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METHODS USED IN WASTEWATER TREATMENT AND FACTORS AFFECTING THEIR EFFICIENCY.

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ABSTRACT

The discharge of wastewater containing suspended solids into an open water body has a very negative impact on the condition of the water. The suspended solids sink to the bottom of the water, turbidizing the water, or slowing down or completely stopping the vital activity of bottom microorganisms involved in the process of self-purification of water. As a result of the decomposition of bottom sediments, harmful and even toxic substances, such as hydrogen sulfide, can be formed, which subsequently renders the river water completely unusable.

Keywords. radioactive substances, oil residues, heavy metals, pesticides, aerotanks.

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“OQAVA SUVLARNI TOZALASHDA QO‘LLANILADIGAN USULLAR VA ULARNI SAMARADORLIGIGA TA’SIR ETUVCHI OMILLAR”

ANNOTATSIYA

Tarkibida suspenziyalar saqlagan chiqindi suvlarni ochiq suv havzasiga tushishi undagi holatga juda salbiy ta’sir ko‘rsatadi. Suspenziya suv tubiga cho‘kib, suv tubini loyqalatadi yoki suvni o‘z o‘zini tozalash jarayonida ishtirok etadigan suv tubi mikroorganizmlarining hayot faoliyatini sekinlashtiradi yoki mutlaqo to‘xtatadi. Suv tubi cho‘kmalarini chirishi natijasida zararli va hatto oltingugurt vodorod kabi zaharli moddalar xosil bo‘lishi mumkin, bu modda esa keyinchalik daryo suvini to‘liq yaroqsiz holatga keltiradi.

Kalit so‘zlar. Radioaktiv moddalar, neft qoldiqlari, og‘ir metallar, pestitsidlar, aerotenklar.

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АННОТАЦИЯ

Сброс сточных вод, содержащих взвешенные частицы, в открытый водоем оказывает крайне негативное воздействие на состояние воды. Взвешенные частицы оседают на дно, мутнея воду, замедляя или полностью останавливая жизнедеятельность донных микроорганизмов, участвующих в процессе самоочищения воды. В результате разложения донных отложений могут образовываться вредные и даже токсичные вещества, такие как сероводород, что впоследствии делает речную воду совершенно непригодной для использования. Наличие взвешенных частиц также снижает проникновение солнечного света ко дну и останавливает процесс фотосинтеза у водных растений, что особенно важно для водорослей, производящих кислород, необходимый для их непосредственного участия в процессе самоочищения воды.

Ключевые слова: радиоактивные вещества, остатки нефти, тяжелые металлы, пестициды, аэротенки.

In the last decade, the society has increasingly used information about the state of the natural environment in its activities. This information is very necessary in maintaining the economy of people in their daily lives, in construction, in emergency situations. However, changes in the state of the environment and changes in various processes in the biosphere are also closely related to human activity. Determining the proportion of anthropogenic changes constitutes a special task. The degree of pollution of water, which is uniformly reflected in one area or another, is determined either through one or another system of indicators, or from the point of view of a limited set of descriptions of the quality and composition of water in a relatively basic amount of the description. As such descriptions, normatives have been adopted for water consumption or water use as well as for certain types of water objects. The main sources of pollution of open water bodies are wastewater, which is characterized by untreated or insufficiently purified household-farm, production enterprise, municipal facilities, agricultural enterprises, treatment preventive institutions, etc. [1,5].

The aim of the study The study of the hygienic characteristics of wastewater treatment processes formed by the population and industrial enterprises of the city of Bukhara and the development of preventive measures.

The research material and method. The need for measures to combat water pollution is reflected in the law "on sanitary and epidemiological tranquility of the population" (2015). From the information given by the authors, it becomes known that the protection of water bodies is very relevant.he need for measures to combat water pollution is reflected in the law "on sanitary and epidemiological tranquility of the population" (2015). From the information given by the authors, it becomes known that the protection of water bodies is very r.

Results and discussion. In recent years, fresh (drinking) water has become a unique natural resource, due to which the pollution of flowing and non-flowing water sources in Khol can be included among modern global problems that are extremely relevant. One of the most important directions of conservation policy is the development of methods and new principles for assessing the condition of water bodies, as well as improving their validity and environmental normalization of all types of anthropogenic impact. An important step towards effectively solving these tasks is the creation of a geoinformation environment for monitoring water bodies [2,6].

