ABSTRACK

The rise of water pollution due to unfavorable domestic wastewater treatment makes the government think of the right way to treat domestic wastewater, one of which is by implementing a communal WWTP system. But in reality, the communal WWTP has not been able to completely eliminate pollutants that have high levels of good. This study aims to make a reactor that can be used as a post treatment in wastewater treatment. In its implementation, this study uses andesite stone as an attached growth media for microorganisms and uses an aeration system with three tray compartments and use HRT 4 hours in the waste water flow, in the form of tray aerator so as to allow good contact with air. From the results of the study, both reactors can eliminate BOD levels up to 98% and ammonia levels up to 60%. This shows that the reactor has a good ability in removing BOD and Ammonia levels in the water processed by the Mendiro communal WWTP so that it is feasible to be applied as a post treatment.

Keywords: *WWTP, Andesite Stone, Reactor, BOD, Ammonia*