

The problem of disposal sludge treatment plants

Nasyrov I., Ahmetov V., Miftahov M., Mavrin G., Sokolov M.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2016, International Journal of Pharmacy and Technology. All rights reserved. Consider the features of the formation and disposal of sludge. It is noted that the methods of sludge treatment in digesters or throw them in the sludge beds are not perfect. The presence of high concentrations of nitrogen and phosphorus in sewage sludge would allow its use as a fertilizer, but it is necessary to consider that may contain heavy metals that contaminate the environment. It noted a huge amount of sludge produced per year in Russia. A preferred method of disposal of sewage sludge sludge storage in the fields. This method results in the exclusion of large areas. Sludge fields pose a threat to the environment due to the high content of dangerous viruses, bacteria, harmful gases, hazardous chemicals In this work it was studied the composition of the sludge. It has been determined that the precipitation contained a significant amount of organic material that is fat, protein, carbohydrate, etc. The aqueous phase of the sludge is characterized by a neutral environment. The values obtained for BOD₅, reflecting the total content of organic substances in the water, allow to judge that this water is classified as very dirty water. Measurements of pollution sludge with heavy metals. The measurements of the mass of content of heavy metals in the aqueous phase of the sludge (soluble form) and in dry matter (total content) showed that the concentration of heavy metals in the dry sediment is significantly higher than in the aqueous phase of the sludge. The measurement results on the toxicity of the sludge lead to the conclusion that sludge have acute toxic effects and are 4 cash danger The results of research on sludge oil content allow us to speak about the excesses of this indicator.

Keywords

Pollution, Recycling, Sewage treatment, Silt card, Sludge