules for maintaining a register of emissions and transfer of pollutants. On the site during the construction period, special containers are provided for storing materials. Paints and varnishes and bulk building materials, used for finishing works, will be delivered in the sealed containers and packaging. According to a preliminary calculation, the following types and volumes of waste generation have been determined: SDW - 1.7623 t/constr. period; cinders of welding electrodes - 0.0293 t/constr. period; container of the paintwork materials - 0.1126 t/constr. period; construction waste -0.7234 t/constr. period. During the operation, the following wastes are generated: solid domestic waste - 9.9 tons year; garbage from the territory - 14.88 tons/year; rice husk bags - 1.14 tons/year. The sediment of the storage pond is 34.77 tons/year. Collection, temporary storage, transportation and disposal of the wastes will be carried out in accordance with the regulations of the Republic of Kazakhstan. During the construction period, the construction Contractor will organize additional places for temporary waste accumulation. SDW will be collected in containers, installed near the construction site, which, as they are filled, will be taken out by a specialized organization to an authorized landfill according to the Contract. The construction wastes will be collected in a designated special container, which will also be removed by a specialized organization to an authorized landfill for disposal on a contractual basis. The wastes of the paint and varnish materials, used brushes, hardened varnishes, thinners, paint containers, filled as a result of painting, will be transferred to the specialized enterprises for further disposal on a contractual basis. Garbage from the territory, rice husk bags will be collected in the containers installed in the solid waste collection site and, as they filled, will be taken to the solid waste landfill. The sediment from the storage pond will be stored on a separate site in the sealed plastic containers and transported as raw materials to another production facility.

12. The list of permits, the availability of which is presumably required for the implementation of the envisaged activities, and state bodies, whose competence includes the issuance of such permits. Not required, the conclusion of a comprehensive state examination is attached.

13. Brief description of the current state of the environmental components in the territory and (or) in the water area, where the envisaged activities are supposed to be carried out, in comparison with environmental standards or target indicators of the quality of the environment, and in their absence - with the hygienic standards; baseline research results, if

available from the initiator; the conclusion on the need or no need for field research (in the absence or inadequacy of the results of the baseline research, the presence in the proposed place of the implementation of the envisaged activities of the objects, whose impact on the environment has not been studied or studied insufficiently, including the historical pollution objects, former military test grounds and other objects). The area, where the facility is located is characterized by a sharply continental climate. The landscape of the site is relatively flat, with a general decline from south to north. The groundwater recharge is due to the infiltration of the atmospheric precipitation, inflow from the pinch-out zone, surrounding the aggradation plains. Fresh sulphate-hydrocarbonate sodium-calcium waters. The hydrographic network of the territory under consideration belongs to the Balkhash lake basin and is represented by the Ili river, which is formed from two small rivers, Tekesa and Kungesa. No surface water sources are found in the area under consideration. The territory is neither swamped, nor flooded. The site is located within the Ili river valley, alluvial - proluvial plain. The geological and lithological structure of the site includes the Upper Quaternary alluvial - proluvial deposits (apQIII), represented by loams with a thickness of no more than 0.8 - 1.0 m, the well-washed sandy varieties from medium (at the section top) to coarse sands with the inclusion of fine pebbles and gravel are located below. Cross-bedded sands. Loose and medium density, heterogeneous, with low water saturation, and water-saturated, with thin loam layers. The flora of the region is determined by high-altitude zones. In the lower belt of the mountains, up to an altitude of 600 m, there is vegetation of the desert type: wormwood, hodgepodge, prostate summer cypress. The steppe belt is expressed higher: feather grass, timothy grass, dog rose, honeysuckle along the river valleys - apple-aspen forests with an admixture of bird cherry, hawthorn. Forests consist of the Tien Shan spruce, Siberian fir. Then the alpine belt follows: cobresia, Altai violet, saxifrage, alpine poppy. In the zone of influence there are no rare endangered plants, included in the Red Data Book. There are no natural food and medicinal plants. The fauna of the region is mixed, represented mainly by small rodents, reptiles, birds and insects.

14. Characteristics of the possible forms of negative and positive impacts on the environment as a result of the envisaged activities, their nature and expected scale, taking into account their probability, duration, frequency and reversibility, preliminary assessment of their materiality. The comparison of the impact significance values for each parameter is assessed, using a point system by to the developed criteria in accordance with the Methodological Guidelines for assessing the impact of economic activities on the environment (paragraph 4.3). The spatial scale of impacts is local, the time scale of impacts is long-term small impact, intensity of impact is insignificant. The planned activity is aimed at the disposal of the rice production waste. The use of a pyrolysis oven minimizes the emissions, the waste in the form of organic condensate sludge is widely used in the pharmaceutical industry.

15. Characteristics of the possible forms of the transboundary environmental impacts, their nature and expected magnitude, taking into account their probability, duration, frequency and reversibility are absent.

16 The proposed measures to prevent, exclude and reduce the possible forms of adverse environmental impact, as well as to eliminate its consequences. The Project "Establishment of the pilot production for rice husk processing" has been developed in accordance with the standards and SNiP, has social significance, since it ensures the development of the region, creates jobs and improves the living standards of the local residents. Taking into account the recommendations and suggestions, set forth in the Project, when all the requirements of the controlling environmental and sanitary-epidemiological services are met, the construction and operation of this facility can be characterized as environmentally-friendly, not having a significant effect on the flora and fauna, soil cover, pollution of the surface and groundwaters, the atmosphere of the region under consideration. The Mitigation Plan:

1) During the planning works, soil moistening is provided for to reduce the dusting factor.

2) The generated SDW will be divided into classes and sorted out into separate containers with an indication of the type. An Agreement on the removal and/or disposal of the solid wastes will be concluded with the specialized organizations.

3) The production site territory and the surrounding area will be landscaped with vegetation in accordance with the species and types growing in the region.

4) The wastewater collection will be carried out in collectors with 100% waterproofing with the subsequent disposal by concluding a Contract for their removal with the specialized enterprises in the region.

5) The compliance with the emission standards for the period of construction and operation.

6) The control over the temporary waste storage sites (separate collection, compliance with the sanitary requirements for collection and storage, control of terms - no more than 6 months, for solid waste no more than 3 days).

7) The control over the water consumption and wastewater disposal (rational use of the water resources, use of the circulating water supply, control over the timely removal of household wastewaters).

8) Monitoring the efficiency of the catalytic afterburning of the exhausted gases.

9) Monitoring the efficiency of the dust collection system, timely replacement of the filter material.

17. Description of possible alternatives to achieve the goals of the specified envisaged activities and options for their implementation (including the use of the alternative technical and technological solutions and location of the facility) The rice cultivation waste is difficult to burn (smoldering), while the smoldering process is accompanied by a significant impact on the atmospheric air. The problem is acute in the region under consideration, where rice cultivation is the main agricultural direction. Thus, the main environmental direction of the Project is the disposal of the rice cultivation waste by setting up the production of nanostructured silicon-carbon materials, based on the plant raw materials, consisting of rice processing products. The envisaged activity is innovative. The implementation of the envisaged activities will be carried out at the expense of a grant.

1) in case of the transboundary impacts: an electronic copy of the document, containing the information on possible significant negative transboundary impacts of the envisaged activities on the environment

The Head of the Initiator of the envisaged activities (another authorized person): Bektemissov Bolat Nurbekovich

signature, full name (if any)

