

Removal of Fragrances and Pharmaceuticals from Waste Water by Biological Treatment

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Abstract

This is the review paper which is prepped by survey of the waste materials generated from hospital is very hazards for human life. There is different type of waste that is originated from hospital. Like waste of tablets, the waste generated from labor room, waste of medicine. Radioactive substance waste, pathological waste and different type of chemical waste. Also waste generated by panty canteen. All the waste are very harmful for environment and human and animal life. Than we minimize the waste by different type of Waste water.

Keywords: Hospital waste, Labor room, Pathological, Environment.

1. Introduction

In past few year lot off biomedical waste generated In hospital and their handling and collecting problem are measure. Than the responsibility of the hospital administrator for disposal of waste material is compulsory. This type of waste polluted the environment so we can treat the bio chemical waste by some method and disposal equipment. Indian government are also launched some type of plan for reducing this type of waste. In India minimized the waste by different type of method. India produces 484 ton bio medical waste in a day. Currently in Russia the most widely used method for chemical disinfection of clinical waste in the field of formation is with the application registered disinfectants. However, this method has a number of significant disadvantages: it is costly, worsens the conditions of workers, moreover, destruction of pathogens is not always guaranteed due to incomplete impregnation of waste disinfectant solution. Around the world to this type of waste used methods of thermal sterilization and disinfection. Thus, centralized incineration remains the most used method of waste treatment health in the European Union. But the process of incineration is not the best solution. Installations for the incineration of waste – “incinerators” were widely distributed in the world 10-15 years ago, but since then a lot has changed. As it turned out, the burning is not as harmless as it seems at first glance, and for all virtues have a number of drawbacks. For example, the formation of dioxins, which cause a number of diseases, includes cancer, immune system damage, and disruption of reproductive and other body systems. [2]

2. Literature review

Waste minimized from waste water treatment plant which is very important discuss for this review paper. In waste water treatment plant many process are adopted like activated sludge process, biological treatment, primary, secondary, tertiary system are minimized the waste. Waste water treatment plant include agricultural waste, hospital waste, industrial generated waste etc. data are analysis.

3. Methodology

- Waste water collected approximate every month for one year from inlet and outlet of secondary purifier.
- In biological treatment multiple step are adopted .The treatment process in three zones. By example The nitrate generated in the oxic zone(o₂ penetration depth). Reuse with mixed liquor for the anoxic zone (sea water,fresh water, area depleted of dissolved oxygen)where denitrification takes place.
- The return sludge from the settler is recycled to the absence in the air where the inlet and sludge are mixed under absence in the air.
- Firstly, the existing practice of clinical waste management was identified. Interviews were held with health care workers about the existing problems. Interview group included representatives of the regional and city hospitals, of the treatment and rehabilitation institute "Palace of health", of the Ministry of Health and of the processing plant of clinical waste. The collected information about the waste management practices showed the relations in the field of the clinical waste management. [4]
- Secondly, the program for minimization, prevention the formation and competent division of clinical waste has been designed. It was considered that the reduction of waste generation in health care settings is possible due to introduction of more advanced technologies.
- The third step reviewed and analyzed the current classification and the legislative framework in the field of clinical waste. As a result, it was concluded that the Russian regulatory system relating to the clinical waste, it is necessary to revise and modernize. Analysis of the UK experience in the treatment of clinical waste has shown that it is necessary to consider the possibility of processing clinical waste and their further use as secondary material resources, or in the form of energy.
- The fourth stage included examining the possibilities for communication of the existing system of clinical waste with the existing municipal system for the collection, transportation, processing and disposal of solid waste. It is important to note that clinical waste should not be considered separately from the city complex system of waste management. The present study examined the transport routes of vehicles that collect and remove of solid waste in the city of Rostov-on-Don. By considering the existing routes of waste tracks can be concluded that the considered network of health care institutions can be brought into a single system of export, thus refers to the removal of clinical waste, or Class A, which is not subject to special requirements for disposal, or already disinfected waste.
- Finally, raising awareness and control in decision-making and management of clinical waste has been developed. At this stage the existing system of control over the implementation of legislation was investigated and proposals for its improvement were developed with experience of UK. [1]

4. Discussion

For Rostov-on-Don, it was decided to develop a centralized system that consists of placing powerful installations in the basic settings. This decision is caused by the fact that the placement of units in each health facility will require significant investment, and in most cases, will not wash equipment operating at full capacity due to the small volume of waste to be disinfected. In this study, using a geoinformation system ArcGIS ESRI for the city of Rostov-on-Don has developed a comprehensive system of health care waste management.

5. Conclusion

Thus, as a result of the study were achieved the following results:

1. The existing problems in the field of clinical waste management in Russia was analyzed.
2. The methodology for establishing a system of clinical waste management in Russia.
3. The database of municipal health-care network in Rostov-on-Don in a medium of ArcGIS ESRI.
4. Application of modern methods of disinfection was developed. [3]

6. Reference:

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