ABSTRAK

PENGARUH PEMBUANGAN LIMBAH INDUSTRI

TEPUNG TAPIOKA TERHADAP KUALITAS AIR PERMUKAAN PADA DEBIT ALIRAN RENDAH

(Studi kasus : Industri Tepung Tapioka di Desa Parakan, Kecamatan Purwanegara, Kabupaten Banjarnegara)

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Di Desa Parakan Kecamatan Purwanegara Kabupaten Banjarnegara, terdapat komplek industri pemrosesan singkong untuk dijadikan tepung tapioka, sedangkan limbah yang dihasilkan di buang langsung ke Sungai Parakan, sebuah aliran sungai yang membentang sepanjang Desa Parakan. Hal ini menyebabkan rusaknya ekosistem perairan di aliran sungai tersebut, yang jelas-jelas sungai tersebut merupakan sungai yang peranya sangat penting untuk kehidupan masyarakat sekitar, apalagi pada musim kemarau dimana sungai masih sering digunakan untuk kegiataan sehari-hari diantaranya mencuci, mandi, bahkan untuk di konsumsi. Untuk itu penelitian ini dilakukan, dengan tujuan untuk mengukur kadar air yang terkandung pada aliran sungai yang tercemar limbah industri tepung tapioka, diantaranya ; *Biological Oxygen Demand* (BOD), *Chemical Oxygen Demand* (COD), *serta Dissolved* Oxygen (DO). Serta dapat merencanakan sistem pengolahan air limbah (IPAL), dan mendapatkan data kurva penyebaran limbah dari pemodelan kelenturan oksigen.

Kata Kunci : Tapioka, COD, BOD, dan DO.

ABSTRACT

INDUSTRIAL WASTE DISPOSAL INFLUENCE TAPIOCA FLOUR AGAINST WATER QUALITY FOR LOW FLOW DISCHARGE

(Case study: Tapioca flour industry in Parakan village, Purwanegara District, Banjarnegara Regency)

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In the village of Parakan Sub-district of Banjarnegara District, there is a complex of cassava processing industry to be used as tapioca starch, while the waste produced in direct discharge to Parakan River, a stream that extends along the Parakan Village. This led to the destruction of the aquatic ecosystem in the river flow, which obviously the river is a river that is very important to the life of the surrounding community, especially in the dry season where the river is still often used for Daily activities include washing, bathing, even for consumption. Therefore, this research is done, with the aim to measure the moisture content contained in the flow of rivers contaminated with the tapioca flour industry, including; Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), and Dissolved Oxygen (DO). As well as being able to plan wastewater treatment Systems (IPAL), and obtaining waste dispersing curve data from the modelling of oxygen flexibility.

Keywords: tapioca, COD, BOD,and DO.