Another promising natural treatment facility for wastewater is filtration and irrigation fields, which have the property of treating up to 80% -90% of the organic matter contained in wastewater.nother promising natural treatment facility for wastewater is filtration and irrigation fields, which have the property of treating up to 80% -90% of the organic matter contained in wastewater. The irrigation field differs from the filtration field in that while in the first it is possible to plant technical crops (cotton, hemp, decorative plants), the filtration field serves only as wastewater treatment, in which the fields are divided into two – agricultural and communal areas. The main

function of municipal irrigation fields is wastewater treatment, and the cultivation of agricultural products is its secondary function. Agricultural irrigation fields, on the other hand, serve for the complete biological treatment of wastewater and the planned cultivation of agricultural products[5,7].

In the last decade, the society has increasingly used information about the state of the natural environment in its activities. This information is very necessary in maintaining the economy of people in their daily lives, in construction, in emergency situations. However, changes in the state of the environment and changes in various processes in the biosphere are also closely related to human activity. Determining the proportion of anthropogenic changes was a special task. The degree of pollution of water, which is uniformly reflected in one area or another, is determined either by tassavurs on its quality, through one or another system of indicators, or from the point of view of a limited set of descriptions of the quality and composition of water in a relatively basic amount of the description. As such descriptions, normatives have been adopted for water consumption or water use as well as for certain types of water objects. The main sources of pollution of open water bodies are wastewater that is formed from untreated or insufficiently purified household-farm, production enterprise, municipal facilities, agricultural enterprises, treatment preventive institutions, etc. [1,3].

No living creature, including humans, can live their lives without water. Three quarters of the human body is made up of water. 70% of the Earth's surface is made up of water, but not all of it is suitable for use, as a result of human life activities, freshwater reserves have decreased, as well as poor quality. It is the main cause of pollution of human Water Resources. Contamination of open and underground water sources by wastewater was caused by direct mixing of wastewater from an open source or groundwater without adequate treatment of the wastewater used by humans during their activities and lifestyles. The water was also contaminated again by damage to the waters of various production enterprises, in which the water content was mixed with various amounts of radioactive substances, oil residues, heavy metals, pesticides and caused water pollution to varying degrees. Open water bodies are also polluted by radioactive substances and heavy metals contained in wastewater from various industrial enterprises.

Wastewater can be treated in a natural way, and under favorable conditions, this can be done practically in the process of self-purification of water. However, contaminated water bodies require a certain amount of time to be treated in a natural way, for which it is necessary to reduce or completely stop waste water from polluting sources to be disposed of. Industrial waste not only pollutes water, but also poisons them, while the treatment of such water is very expensive for enterprises, therefore, a number of production enterprises prefer to throw such water into open water bodies on the side, and only return from the idea of throwing its wastewater into an open water body when the open water body becomes completely unsuitable. It is worth saying that for Man and the environment, waste belonging to the hazard class I and II poses a great danger, including radiofaol isotopes, dioxin, pesticides, benzapirene are considered the most dangerous substances [8].

The program for checking sewage treatment facilities carried out by a sanitary doctor puts the following tasks in front of him: drawing up an object passport; conducting sanitary control over the performance of cleaning devices; identifying the causes of poor water quality and studying whether the conditions for disposal of wastewater in emergency situations do not correspond to the norm. Sanitary-topographic, sanitary-technical and sanitary-epidemiological examinations were carried out to carry out each of the assigned tasks.

In its endless movement, water brings a lot of additives and suspended substances with it or cleans them by itself. A huge number of additives in the composition of the water, along with rain, snow or groundwater, fall on it in natural ways, while the same path is also traversed by pollutants, which are characteristic of many human activities. Despite its extremely toxic and harmful composition, the wastewater of the enterprise is safer than natural contaminants, since there is an opportunity to control them at the place of dressing, to reduce their quantity. Universal water consumption for agricultural and domestic purposes is approximately 9% of river flows, so the lack

of fresh water leads to situations that arise not so much as the direct consumption of hydroresources, but the deterioration of their quality[3,5].

