From the data in the table shows that the high value of the index as much BOD characterizes biological waste water charge shall dairy.

In the meat industry, water is used in the process of washing carcasses, viscera of animals, cutting and dushirovanii carcasses. These effluents contain sand, blood, grease, food particles kanygi, hair, and so on. In the sausage shops water consumed in the preparation of meat, spice preparation, preparation casings, Waste water containing particles of fat, meat, blood, protein, salt.

Wastewater meat industry are different from dairy wastewater enterprises high BOD (microorganisms). This is turn increases the risk of reproduction of pathogenic bacteria and viruses. It is also necessary to note the lack of treatment facilities in major markets of Almaty where meat is slaughtered. Effluent used for meat processing are released into the small rivers are close to the markets. Given the available data on the average composition of the wastewater (Table 1 and 2), we propose a combined method of processing waste, which is the following: wastewater subjected to mechanical cleaning, which removes various mehanoprimesi, followed by pressure flotation stage (removal of emulsified fats, oils) waste water is subjected to coagulation reagent, where solids can be processed to obtain the feed product, clarified solution is supplied to the biological treatment after the removal of biomass, depending on the components of impurities, various methods of waste water purification using natural sorbents.

Rationale for the selection stage of purification is directly related to physical and chemical composition of the waste water meat and dairy enterprises.

Thus, we propose an effective method of wastewater meat and dairy industry to a level consistent use of environmental security to date.

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UTILIZATION HIGHLY PARAFFINIC OF OIL WASTES AND THE DEVELOPMENT OF SCIENTIFIC AND PRACTICAL FOUNDATIONS OF RESOURCE-SAVING TECHNOLOGIES

Tanzharikov P.A., Sarabekova Y.J.

Kyzylorda State University by Korkyt Ata, Kyzylorda, e-mail: pan_19600214@mail.ru

In Republic of Kazakhstan the intensive development of oil and gas industry play a leading role. The inevitable consequence is the increase of anthropogenic impact on the objects of the environment. In the areas of design, production, transportation and refining of crude oil recorded violations of the natural ecological balance.

Consumption of oil and gas in recent decades become one of the most important terms of economic development of Kazakhstan, which in turn consists of the five environmentally disadvantaged sectors of the domestic industry. In this regard, a new approach to the formulation and implementation of environmental projects, environmental protection in oil-producing regions, which is the practical realization of tasks set by the President of Kazakhstan Development Strategy until 2030: «The environmental, sanitary and epidemiological services, and standards bodies should work in accordance with priority goals» [1].

As the analysis of the problem and our research with technological waste should include: minimization of their generation, environmentally safe handling, the maximum separation of the groups already at the stage of education to enable the most efficient ways of recycling or disposal of waste in each group, the development of affordable and technically feasible technologies to involve waste of resource management. Need to develop methodological approaches that address the problem of disposal of industrial wastes are not the traditional ways and methods of improving the consumer properties. Such approaches to involve the waste of resource management should be the basis for strategies to deal with man-made waste and the appropriate technical solutions.

This suggests that the development of scientific and practical bases of resource-saving technologies of solid waste to ensure environmental safety Geosystems is the important economic problems whose solution requires the development of new conceptual approaches and eco-solutions.

Alarming increase of accumulated annual hazardous solid oil waste in the absence of recycling, leads to the alienation of land for long periods, which can be calculated for decades. At the same time, they are secondary material resources, which can be used in road construction, as well as gidroizoliruemyh materials instead of raw materials and to obtain a patent fuel.

Given that the waste oil has a significant impact on the environment, an important task is to develop and implement science-based standards of education oil waste at all stages of the cycle of oil production. Among all the problems in dealing with oil waste one of the primary advocates of optimal choice of recycling or disposal, providing a given level of environmental safety.

Our approach to recycling asphalt-resinous paraffin deposits (ARPD), consisting of organo-mineral mixes waterproofing designed to provide a material having a high physical-mechanical properties, using available and inexpensive components. As shown, the structure of organo-mineral waterproofing material that determines its physical and chemical characteristics, due to the properties, quantitative and qualitative components, technological methods, conditions subsequent hardening.

One of the key questions to identify the possibility of obtaining materials with desired physical

and mechanical properties is to assign the optimal composition of organo-mineral waterproofing mixture, which should be understood as a quantitative and qualitative combination of components, ensuring compliance with the general requirements for waterproofing design to the material.

