

Treatment Facilities for Hygienic Fish Market Wastewater

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Hygienic fish market in Indonesia is now being developed to have better products and healthy condition in the fishermen and vendors community. Inefficiency and inappropriate of wastewater treatment facilities can cause the water quality of the coastal nearby becomes deteriorated. In this research, we investigate the fish market activities condition in related to the wastewater generated. Samples were taken from wastewater generated by washing activities in Cituis Fish Market; thus the dominant parameters need to be treated can be determined. Data of wastewater quality was collected also from previous researches. The results show that BOD, COD, TSS, E.Coli, oil, and grease concentration have to be reduced to meet the government standard. Determination on treatment unit was conducted by considering the availability of land, user-friendly technology, treatment capacity, low-cost maintenance, and side-product potency. The recommended wastewater treatment unit is called up-flow modified septic tank. Trickling filter is installed to modify the conventional septic tank in order to increase the biological processes inside the tank. Sedimented waste in septic tank chamber can be used for other purposes such as manure and pellet.

Keywords: wastewater treatment facility, fish market wastewater, modified septic tank