ABSTRACT

PREPLANNING OF 1,3-PROPANEDIOL INDUSTRY FROM GLYCERINE AND NH₄OH
CAPACITY OF 40,000 TONS/YEAR

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1,3-Propanediol industry from glycerine and NH₄OH, will be hold in Gresik, East Java. It is consider by supply of raw material, transportation, human resources and surroundings.

This Industry will be producing 1,3-Propanediol with capacity of 40,000 tons/year, in operation time 24 hours per days, 330 days/year. Raw material will be used are glycerine, it’s about 15,404,040.4 kgs/hours and NH₄OH 134,440.9 kgs/hours.

The requirement supply of utility consist of: water, steam, electricity, fuel, and dry air.

This Industry organisation is Perseroan Terbatas (PT) using line and staff structure with amount of employee are 185 persons.

From the economic analyses:

- **Fixed Capital Investment** (FCI) = Rp 714,207,670,373
- **Working Capital Investment** (WCI) = Rp 840,244,318,086
- **Break Even Point** (BEP) = 59.5 %
- **Shut Down Point** (SDP) = 22.96 %
- **Pay Out Time after taxes** (POT) = 2.38 tahun
- **Rate on investment after taxes** (ROI) = 27.19 %

Consider of the explanation above, the holding of 1,3-Propanediol must be learn more, because this industry have a good profit and has a good perspective in the future.