To determine the optimal composition of organo-mineral waterproofing material performed laboratory tests of samples. Also, we have conducted field investigations on the experimental area, in order to justify and confirm the environmental safety of the technical efficiency of the developed design.

Our studies have established the optimum mixing ratio of organo-mineral waterproofing material in wt.% – Clay is 43–47, the sand – 15–20, lime – 10–15, AFS – 20–25, Rubber – 2–5.

Material composition is optimal given the physical and mechanical properties: compressive strength – 85–100 kg/cm^2, water absorption – 0,7–1,0%, the filtration coefficient – $0{,}95\cdot10^{-10}$–$2{,}0\cdot10^{-10}$ m/s. (Table 1).

Table 1

The results of laboratory tests of samples of the proposed organic-waterproofing-material of different composition

Consecutive number	Performance	Composition, wt.%						
		Lime-20 Sand-10 Clay-60 AFS-9 Rubber-1	Lime-5 Sand-25 Clay-40 AFS-25 Rubber-5	Lime-15 Sand-15 Clay-43 AFS-25 Rubber-2	Lime-10 Sand-20 Clay-47 AFS-20 Rubber-3	Lime-15 Sand-15 Clay-45 AFS-20 Rubber-5	Lime-12 Sand-17 Clay-46 AFS-22 Rubber-3	Lime-12 Sand-15 Clay-43 AFS-25 Rubber-5
		1	2	3	4	5	6	7
1	A compressive strength, kg/cm^2	37	40	85	120	100	95	88
2	Water Absorption, %	1,35	1,1	0,96	0,65	0,70	0,90	0,95
3	Filtration coefficient, $1\cdot10^{-10}$ m/s	5,50	4,40	0,90	1,44	1,55	2,00	1,60

Filtration coefficient is at the level of requirements of normative documents [5–7], shown to protect an anti-landfill facilities for the disposal and disposal of all waste types (Fig. 1).

The scientific value of the work is to extend the possibilities of increasing the waterproofing material production using waste oil.

Thus, control of movement of waste oil by minimizing their education, environmentally sound management, involvement of resource management is an important task and requires the development of new conceptual approaches, and environmental technology solutions. One way to address emerging environmental and economic problems is substandard in size briquetting of coal, which will translate it from the waste into the category of commodity products. Briquetted fuel is a mechanical and thermal solid billet product having a specific geometric shape, size and weight. It is obtained as a result of physico-chemical processes with the use of additives (binder) or without them. Briquettes shall meet the following requirements: have a weather resistance, mechanical strength, adequate porosity, temperature resistance, maintain a minimum quality of water (Fig. 2) [4].

Based on these studies, it is established technological regime briquetting process. The composition of the mixture, which are substandard coal, rice husk, and asphalt-resinous paraffin deposits (ARPD).

Varieties of complex physico-chemical, structural and rheological processes that occur during the formation of a briquette of structural framework, due to the large number of independent factors. It is therefore necessary to identify the most significant factors providing significant influence on the intensity of the adhesive and cohesive interactions autohesive and how, during the preparation of briquette mixture, and when pressed. The analysis allows to maximize the positive factors in the development of the optimal composition of briquetted toppliva with paraffin, coal and rice husk. Among the key factors that have a significant effect on the system struktroobrazuyuschee «AFS – coal – rice husk», above all, should indicate the nature of the chemical and physical characteristics of paraffin, coal and rice husk, and their ratio in the system and the condition of interaction. (Table 2).

For briquetting coal fines are intended to apply as a binder AFS and rice husks, which are able to combine disparate solids and keep them strong contact in conditions of significant external influences, that is, provide a solid structure to obtain briquettes [4, 5].

