ABSTRACT

One of the most important problems with designing and maintaining a landfill is managing the leachate that is generated when water passes through the waste. Problems that obtain in leachate treatment installation are drying at dry season and overflow at rain season. Besides, leachate effluent concentrations is higher than standard quality according to Central Java Province regulation 10/2004. the extensive area of landfill and differences topography caused difficulty if only one installation built. Installation that will be evaluated and designed is the installation located on zone 1 Putri Cempo landfill and will be the pilot project for the other zones. According to those conditions, leachae treatment installation will be design with this steps, identifying amount of leachate flowrate, identifying leachate quality and evaluating leachate treatment exsisting, analyzing and planning alternative processing of new leachate treatment and designing new leachate treatment installation, calculating cost budget plan to build new leachate treatment plant. New leachate treatment are 2 anaerobic ponds, 2 facultative ponds, 2 maturation ponds and wetland. Budget plan to build leachate treatment amount Rp. 325,420,000.00.

Key word : leachate, pilot plan, leachate quality, design, leachate treatment installation