Evaluation of wastewater treatment plant Specialty and subspecialty Hospital Mehr Ahvaz, Iran

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Abstract

Background and aim: Today, hospital waste is one of the problems facing human societies. Hospital waste contains toxic and dangerous compounds, infectious substances, biological microorganisms, toxic chemicals effluents (resulting from x-ray film processor and disinfectants) and pharmaceutical compounds. The absence of treatment and improper disposal can be a very dangerous to the environment and human's health. The purpose of this study was to evaluate the performance of wastewater treatment and disposal condition and the quality of hospitals effluent of Mehr Hospital in Ahwaz.

Materials and Methods :This cross-sectional descriptive research studied the wastewater treatment and disposal systems condition and effluent quality in Mehr Hospital in Ahwaz. 12 mixed samples were collected and tested for pH, BOD, COD, TSS and TC in the effluents of wastewater treatment plants using the current standard methods, the EPA.

Results: The results showed that Mehr hospital had the highest efficiency in removal of COD, BOD and TC. Mean removal of TSS, BOD, COD and TC in outlet %۸۴, %۸۷, % ۷۹and %۹۲, respectively. The mean value of free chlorine residual in outlet wastewater was 0. ۴mg/L.

Conclusion: The mean value of TSS, BOD, COD and TC in the outlet wastewater of the studied hospitals decline the maximum allowable threshold of the environmental conservation administration, which indicates the efficiency of wastewater treatment systems.

Keywords: Mehr Hospital, wastewater, wastewater treatment plant, Ahwaz

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