

## ABSTRAK

### PRARANCANGAN PABRIK METHANOL DARI GAS ALAM DAN STEAM DENGAN KAPASITAS 300.000 TON/TAHUN

(Prancangan Reaktor Methanol (RE-202))

Oleh

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Pabrik Methanol berbahan baku Gas Alam dan *Steam*, akan didirikan di Kabupaten Banyuasin, Sumatera Selatan. Pabrik ini berdiri dengan mempertimbangkan ketersediaan bahan baku, daerah pemasaran, sarana transportasi yang memadai, tenaga kerja yang mudah didapatkan dan kondisi lingkungan.

Pabrik direncanakan memproduksi Methanol sebanyak 300.000 ton/tahun, dengan waktu operasi 24 jam/hari, 330 hari/tahun. Bahan baku yang digunakan adalah Gas Alam 33.828,874 kg/jam dan Steam sebanyak 75.428,149 kg/jam.

Jumlah karyawan sebanyak 134 orang dengan bentuk perusahaan adalah Perseroan Terbatas (PT) yang dipimpin oleh seorang direktur. Sistem manajemen perusahaan menggunakan struktur organisasi *line* dan *staff*.

Dari analisis ekonomi diperoleh:

<i>Fixed Capital Investment</i> (FCI)	= Rp. 641.318.313.257,-
<i>Working Capital Investment</i> (WCI)	= Rp. 113.173.819.986,-
<i>Total Capital Investment</i> (TCI)	= Rp. 754.492.133.243,-
<i>Break Even Point</i> (BEP)	= 57,39 %
<i>Shut Down Point</i> (SDP)	= 46,08 %
<i>Pay Out Time after Taxes</i> (POT) <sub>a</sub>	= 1,98 tahun
<i>Return on Investment after Taxes</i> (ROI) <sub>a</sub>	= 34,33 %
<i>Discounted Cash Flow</i> (DCF)	= 18,88 %

Mempertimbangkan paparan di atas, sudah selayaknya pendirian pabrik Methanol ini dikaji lebih lanjut, karena merupakan pabrik yang menguntungkan dan mempunyai masa depan yang baik.

**ABSTRACT****PREDESIGN OF METHANOL PLANT FROM NATURAL GASE AND  
STEAM WITH CAPACITY 300.000 TONS/YEAR****(Methanol Reactor Design (RE-202))****By****Neo Kurniawan**

Factory which is made by raw material Natural Gas and Steam, will be erected on Ogan Komering Ilir, South Sumatera. 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 Methanol of 300,000 tons / year, with operating time of 24 hours / day, 330 days / year. The raw materials used are much Natural Gas 33.828,874 kg/jam and Steam as much as 75.428,149 kg/hr.

Quantity of labor is around 134 people. The plant is managed as a Limited Liability Company (PT), which is headed by a Director. The company is organized in the form of line and staff structure.

From analysis of the plant economy is obtained:

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By considering above the summary, it is suitable study further the Methanol plant since plant is profitable and has good prospects.