ELECTRONIC THESIS AND DISSERTATION UNSYIAH

TITLE
PRARANCANGAN UNIT HYDROLIZER PADA PABRIK UREA

ABSTRACT

Preliminary unit design Hydrolyzer using wastewater urea plant as the raw material. Hydrolyzer unit’s raw capacity is 35 tons/h with 330 days working days per year. Used 36 person as employees. Location for establishing this unit is planned in Urea plant’s area, Dewantara districts, North Aceh, Aceh province, with area of 15,900 m². The water resource for the unit Hydrolyzer is will take from Peusangan River.

The results of the economic analysis are obtained as follows:

a. Fixed Capital Investment = Rp. 275,118,299,579,-
b. Working Capital Investment = Rp. 48,853,335,590,-
c. Total Capital Investment = Rp. 323,971,635,169,-
d. Production Cost per year = Rp. 276,421,066,549,-
e. The sales per year = Rp. 499,958,205,120,-
f. Net income per year = Rp. 157,335,917,694,-
g. Pay Out Time (POT) = 2 tahun 6 bulan
h. Break even Point (BEP) = 21%

The conclusion based on the result is the preliminary unit Hydrolyzer soap noodle is capable for continuing to the construction step.