In the course of scientific research, disposable samples were used if specific polluting ingredients were detectable in the effluent produced. In the selection of sinamat sites from an open body of water, water was obtained from the use site in the lower and upper parts. In this case, the sinama was taken at the same time at several points. Taking a test from water is obtained on the basis of a standard methodological manual (Prokopeva M.InIn the course of scientific research, disposable samples were used if specific polluting ingredients were detectable in the effluent produced. In the selection of sinamat sites from an open body of water, water was obtained from the use site in the lower and upper parts. In this case, the sinama was taken at the same time at several points. Taking a test from water is obtained on the basis of a standard methodological manual (Prokopeva M.V.2014).

In the process of operation of the sewage treatment station, a sufficient number of sinks are dressing, they are dressing from primary and secondary clarifiers, grilles. The raw well, which is characteristic of primary tinctures, has a bad smell, is epidemiologically dangerous due to the storage of large amounts of helminths, enteropathogenic bacteria and viruses in its composition, in addition, this precipitate is very slowly dehydrated.n the process of operation of the sewage treatment station, a sufficient number of sinks are dressing, they are dressing from primary and secondary clarifiers, grilles. The raw well, which is characteristic of primary tinctures, has a bad smell, is epidemiologically dangerous due to the storage of large amounts of helminths, enteropathogenic bacteria and viruses in its composition, in addition, this precipitate is very slowly dehydrated. There are several groups of sediment decontamination facilities: 1) devices for solid phase compaction (il compactors); 2) sediment stabilization devices (metantenk); 3) sediment dewatering devices (vacuum-filters, filtrpress, subsurface and surface il fields); 4) sediment thermosetting devices; 5) deworming devices; 6) composting devices.) sediment stabilization devices (metantenk); 3) sediment dewatering devices (vacuum-filters, filtrpress, subsurface and surface il fields); 4) sediment thermosetting devices; 5) deworming devices; 6) composting devices. Il compactors are applied with the aim of increasing the concentration of active il, which are of gravitational type (radial, vertical, horizontal) and are given a neutralized precipitate accumulated in raw sediment and secondary incinerators. The thickness of the sediment that accumulates in it should not be less than 1 m. As a result of dehydration, the accumulated water is returned to the aerotenk, while the sediment is sent to the il fields[2,4].

In all flowing and non-flowing water sources on Earth, the process of self-renewal goes away, but this is done very slowly in natural conditions. When the amount of industrial wastewater was low, water bodies independently faced this problem, but the rapid development of industry, the increase in population from year to year, the creation of large cities, along with them, does not have the opportunity to clean up the amount of flowing water, which is equally increasing. To do this, it is necessary to build complex treatment facilities and ensure their effective operation, depending on the amount of wastewater being supplied, its composition, the aero-climatic conditions of the area, the geographical location of the place. The anthropogenic impact on water bodies of the last decade, global warming, has led to a sharp reduction in the number of water sources that are suitable for use as the effects on Water Resources increase in the population. In particular, according to the report of the Forty-Third Plenary Session of the Supreme Assembly of the Republic of Uzbekistan, trees are drying up due to a decrease in groundwater levels up to 3-4 meters in the territory of Zarafshan National Park, located on the banks of the Zarafshan River. The illegal extraction of sand and gravel in karadarya and Akdarya has its negative impact on the Environment, Water Farm facilities.n particular, according to the report of the Forty-Third Plenary Session of the Supreme Assembly of the Republic of Uzbekistan, trees are drying up due to a decrease in groundwater levels up to 3-4 mete.

Conclusions. The territory of the Republic of Uzbekistan will establish the quality of water bodies in accordance with hygienic requirements for the protection of open water bodies San Q and

M 0318-15. A body of water or a specific part of it is classified into two categories of water use. The first category of water bodies includes those used for centralized economic-drinking water supply as well as for food enterprises, while the second category includes bodies of water that have recreational value or are used for bathing, sports, recreation and irrigation of agricultural crops. Water quality requirements are determined by comparing samples taken 1 km above the water use point with established standards.

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