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Using a Filter Made From Local Waste Raw Materials to Reuse Contaminated Water from Car Wash Sinks

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ABSTRACT

One of the main problems of our time is information about the problem of conserving or reusing drinking water. The new filter recommended in the article is based on the waste of waste and is used to clean the water of car wash offices. Days and economic efficiency of filter application discussed on the basis of tables. The invalid film is used to contain the founding tool in moist protection of the foundations of buildings and structures. They say that the recommended filter, which will be used as scientific innovations, can be used as time as a waterproofing material. Conclusion As the filter is recommended to use mobs with a water storage machine. This filter is recommended to introduce production widespread.

Introduction.

Nowadays, it is important to save water and use it rationally when using drinking water. Decrees of the President of the Republic of Uzbekistan on drinking water supply for 2017-2021 and "On the integrated development and modernization of sewerage systems" are aimed at consumer demand for drinking water and the general population, especially rural residents. aimed at creating more comfortable and appropriate social and living conditions. In 2022-2026, the main goal of increasing the efficiency of drinking water supply and sanitation in our country is to ensure the use of high-quality drinking water in all regions.[1] The decision also provides for the "Creation of a Clean Drinking Water Fund," which intends to use its funds for the further development of the drinking water supply and sewerage system in our country. As a result, given the need for drinking water, a lot of research is being carried out to improve the efficiency of water treatment.

Research materials and methods

Nowadays, the demand for car wash fountains is increasing, which leads to an increase in the need to supply water to such fountains. As demand increases, this may lead to some difficulties in treating water and redirecting it for reuse. To prevent these problems, recycling or filtering unusable water within the substation itself results in reduced water consumption from the central system and improved operating efficiency. [2] Given these problems, waste disposal was

considered preferable. use animal hair (sheep's wool). A filter made from this waste is also cheap and convenient in terms of production technology. To use this filter, it is necessary to design a pool in the underground part of the car wash[3,4].

Research result

In the underground part of car washes, it is advisable to organize water storage ponds, and in the passages from these ponds to each other, use a new filter made of animal hair as a filter. The purpose of this is to ensure that the cloudy water in the pool drops down to some of the sediment and then ensure that the water containing the car oil holds the oil and then flows into the pool. This process is repeated in three ponds, resulting in 70% pure water.

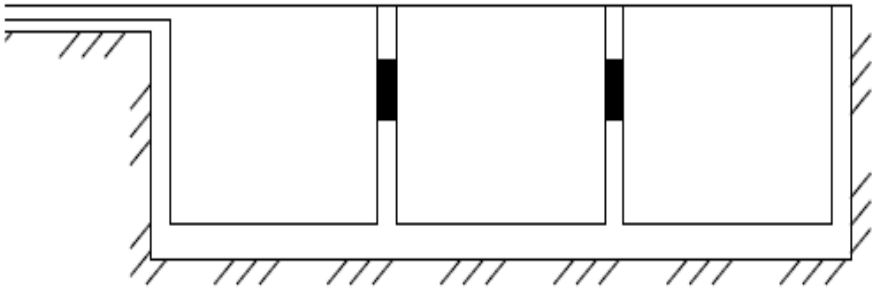

Figure 1. Schematic view of car washes

The new filter (animal wool) retains all types of alkalis and oils in the water. The turbidity of the water remains in the pool itself due to its sediment. As a result of the use of such materials, oils from the machine mechanism come to the surface of the water and are captured by the filter when moving from one pool to another, and the water in the next pool is also purified by this process.

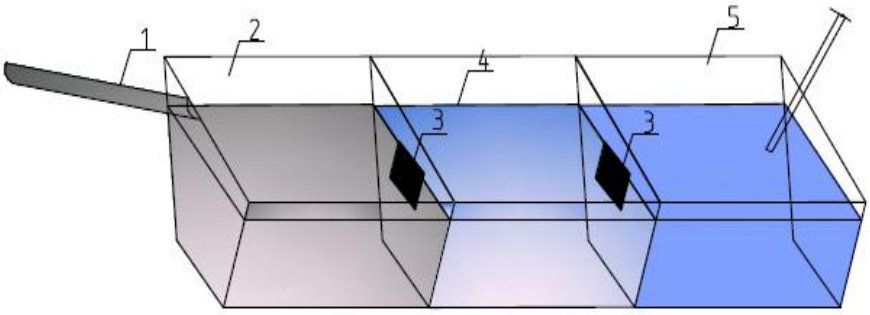

Figure 2. Schematic illustration of a recommended water storage tank for car washes. 1) contaminated water; 2) a pool with contaminated water; 3) filter (from animal fur); 4) semi-filtered water; 5) purified water.

Water spray devices for washing one car, if a Du40 car wash uses 15-20 liters of water with a pressure of 9 MPa, if an average of 20-25 cars are washed per day, and also if on average 60-80 cars are washed per season, then the yield and Let's calculate water consumption.

Test periods	Number of cars (pcs.)	Water consumption (l)	Number of filters (pcs.)
1 in the day	25	500	1
1 per week	175	3500	7
1 in the month	700	14000	28

Average per season

Test periods	Number of cars (pcs.)	Water consumption (l)	Number of filters (pcs.)
1 in the day	70	1400	3
1 per week	490	9800	20
1 in the month	1960	39200	79

Discussion

It can be seen that on average 14 m^3 of water per month can be recycled and used for consumption. This leads to a reduction in water consumption coming from the central system. Unused filter can be used as a waterproofing material on the sides of foundations on construction sites. This allows waste to be used. The use of such a system at district and regional car washes will lead to the correct use of drinking water and speed up the work process, as well as increase water consumption in other industries.

Conclusion

The article provides recommendations for saving water coming from the central network and used for consumption of car wash fountains, and its reuse by cleaning the fountain itself. The result achieved is, first of all, to prevent pollution of the environment by animal fur. Next, the effect of water purification was developed using production waste and the use of a spent filter as a waterproofing material for the foundations of buildings and structures.

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