

INDEX

<i>Chapter</i>	<i>Contents</i>	<i>Page No.</i>
1	INTRODUCTION	
	1.1 Introduction	1-1
	1.2 Project Justification	1-1
	1.3 Site & Surroundings	1-2
	1.4 Legal Aspects	1-3
	1.5 Environmental Clearance Requirement	1-3
	1.6 Methodology	1-6
	1.7 Purpose of EIA / EMP Report	1-6
	1.8 TORs issued by MoEF	1-6
2	THE PROJECT	
	2.1 Production Details	2-1
	2.2 Requirement & Source of Raw Materials	2-2
	2.3 Land Details	2-3
	2.4 Water Requirement & balance	2-4
	2.5 Power Requirement	2-5
	2.6 Boiler Details	2-5
	2.7 Steam Requirement	2-6
	2.8 Equipment used in Process	2-6
	2.9 Manufacturing Process Chemistry	2-7
	2.10 Manufacturing Process	2-8
	2.11 Data & Assumptions	2-11
	2.12 Performance Parameters	2-12
	2.13 Water Pollution & Control Measures	2-12
	2.14 Air Pollution & Control Measures	2-14
	2.15 Air Pollution & Control Measures	2-14
	2.16 Solid Waste	2-15
	2.17 Estimated Cost Break Up of the Project	2-15
3	BASELINE ENVIRONMENTAL CONDITION	
	3.1 General	3-1
	3.2 Land Environment	3-2
	3.3 Land Use Pattern	3-2
	3.4 Water Environment	3-8
	3.5 Biological Environment	3-15
	3.6 Climatology & Meteorology	3-16
	3.7 Ambient Air Quality	3-22
	3.8 Noise	3-27
	3.9 Socio Economic Profile	3-31

<i>Chapter</i>	<i>Contents</i>	<i>Page No.</i>
4	SOURCES OF POLLUTION & CONTROL MEASURES	
4.1	<i>Introduction</i>	4-1
4.2	<i>Impact on Land Use Pattern</i>	4-3
4.3	<i>Impact on Soil</i>	4-4
4.4	<i>Solid Waste</i>	4-5
4.5	<i>Impact on Surface Water Hydrology</i>	4-6
4.6	<i>Impact on Ground Water Hydrology</i>	4-6
4.7	<i>Impact on Water Use</i>	4-6
4.8	<i>Impact on Water Quality</i>	4-7
4.9	<i>Impact on Air Environment</i>	4-8
4.10	<i>Results & Discussions</i>	4-13
4.11	<i>Fugitive Emissions</i>	4-17
4.12	<i>Noise Environment</i>	4-17
4.13	<i>Impact on Terrestrial Ecology</i>	4-18
4.14	<i>Impact on Aquatic Ecology</i>	4-19
4.15	<i>Impact on Demography & Socioeconomic</i>	4-20
5	ENVIRONMENTAL MANAGEMENT PLAN	
5.1	<i>Introduction</i>	5-1
5.2	<i>Post Project Operations</i>	5-1
5.3	<i>Air Environment</i>	5-1
5.4	<i>Water Environment</i>	5-2
5.5	<i>Land Environment</i>	5-2
5.6	<i>Noise Environment</i>	5-2
5.7	<i>Green Belt Development</i>	5-3
5.8	<i>Eco System</i>	5-3
5.9	<i>Plantation Techniques</i>	5-4
5.10	<i>Nursery Development</i>	5-4
5.11	<i>Aftercare & Monitoirng</i>	5-5
5.12	<i>Location & Landscape</i>	5-5
5.13	<i>Baseline Data & Potential Impacts of the Study Area</i>	5-5
5.14	<i>Recommendations for Green Belt Development</i>	5-6
5.15	<i>Socio Economic Welfare Activities</i>	5-8
5.16	<i>Rain Water Harvesting Plan</i>	5-8
5.17	<i>Occupational Safety & Health</i>	5-9
5.18	<i>Post Project Environmental Monitoring Programme</i>	5-10
5.19	<i>Environmental Budget</i>	5-10

LIST OF TABLES

Table No.	Contents	Page No.
1.1	Environmental Setting (Within 10 km. radius)	1-2
3.1	Land Use Pattern of the study area	3-3
3.2	Soil sampling locations	3-5
3.3	Soil Quality Results	3-7
3.4	Location of Water Sampling Stations	3-9
3.5	Ground Water Quality Results	3-12
3.6	Surface Water Quality Results	3-13
3.7	Instruments, Parameters and Frequency of Meteorological Monitoring at Site	3-18
3.8	Recorded Average Meteorological Data at Site	3-19
3.9	Ambient Air Quality Monitoring Stations	3-22
3.10	Ambient Air Quality Monitoring Methodology	3-24
3.11	Summary of Ambient Air Quality Monitoring Results	3-26
3.12	Location of Noise Monitoring Stations	3-27
3.13	Noise Level Monitoring Data	3-30
4.1	Pasquill Gifford Stability Classes	4-10
4.2	Stack & Emission Details	4-13
4.3	Maximum 24 Hourly Short Term Incremental Concentration	4-14
4.4	Predicted Maximum Cumulative Short Term Ground Level Concentration	4-16
5.1	Environmental Monitoring Schedule	5.10
5.2	Cost of Environmental Protection Measures	5-10

LIST OF FIGURES

<i>Fig. No.</i>	<i>Contents</i>	<i>Page No.</i>
1.1	Location Map	1-9
2.1	Manufacturing Process Flow Diagram	2-17
3.1	Land Use Pattern of Study Area	3-3
3.2	Location of Soil sampling stations	3-6
3.3	Location of Water sampling stations	3-10
3.4	Periodicl Windrose Diagram	3-20
3.5	Monthly Windrose Diagram	3-21
3.6	Location of Ambient Air Quality Monitoring Stations	3-23
3.7	Location of Noise Monitoring Stations	3-29
4.1(a)	Isopleth for SPM Concentration	4-15
4.1(b)	Isopleth for SO ₂ Concentration	4-15

ANNEXURES

- I. Executive Summary
- II. Ambient Air Quality Monitoring Data
- III. National Ambient Air Quality Standards