

ABSTRACT

PT Hok Tong is one of the crumb rubber factories in Indonesia which is producing and exporting Standard international rubber (SIR) and has some different crumb rubber waste based on the rubber material every day. Nowadays, PT Hok Tong is still using chemicals like alum and caustic soda in their water treatment. This treatment is too conventional and ineffective looking through the output, so that the writer suggested to using activated sludge. In order to choose the material to process the rubber waste effectively, the writer used *Analytical Hierarchy Process* (AHP). The criteria which are considered to process this are the output, the preventive cost, the investment cost, time and continuity. The highest priority score is the output 39.6%, the second is cost 30,1%, the third is investment cost 13,7%, the forth is time 9,5%, and the last is continuity 7,1%. The result of this research using the *Analytical Hierarchy Process* (AHP) at PT Hok Tong is using the activated sludge, the score is about 0,713 or 71,3%, the score for chemicals is 0,287 or 28,7%.

Key words : *Analytical Hierarchy Process Method (AHP), The Material To Process The Rubber Waste, Activated Sludge, Chemicals.*