

ABSTRACT

**REDESAIN AERATION COLUMN USING ACTIVE MUD IN
WASTE POOL**

IN PT PUPUK SRIWIDJAJA PALEMBANG

PT Pupuk Sriwidjaja Palembang is a company that produces urea fertilizer which is distributed from domestic to foreign countries, in the process of making urea fertilizer must have waste in each process, both liquid, solid and gas. The processing of wastewater in PT Pupuk Sriwidjaja Palembang has waste treatment starting from MPAL (Minimization and Waste Water Treatment) to aeration plants located on the outskirts of the Palembang city river, even though the processing of liquid waste at PT Pupuk Sriwidjaja Palembang has gone through a considerable process still there is a high level of waste ammonia equal to 3270 ppm which occurred on July 23, 2018, a good ammonia level is discharged into the river by 500 ppm, therefore I propose using activated mud as a new method, which can be used by PT Pupuk Sriwidjaja Palembang as a liquid waste treatment so that the liquid waste to be discharged into the river does not damage the environmental costs that need to be spent using the activated sludge method amounting to Rp 15,047,650, the blades are calculated investment costs by using a payback period so in 5 days the costs can be returned.

Keywords: Pupuk Sriwidjaja, Aeration, Waste Pool.