MAURITIUS MOLASSES COMPANY LTD

CONVERSION OF MOLASSES STORAGE TANKS
INTO PETROLEUM CLASS B PRODUCTS
STORAGE TANKS

ENVIRONMENTAL IMPACT ASSESSMENT

GIBB (Mauritius) LTD
GIBB House
71, Sayed Hossen Road
Solferino

March 2014
## EXECUTIVE SUMMARY

### MAURITIUS MOLASSES COMPANY LTD

#### 1 INTRODUCTION

1.1 General

1.2 The Terms of Reference

1.3 Liaison with Authorities

1.4 Structure of the EIA Report

#### 2 PROJECT PARTICULARS

2.1 The Promoter

2.2 The Petroleum Industry in Mauritius

2.3 Justification for the Project

2.3.1 Consumption

2.3.2 Existing Oil Companies

2.3.3 Rising Demand

2.3.4 Availability / Security of Stock

2.4 Scope and Methodology of the Environmental Impact Assessment (EIA)

#### 3 ENVIRONMENTAL FRAMEWORK IN MAURITIUS

3.1 Introduction

3.2 The National Environmental Policy

3.3 National Physical Development Plan, 1993/4

3.4 Environmental Institutional Structure
3.5 Legislative Provisions for Environmental Protection 7
3.5.1 The Environmental Protection Act 2002 7
3.5.2 Ports Act, 1998 (amendment 2003) 8
3.5.3 Maritime Zones Act, 2005 8
3.5.4 Fisheries and Marine Resources Act, 1998 8
3.5.5 Occupational Safety, Health Act, 2005 (OSHA) 9
3.5.6 Inflammable Liquids and Substances Regulations, 1953 9
3.5.7 Central Water Authority Act, 1991 9
3.5.8 Waste Water Authority Act, 1991 9
   (i) no person shall: 9

3.6 International Treaties and Agreements 9
3.6.1 Convention for the International Trade in Endangered Species, 1973 (CITIES) 9
3.6.2 Bio-diversity Convention, 1991 10
3.6.3 Convention of the Conservation of Migratory Species of Wild Animals (Bonn Convention), 1979 10

3.7 The Requirement for Environmental Impact Assessment (EIA) 10

4 PROJECT DESCRIPTION AND DESIGN CRITERIA 1
4.1 Proposed Tank Conversion at Quay D, Port-Louis Harbour 1
4.2 Storage Tanks 1
4.2.1 Safety Distances between Tanks 1
4.2.2 Minimum Safety Distances 1
4.2.3 Distance from Property Lines and Public Ways 2
4.2.4 Shell to Shell Spacing 3
4.2.5 Spacing from Operating Facilities 3
4.3 Dyke Walls 3
4.3.1 Dyke Enclosure Capacity 3
4.3.2 Intermediate or Drainage Channels within Dyke Wall 3
4.4 Pavements 4
4.4.1 Tank Farm Pavement 4
4.5 Terminal Entrance 4
4.6 Plant Lighting 4
4.6.1 Electrical Power Supply 4
4.6.2 General Lighting 4
## 4.7 Product Piping Overlay

4.8 Water, Air and Fire Appliances

4.8.1 Water Supply

4.8.2 Water Pressure

4.8.3 Water Reticulation

4.8.4 Fire Appliances

4.9 Sewer System and Effluent Treatment

4.9.1 Sewer System

4.9.2 Sanitary Waste System

4.9.3 Storm Water and Water from Contaminated Areas

4.9.4 Effluent Treatment Facilities

4.9.5 Design of Sewer System

### 5 BASELINE ENVIRONMENTAL CONDITIONS

5.1 Introduction

5.2 Site and Project Area

5.3 Climatic Conditions

5.3.1 Temperature

5.3.2 Rainfall

5.3.3 Wind Regime

5.4 Air Quality

5.4.1 Air Pollution in Port Louis

5.4.2 Existing Air Quality Data

5.5 Noise

5.6 Aquatic Environment and Water Quality

5.6.1 Freshwater Environment

5.6.2 Marine Environment

5.7 Traffic and Infrastructure

5.7.1 Traffic

5.7.2 Infrastructure

5.8 Land

5.8.1 Topography

5.8.2 Geology

5.9 Terrestrial Ecology
5.10 Cultural and Historical Heritage 9
5.11 Landscape and Visual Environment 9
5.12 Socio-Economic Conditions 10

6 IDENTIFICATION AND PREDICTION OF IMPACTS 1
6.1 General 1
6.2 Scoping 1
6.3 Air Quality 1
6.3.1 Risk of Fire 2
6.4 Water Quality 2
6.4.1 Construction Stage 2
6.4.2 Operation Stage 2
6.5 Soil Contamination 2
6.6 Socio-Economic Effects 3
6.7 Effects on Traffic 3
6.8 Effects Related to Solid Waste Disposal 3
6.9 Effects on Terrestrial Ecology 3
6.10 Effects on Cultural and Historical Heritage 4
6.11 Noise 4
6.12 Effects on Landscape and Visual Environment 4
6.13 Accidents/Occupational Health and Safety 4
6.14 Summary Table of Impacts Without Mitigation Measures 5

7 MITIGATION MEASURES 1
7.1 Mitigation during Construction 1
7.2 Mitigation for Impacts over the Life of the Project 2
7.2.1 Air quality 2
7.2.3 Noise 2
7.3 Water Quality and Marine Environment 3
7.4 Soil Contamination 3
7.5 Solid Waste Disposal 3
7.6 Accident Prevention / Occupational Health and Safety 4
7.7 Emergency Response 4
7.7.1 Spill/Fire Contingency Plans 4

7.8 Monitoring and Maintenance 5
7.8.1 Construction Phase 5
7.8.2 Operation Phase 5

7.9 Summary of Impacts with Mitigation Measures 6

8 ENVIRONMENTAL MONITORING PLAN 7

8.1 SUMMARY 7

8.2 INTRODUCTION 8
8.2.1 General 8
8.2.2 TECHNICAL STAFF 8
8.2.3 METHODOLOGY OF THE ENVIRONMENTAL MONITORING PLAN (EMP) 8

8.3 MONITORING 11
8.3.3 Inspections 11
8.3.4 Audit 11

9 CONCLUSION 13

REFERENCES

APPENDICES

Appendix A Drawings- Location, tank farm, OWS
Appendix B Photographs of Site and Environ
Appendix C Ambient Air Quality and Emission Standards for Mauritius
Appendix D Noise Standards for Mauritius
Appendix E Lease Agreement between Mauritius Ports Authority and Mauritius Molasses Company Limited
Appendix F MMCO Oil Spill Contingency Plan
Appendix G Certificate of Incorporation