

DAFTAR ISI

| | |
|--|------|
| HALAMAN JUDUL..... | i |
| HALAMAN PENGESAHAN..... | ii |
| HALAMAN PERNYATAAN..... | iii |
| KATA PENGANTAR..... | iv |
| DAFTAR ISI | vii |
| DAFTAR TABEL..... | x |
| DAFTAR GAMBAR | xii |
| DAFTAR LAMPIRAN | xiii |
| INTISARI..... | xiv |
| ABSTRACT..... | xv |
| BAB I PENDAHULUAN | 1 |
| 1.1 Latar Belakang | 1 |
| 1.2 Rumusan Masalah | 6 |
| 1.3 Batasan Masalah..... | 7 |
| 1.4 Tujuan Penelitian..... | 7 |
| 1.5 Manfaat Penelitian..... | 7 |
| BAB II TINJAUAN PUSTAKA | 8 |
| 2.1 Garam | 8 |
| 2.1.1 Pengertian..... | 8 |
| 2.1.2 Sumber Garam | 8 |
| 2.1.3 Faktor-Faktor yang Mempengaruhi Produksi Garam | 9 |
| 2.1.4 Kualifikasi Garam | 11 |
| 2.1.5 Jenis Garam..... | 12 |

| | | |
|--------------------------------|---|----|
| 2.2 | Garam Konsumsi Beryodium | 12 |
| 2.3 | Geomembran | 14 |
| 2.4 | ISO 14000..... | 15 |
| 2.5 | Life Cycle Assessment (LCA)..... | 17 |
| 2.6 | OpenLCA | 20 |
| 2.7 | Energi | 21 |
| 2.7.1 | Manusia | 21 |
| 2.7.2 | Energi Matahari..... | 22 |
| 2.7.3 | Energi Listrik | 22 |
| 2.7.4 | Energi Bahan Bakar | 23 |
| 2.8 | Neraca Massa | 23 |
| 2.9 | Neraca Energi | 25 |
| 2.10 | Emisi dan Dampak Lingkungan | 25 |
| BAB III METODE PENELITIAN..... | | 30 |
| 3.1 | Objek Penelitian | 30 |
| 3.2 | Populasi dan Sampel Penelitian | 30 |
| 3.3 | Alur dan Tahapan Penelitian..... | 31 |
| 3.3.1 | Alur Penelitian | 31 |
| 3.3.2 | Tahapan Penelitian | 33 |
| 3.4 | Lingkup (<i>Scoping</i>) Penelitian | 35 |
| 3.5 | Pengumpulan Data | 36 |
| 3.5.1 | Data Primer | 36 |
| 3.5.2 | Data Sekunder | 36 |
| 3.6 | Metode Pengumpulan Data | 37 |
| 3.6.1 | Data Primer | 37 |

| | | |
|-----------------------------------|--|----|
| 3.6.2 | Data Sekunder | 38 |
| 3.7 | Pengolahan Data..... | 38 |
| BAB IV HASIL DAN PEMBAHASAN | | 41 |
| 4.1 | Deskripsi Umum..... | 41 |
| 4.2 | Proses Pembuatan Garam | 42 |
| 4.2.1 | Garam Bahan Baku | 42 |
| 4.2.2 | Garam Konsumsi Beryodium..... | 47 |
| 4.3 | Neraca Massa, Neraca Energi, dan Peta Proses Operasi | 49 |
| 4.3.1 | Neraca Massa dan Neraca Energi | 49 |
| 4.3.2 | Peta Proses Operasi | 50 |
| 4.4 | Penerapan Life Cycle Assessment..... | 50 |
| 4.4.1 | Tujuan dan Ruang Lingkup..... | 51 |
| 4.4.2 | Inventarisasi Daur Hidup/ <i>Life Cycle Inventory</i> (LCI) | 52 |
| 4.4.3 | Analisis Dampak / <i>Life Cycle Impact Assessment</i> (LCIA) | 71 |
| 4.4.4 | Interpretasi..... | 85 |
| BAB V KESIMPULAN DAN SARAN..... | | 89 |
| 5.1 | Kesimpulan..... | 89 |
| 5.2 | Saran | 90 |
| DAFTAR PUSTAKA | | 91 |
| LAMPIRAN | | 97 |