



SANPIN RULES AND METHODS OF FOOD WASTE ANALYSIS

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ABSTRACT

All developed countries of the world strive to produce waste-free products. modern technologies for processing not only household and construction waste, but also food waste are being created. The disposal of food waste is constantly being improved, creating new technologies that allow the processing of non-recyclable waste, which develops scientific work and research.

The implementation of the decision of the President of the Republic of Uzbekistan "On measures to rapidly develop the food industry of the Republic and fully provide the population with quality food products" dated September 9, 2020 No. PQ-4821 the decision of the Cabinet of Ministers in order to further support the newly established promising projects on the provision and production of food industry products.

issues of preparation of technical and economic justification of newly established prospective projects in the direction of food production and creation of infrastructure of new projects, as well as issues of food production are defined.

All developed countries of the world are striving for zero-waste production. We are talking about an environmentally friendly way to process not only household and construction waste, but also food waste. The disposal of food waste is constantly being improved, licensed companies are creating new technologies that allow the processing of unrecyclable waste.

Food waste refers to food products that are not suitable for further use. According to physical parameters, they are divided into hard, soft and liquid, which in turn form groups according to the following types:

Food industry wastes are also divided into plant and animal based on their origin. The first category includes vegetables, fruits, berries, grains, nuts and legumes. Animal products include eggs, poultry, meat, fish, shellfish, and insects. There is a list of products classified as animal and plant products (honey, salt, gelatin, food additives).

Food industry waste is regulated by the requirements of veterinary and sanitary regulations, SanPiN 42-128-4690-88.

According to SanPiN, the following requirements must be met for the disposal of food waste: food waste must be collected and transported only in closed containers;



only food scraps are stored in waste containers, it is forbidden to collect other types of waste in such containers;

it is forbidden to give leftover food products to foreign organizations or individuals

in special cases, a disinfectant is used for disposal to prevent these wastes from being used for feeding animals and birds;

According to SanPiN, disposal of food waste in kindergarten is carried out at least 2 times a day,

The primary raw materials are extruded by dry friction under high pressure and temperature, then mixed, pressed, crushed, heated, boiled, sterilized, and then obtained the shape required for use.

The most common way to dispose of food waste is landfilling. The remaining food is also used for the production of useful products in the form of food additives (pectin, bone meal, starch, organic acids, preservatives, active carbon). Expired raw materials are ideal for biogas production. Alternative fuels are in demand today more than ever in agriculture and utilities. It is actively used in the transport industry.

Biogas is produced through processing using expensive equipment. Disposal of this type of waste requires a mandatory license from the organization.

The disposal of food waste should be strictly carried out in various organizations where there are such residues. Violation of the legal requirements regarding the conditions and rules of waste processing will result in the application of fines and sanctions by the regulatory authorities.

Rules, regulations and methods of processing food waste

International standard "Conservation of resources. "Waste management" (GOST 30772-2001) defines the concept of "food waste" as food products that have completely or partially lost their original consumption properties during production, processing, consumption, as well as storage.

Such waste must be specially collected, stored and disposed of, and a number of rules and regulations have been developed for these processes.

To obtain high-quality feed raw materials, the time of heat treatment at a temperature of 100 °C is 1 hour, at 110 °C - 40 minutes. Sterilization helps to obtain feed that is easily digestible by animals.

Modern technologies make it possible to turn spoiled food into useful food supplements. This method produces starch, bone meal, pectin, organic acids, activated carbon and preservatives

Waste as a secondary resource is increasingly becoming a global problem in the world, while at the same time it has become an even bigger local problem within the borders of the nation-state, and a serious local problem in some cities.

Controlling production losses is a function of increasing product yield and production efficiency, while looking at opportunities to reduce waste and eliminate environmental pollution.

Drinking water is very important. In the food industry, a large amount of water is also used for technological purposes, for example, water is used for preliminary cleaning of raw materials, rinsing in trays and tubes, decolorization, pasteurization, cleaning of processing



equipment, and cooling of finished products. Water consumers differ in quantitative criteria depending on the different purposes of use, and in order to completely eliminate odors and tastes and ensure the same parameters at maximum water consumption, separate purification is often required.

Production in some food processing industries also poses potential odor control and air pollution problems.

Despite significant differences between specific types of production, pollution prevention and control approaches have many common features.

Industry	Coefficient
Beet sugar	1,48
Cane sugar	1,26
Grinding corn and wheat	1,22
Distillation	1,51
Food processing	1,19
Meat processing	4,03
Poultry processing	7,56

The water dependence of industrial food processing drives the development of water conservation and reuse programs, especially in water-scarce areas. In cases where low-quality water obtained without biological treatment can be used, reuse can significantly reduce both water consumption and waste. This avoids any type of anaerobic digestion because it eliminates the impact of corrosive, odorless decomposition products on equipment, the working environment, or product quality. Bacterial growth can be controlled by disinfection and by changing environmental conditions such as pH and temperature.

water treatment schemes are shown. In this case, the main factors affecting the volume of water consumed during technological operations are nozzle placement, temperature and pressure. For example, water used to cool dishes and air conditioning can be used for pre-washing vegetables and other foods.

The same water can be used to operate hydraulic conveyors, and some of this water can be used to cool ash from power plants.

then this water can be used for hydraulic conveyors and some of this water can be used for electricity.

The amount of pollution in processing plants can be reduced by improving the technology. For example, in the process of cleaning and blanching fruits and vegetables, a large amount of waste is generated during processing. Replacing water or steam in blanching operations with hot gas cleaning operations can reduce emissions by almost 99.9%. Likewise, dry caustic exfoliation can reduce biochemical oxygen demand by more than 90% compared to conventional exfoliation operations.

Conclusion: The production of food and non-food products in the industry is connected with the generation of many types of waste in large quantities. These are solid, liquid and gaseous wastes, some of which are considered toxic. The generation of harmful waste is mostly due to the fact that the technological processes of production have not been fully improved.



Household waste generated in human life is increasing in quantity. Nowadays, many things are being done to eliminate this problem.

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