ABSTRAK

PRARANCANGAN PABRIK *POTASSIUM PERCHLORATE* DARI *POTASSIUM CHLORIDE* DAN AIR DENGAN KAPASITAS 30.000 TON/TAHUN *ROTARY DRYER* (RD-301)

Oleh

RENDRI ARDINATA

Pabrik *Potassium Perchlorate* menggunakan *potassium chloride* dan air sebagai bahan bakunya, pabrik ini akan didirikan di daerah perindustrian Bungah Dukuh, Gresik, Jawa Timur. Pabrik ini berdiri dengan mempertimbangkan ketersediaan bahan baku, sarana transportasi yang memadai, tenaga kerja yang mudah didapatkan dan kondisi linkungan. Pabrik direncanakan memproduksi *potassium perchlorate* sebanyak 30.000 ton/tahun, dengan waktu operasi 24 jam/hari, 330 hari/tahun. Bahan baku yang digunakan adalah kalium klorida sebanyak 2519,128 kg/jam. Penyediaan kebutuhan utilitas pabrik *potassium perchlorate* berupa: pengadaan air, pengadaan steam, pengadaan listrik, kebutuhan bahan bakar, dan pengendalian udara kering.

Bentuk perusahaan adalah Perseroan Terbatas (PT) mengunakan struktur organisasi *line* dan *staff* dengan jumlah karyawan sebanyak 198 orang yang dikepalai oleh Direktur Utama yang dibantu oleh Direktur Produksi juga Direktur Keuangan.

Dari analisa ekonomi diperoleh:

Fixed Capital Investment	(FCI)	= Rp 157.566.593.002
Working Capital Investment	(WCI)	= Rp 27.805.869.353
Total Capital Investment	(TCI)	= Rp 185.372.462.355
Break Even Point	(BEP)	= 51,18%
Shut Down Point	(SDP)	= 22,43%
Pay Out Time before taxes	$(POT)_b$	= 3,0822 tahun
Pay Out Time after taxes	$(POT)_a$	= 3,125 tahun
Return on Investement before taxes	$(ROI)_b$	= 68,7191%
Return on Investement after taxes	$(ROI)_a$	= 54,9753%
Discounted cash flow	(DCF)	= 11,0000%

Dengan mempertimbangkan ringkasan di atas, sudah selayaknya untuk dikaji lebih lanjut mengenai pendirian pabrik *potassium perchlorate* , hal ini karena pabrik memiliki tingkat keuntungan yang baik dan memiliki prospek yang menjanjikan.

ABSTRACT

PREDESIGN OF POTASSIUM PERCHLORATE FROM POTASSIUM CHLORIDE AND WATER WITH CAPACITY OF 30.000 TONS/YEAR

ROTARY DRYER (RD-301)

By

RENDRI ARDINATA

Potassium Perchlorate Plant uses potassium cloride and water as its raw material, this plant will be build in industrial region of Bungah dukuh in Gresik, East Java. Plant will be established by considering the availability of raw materials, transportation facilities, readily available labours and environmental conditions. Plant's production capacity which planned was 30.000 tons/year, with operating time of 24 hours/day and 330 working days in a year. The raw material which used is potassium chloride with amount of 2519,128 kg/hour. The supplies of potassium perchlorate plant's utility such are: water treatment system, steam supply system, electricity supply system, power generation system, fuel supply system and air supply system.

The type of business enity is Limited Liability Company (PT) which using Line and staff as organization system with 198 workers headed by a Chief Executive Officer who assisted by the Director of Production also Director of Finance.

From the economic analysis, which can be obtained are:

Fixed Capital Investment	(FCI)	= Rp 155.846.501.249
Working Capital Investment	(WCI)	= Rp 27.503.232,750
Total Capital Investment	(TCI)	= Rp 185.372.462.355
Break Even Point	(BEP)	= 51,18%
Shut Down Point	(SDP)	= 22,43%
Pay Out Time before taxes	$(POT)_b$	= 3,0822 tahun
Pay Out Time after taxes	$(POT)_a$	= 3,125 tahun
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Discounted cash flow	(DCF)	= 11,0000%

By considering the summaries above, it is better to take the proper study from establishment of potassium perchlorate plant, it is because the plant has good profitability and good propects.