



DAFTAR ISI

HALAMAN DEPAN	i
LEMBAR PENGESAHAN	ii
PERNYATAAN PENYUSUN	iii
PRAKATA	iv
DAFTAR ISI	v
EXECUTIVE SUMMARY	viii
ABSTRACT	xiii
INTISARI	xiv
BAB I	1
BAB II	8
BAB III	14
3.1. Gas Alam	14
3.2. Oksigen	14
3.3. Metanol	15
3.4. Metil Nitril	16
3.5. Steam	16
3.6. MDEA	16
3.7. Dimetil Oksalat	17
3.8. Monoetilen Glikol	17
3.9. CO (Karbonmonoksida)	18
BAB IV	19
4.1. Diagram Alir Kualitatif	20
4.2. Diagram Alir Kuantitatif	21
4.3. Process Engineering Flow Diagram (PEFD)	22
BAB V	25
5.1. Neraca Massa Site Plant 1	27
5.2. Neraca Massa Site Plant 2	34
5.3. Neraca Massa Site Plant 3	39
5.4. Neraca Massa Site Plant 4	46
BAB VI	47
6.1. Neraca Panas Site Plant 1	48





6.2. Neraca Panas Site Plant 2	58
6.3. Neraca Panas Site Plant 3	60
6.4. Neraca Panas Site Plant 4	62
BAB VII	63
7.1. Spesifikasi Alat Site Plant 1	63
7.2. Spesifikasi Alat Site Plant 2	79
7.3. Spesifikasi Alat Site Plant 3	88
7.4. Spesifikasi Alat Site Plant 4	99
BAB VIII	100
8.1. Unit Penyedia dan Pengolahan Air	100
8.2. Unit Pembangkit Steam	108
8.3. Unit Penyedia Bahan Bakar	111
8.4. Unit Penyedia Udara Instrumen	116
8.5. Unit Pembangkit dan Pendistribusian Listrik	118
8.6. Unit Refrigerasi	121
8.7. Unit Pengolahan Limbah	121
8.8. Unit Cooling Tower	125
BAB IX	136
BAB X	143
BAB XI	185
11.1. Diagram Organisasi	186
11.2. Kualifikasi Karyawan dan Perincian Jumlah Pegawai	187
11.2.1. Direktur Utama / President	187
11.2.2. Senior Vice President of Production	187
11.2.3. Senior Vice President of Marketing	191
11.2.4. Senior Vice President of General Affairs	194
11.2.5. Senior Vice President of Asset Management	196
11.2.6. Senior Vice President of Human Resources and HSE	199
11.3. Perhitungan Kebutuhan Jumlah Operator	202
11.4. Penggolongan Gaji Karyawan	203
11.5. Penggiliran Jam Kerja Karyawan	205
BAB XII	207
12.1. Modal Tetap (Fixed Capital Investment)	210
12.1.1 Perhitungan Harga Alat	210
12.1.2 Perhitungan Gaji Pekerja	215



12.2.	Biaya Produksi (Manufacturing Cost).....	218
12.2.1	Perhitungan Raw Material.....	218
12.2.2	Harga Jual Produk	221
12.2.3	Perhitungan Penggajian Karyawan	222
12.2.4	Biaya Produksi Langsung (Direct Manufacturing Cost).....	223
12.2.5.	Biaya Produksi Tidak Langsung (Indirect Manufacturing Cost).....	223
12.2.6.	Biaya Produksi Tetap (Fixed Manufacturing Cost)	223
12.3.	Modal Kerja (Working Capital).....	224
12.4.	Pengeluaran Umum (General Expense).....	224
12.5.	Analisis Keuntungan.....	226
12.6.	Analisis Kelayakan	227
12.6.1.	Percent Return of Investment (ROI)	227
12.6.2.	Pay Out Time (POT)	228
12.6.3.	Break Even Point (BEP).....	229
12.6.4.	Shut Down Point (SDP)	230
12.6.5.	Faktor LANG	230
12.6.6.	Discounted Cash Flow Rate of Return (DCFRR)	231
BAB XIII	234
DAFTAR PUSTAKA	235
LAMPIRAN	238

