

THE EFFECTIVENESS OF REDUCING COD LEVELS BY USING THE BUBBLE AERATOR METHOD IN AMANAH LAUNDRY WASTE IN 2022

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Along with the rapid development of services today, people's lifestyles are also increasing, one of the most developed services in the community is laundry services. "Amanah Laundry" in Ringinagung Village is a small-scale industry, but if the wastewater produced is not treated properly it will pollute the environment. Many laundry businesses dispose of their wastewater directly into water bodies and sewers, this can cause disturbances and impacts on the environment and even health. This study aims to determine the effectiveness of reducing COD (Chemical Oxygen Demand) in laundry waste by aeration method using a bubble aerator based on variations in time of 45 minutes, 60 minutes, and 75 minutes.

This type of research is descriptive research. Sample examination was examined to determine the difference in results between measurements of chemical quality on COD levels in laundry waste and the quality standard of Governor Regulation Number 52 of 2014. This study consisted of 3 treatments, namely variations in time of 45 minutes, 60 minutes, 75 minutes with 5 replications.

The results showed that the highest COD levels were found in the 75 minute time variation of samples 1,2,3,4, and 5 with the highest decreasing percentage of 83.15% and the lowest percentage of 71.50%. With these results, the COD level of laundry waste after treatment has met the requirements for the quality standard of liquid waste in East Java Governor Regulation No. 52 of 2014 of 150 mg/L.

Keywords: Aeration, Bubble Aerator, COD