

## ABSTRAK

### PRARANCANGAN PABRIK *POLYPROPYLENE* DARI *PROPYLENE* DENGAN KAPASITAS 135.000 TON/TAHUN (PERANCANGAN Rotary Drayer (RD-301))

Oleh

Cathoche Uniqua S

*Polypropylene* merupakan salah satu produk industri kimia yang dimanfaatkan dalam industri *automotive appliance*, barang plastik rumah tangga, film, pembungkus kabel, pipa, *coating*, *fiber* dan *fillament*, kontainer dan lain-lain termasuk mainan anak-anak dan peralatan kesehatan.

Pembuatan *Polypropylene* dalam skala besar, dilakukan pada perancangan pabrik *Polypropylene* dengan kapasitas 135.000 Ton/Tahun dengan bahan baku *Propylene* dan hidrogen diperoleh dari PT. Chandra Asri Petrochemical Center. Lokasi pabrik direncanakan didirikan di Krakatau Industrial Estate Cilegon (PT. KIEC), Provinsi Banten. Bentuk perusahaan adalah Perseroan Terbatas (PT) yang dipimpin oleh seorang Direktur Utama dibantu oleh Direktur Produksi dan Direktur Keuangan menggunakan struktur organisasi *line* dan *staff* dengan jumlah karyawan sebanyak 144 orang.

Analisa kelayakan Perancangan Pabrik *Polypropylene* sebagai berikut :

|  |                        |
|--|------------------------|
| <i>Fixed Capital Investment (FCI)</i>                      | = Rp 763.844.415.202,- |
| <i>Working Capital Investment (WCI)</i>                    | = Rp 143.220.827.850,- |
| <i>Total Capital Investment (TCI)</i>                      | = Rp 954.805.519.003,- |
| <i>Break Even Point (BEP)</i>                              | = 43,49 %              |
| <i>Pay Out Time after Taxes (POT)<sup>a</sup></i>          | = 2,89 years           |
| <i>Return on Investment before Taxes (ROI)<sup>b</sup></i> | = 47,12 %              |
| <i>Return on Investment after Taxes (ROI)<sup>a</sup></i>  | = 26,16 %              |
| <i>Discounted Cash Flow (DCF)</i>                          | = 29,93 %              |
| <i>Shut Down Point (SDP)</i>                               | = 22,33 %              |

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

## ABSTRACT

### MANUFACTURE OF POLYPROPYLENE FROM PROPYLENE CAPACITY 135.000 TON / YEAR (DESIGN OF Rotary Drayer (RD-301))

By

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Polypropylene is one of chemical industry products which are used in automotive appliance industry, household plastic items, film, cable wrapping, pipe, coating, fiber and fillament, container, etc. including toys and medical tools.

Polypropylene is made from propylene and hydrogen are supplied from PT. Chandra Asri Petrochemical Center. A Business entity of this company is a joint-stock company (Perusahaan Terbatas). The company is managed by managing director and assisted by production and financial director. The structure of this organization is line and staff with 144 labors.

An economic analysis of preliminary plant design of polypropylene are:

|   |                        |
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Consider the summary above, it is proper establishment of Polypropylene's Plant is studied further, because the plant is profitable and has good prospects.