

BAB XII

DISKUSI DAN KESIMPULAN

XII. Diskusi dan Kesimpulan

XII.1. Diskusi

Pabrik Metil Akrilat dari metanol dan asam akrilat didirikan atas dasar kebutuhan pasar dalam negeri yang terus meningkat setiap tahunnya. Kebutuhan metil akrilat dalam negeri selama ini dipenuhi melalui kegiatan impor karena belum terdapat industri penghasil metil akrilat di Indonesia. Berdirinya pabrik metil akrilat dari metanol dan asam akrilat di Indonesia diharapkan dapat memenuhi kebutuhan metil akrilat dalam negeri, menghemat devisa negara dalam mengurangi impor metil akrilat, dan membuka lapangan kerja baru bagi masyarakat, serta mendorong berdirinya pabrik baru yang menggunakan metil akrilat sebagai bahan baku.

Kelayakan pabrik metil akrilat dari metanol dan asam akrilat dapat ditinjau dari beberapa faktor berikut ini.

- **Segi Bahan Baku**

Bahan baku yang digunakan dalam pembuatan Metil Akrilat adalah metanol dan asam akrilat dengan katalis asam sulfat. Ketiga bahan baku utama tersebut seluruhnya telah diproduksi di Indonesia sehingga memudahkan dalam transportasi bahan baku serta dapat mendukung perekonomian negara. Metanol dapat dipenuhi dari PT. Kaltim Methanol Industri berlokasi di kota Bontang, Kalimantan Timur. Asam akrilat dapat dipenuhi dari PT Nippon Shokubai Indonesia (NSI) yang berlokasi di Cilegon, Banten. Asam sulfat dipenuhi dari PT. Indonesian Acids Industry yang berlokasi di Bekasi, DKI Jakarta.

- **Segi Proses dan Produk yang dihasilkan**

Metil akrilat yang dihasilkan berasal dari proses esterifikasi metanol dan asam akrilat dengan katalis asam sulfat yang kemudian akan dimurnikan dengan menggunakan proses distilasi secara 2 tahap. Tahap 1 untuk merecycle metanol dan tahap 2 untuk memurnikan produk yaitu metil akrilat dengan kemurnian 99,5%.

Dari segi produk utama yang dihasilkan, Metil Akrilat dengan kemurnian 99,5% dapat digunakan diberbagai industri polimer ataupun sebagai bahan baku untuk aplikasi dari serat akrilik, resin, *molding*, perekat, pelapis/*coating*, aditif plastik, dan emulsi. Sedangkan untuk produk samping berupa kalsium sulfat digunakan diberbagai industri konstruksi.

- Segi Lokasi

Pabrik Metil Akrilat ini didirikan di Kawasan Industri Krakatau Cilegon, Banten, dengan pertimbangan berbagai faktor seperti ketersediaan bahan baku, daerah pemasaran, ketersediaan energi dan suplai air, iklim, fasilitas transportasi, pembuangan limbah, ketersediaan tenaga kerja, pajak dan peraturan, karakteristik lokasi, faktor komunitas, letak geografis, dan pengembangan area pabrik yang telah dijabarkan pada Bab VI.

- Segi Ekonomi

Kelayakan pabrik Metil Akrilat dari segi ekonomi ditinjau dari beberapa aspek yang didasarkan dari hasil analisa ekonomi dengan metode *discounted cash flow*. Hasil analisa ekonomi tersebut menunjukkan:

- Laju Pengembalian Modal Investasi (ROI) sesudah pajak memiliki nilai sebesar 35,72% yang mana lebih besar dari MARR yaitu 16-24%
- Laju Pengembalian Modal Ekuitas (ROE) sesudah pajak memiliki nilai sebesar 57,44% yang mana lebih besar dari MARR yaitu 16-24%
- Waktu Pengembalian Modal (POT) sesudah pajak diperkirakan dapat terjadi selama 4 tahun 11 bulan 3 hari yang mana lebih kecil dari umur pabrik yaitu 10 tahun
- Titik Impas (BEP) memiliki nilai sebesar 40,63% yang mana masuk pada rentang BEP ideal yaitu 40%-60%

XII.2. Kesimpulan

Nama Perusahaan : MA Jaya Sentosa

Bentuk Perusahaan : Perseroan Terbatas (PT)

Produk Utama : Metil Akrilat

Kapasitas : 33.000 ton/tahun

Bahan Baku Utama : Metanol dan Asam Akrilat

Tipe Operasi : *kontinyu*

Utilitas :

- Air : Air Sanitasi = 5,8520 m³/hari
Air Pendingin = 7.892,2547 m³/hari
Air Umpan Boiler = 7917,2935 m³/hari
- *Saturated steam* : Suhu 115°C = 331.044,9912 kg/hari
- Listrik : 132,3156 kW
- Bahan Bakar : IDO = 20,5065 m³/hari

Jumlah Tenaga Kerja : 116 orang

Lokasi Pabrik : Kawasan Industri Krakatau Cilegon, Banten

Dari analisa ekonomi yang telah dilakukan, didapatkan:

- *Fixed Capital Investment* (FCI) = Rp365.682.204.473
- *Working Capital Investment* (WCI) = Rp54.482.270.815
- *Total Production Cost* (TPC) = Rp909.791.321.518
- Penjualan per tahun = Rp1.156.316.604.327

Analisis ekonomi dengan metode *discounted cash flow*:

- ROI setelah pajak = 35,72%
- ROI sebelum pajak = 45,6%
- ROE setelah pajak = 57,44%
- ROE sebelum pajak = 75,73%
- POT setelah pajak = 4 tahun 11 bulan 3 hari
- POT sebelum pajak = 3 tahun 2 bulan 24 hari
- BEP = 40,63%

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