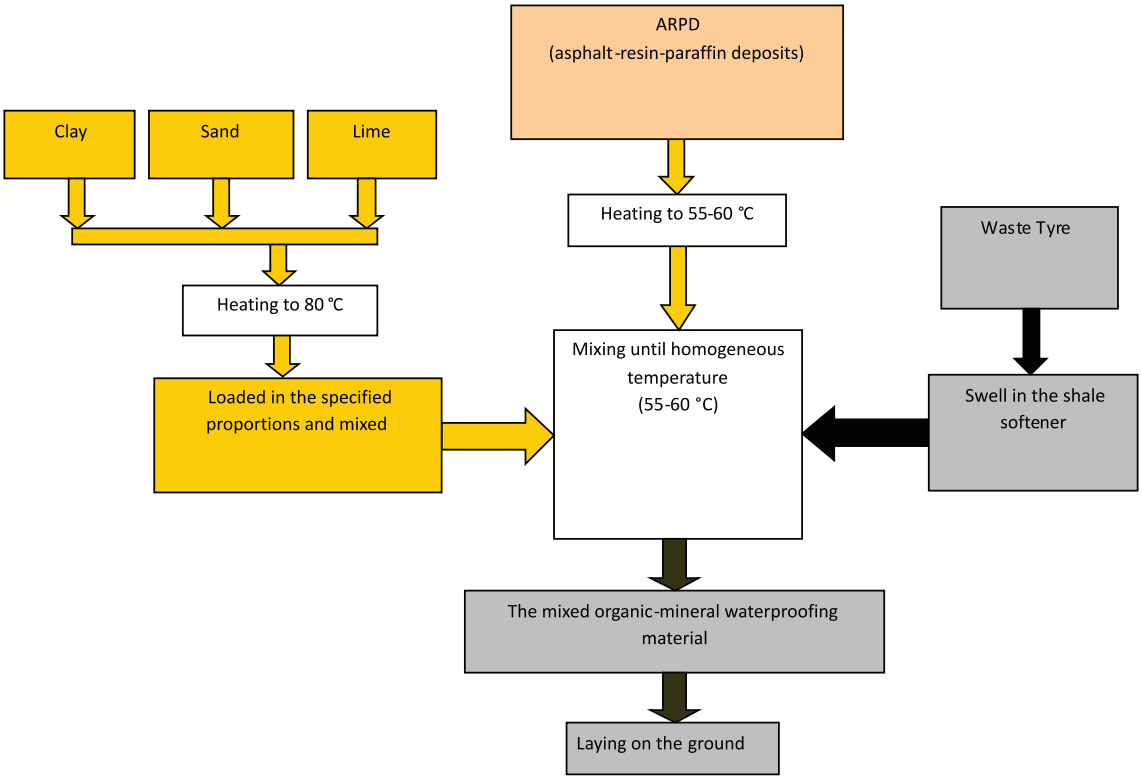

Fig. 1. Technological scheme of sample preparation of organo-mineral waterproofing material on the basis of ARPD

