ABSTRACT

MANUFACTURE OF MONOBASIC POTASSIUM PHOSPHATE PHOSPORIC ACID AND POTASSIUM HYDROXIDE CAPACITY OF 20,000 TONS / YEAR

By

ANDIKA WAHYU PURNAMA

Factory which is made by raw material Phosporic Acid and Potassium Hydroxide, will be planted on Gresik, East Java. The factory was established by considering the availability of raw materials, marketing area, transportation facilities, readily available labor and environmental conditions.

The factory is planned to produce Monobasic Potassium Phosphate of 20,000 tons / year, with operating time of 24 hours / day, 330 days / year. The raw materials used are much Phosporic Acid 2,160.727 kg/jam and Potassium Hydroxide as much as 2,627.519 kg/hr.

Provision of utility plant needs Monobasic Potassium Phosphate the provision of water, provision of steam, electricity supply, fuel requirements, and procurement of air instrumentation.

The form is a Limited Liability company (PT) using a line and staff organizational structure and employs as many as 167 people.

From the economic analysis is obtained:

- Fixed Capital Investment (FCI) = Rp 193,016,806,885.405
- Working Capital Investment (WCI) = Rp 34,061,789,450.366
- Total Capital Investment (TCI) = Rp 227,078,596,335.770
- Break Even Point (BEP) = 45.838 %
- Shut Down Point (SDP) = 30.011 %
- Pay Out Time before taxes (POT)_b = 1.835 tahun
- Pay Out Time after taxes (POT)_a = 2.193 tahun
- Return on Investment before taxes (ROI)_b = 37.815 %
- Return on Investment after taxes (ROI)_a = 30.252 %
- Discounted cash flow (DCF) = 33.779 %

Considering the above explanation, it is proper plant establishment Monobasic Potassium Phosphate was studied further, because it is a profitable factory and have a good future.