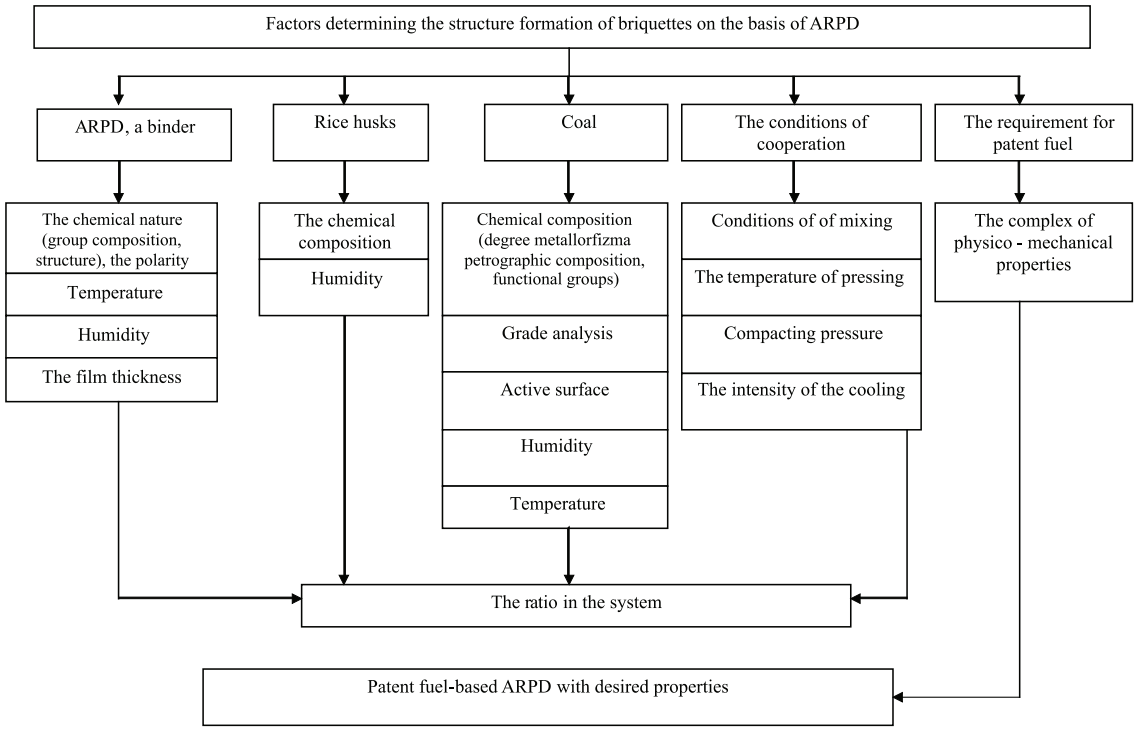

Fig. 2. Analysis of the factors that determine the processes of structure formation of briquetted fuel, based on the ARPD

Table 2

Characteristics of patent fuel prepared on the basis of ARPD

Mixture	The composition of patent fuel, weight%		
	Briquette from bituminous binder	Briquette-based oil waste	Briquette is based on the ARPD
Coal	92–94	33–91	60–75
Binders	6–8	9–67	20–25
Rice husks	–	–	5–15

Based on the foregoing, the technology of recycling highly parafinny oil as a waterproofing material, organic-based asphalt-resin-paraffin deposits (ARPD) and rubber waste, as well as the technology of production and use of patent fuel, to enhance the possibilities of increasing fuel and raw materials industries using oil and vegetable waste (rice husk) as a secondary raw material supply. Prepared by a working model for the production of fuel briquettes from asphalt-resin-paraffin deposits and rice husks. Established the amount of heat of combustion concider patent fuel. To do this, the calculations made by changing the concentration of components briquettes possible band reception. To calculate compiled a computer program and the results are shown in Fig. 3.

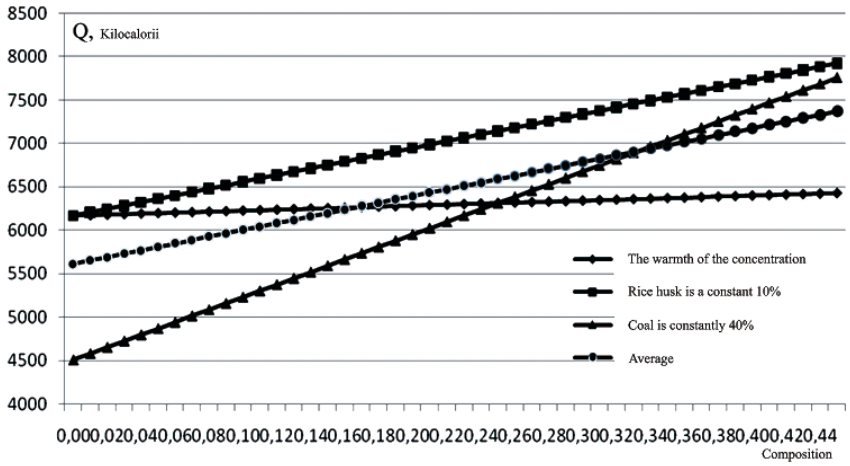

Fig. 3. The value of the heat of combustion of briquettes obtained at different concentrations

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THE DYNAMICS OF ACCUMULATION OF OIL WASTE AND METHODS OF THEIR RATIONAL USE

Tanzharikov P.A., Sarabekova U.Z.

Kyzylorda State University by Korkyt Ata, Kyzylorda, e-mail: pan_19600214@mail.ru

Oily waste, depending on the process of education, industrial wastes are 2–3 classes of toxicity and the main sources of environmental releases a wide range of hydrocarbons: liquid, solid or gaseous. For contaminants (pollutants) present in oil wastes are characterized by high water solubility and volatility, in addition, they are solvent can concentrate other substances. All of this oily waste poses a risk of contact with the natural environment, particularly, with the ecosystem.

Oily waste have a negative impact on virtually all components of the environment: surface water and groundwater, soils, vegetation, air, biota.

Alarming increase of accumulated annual hazardous oil waste in the absence of steamed scale