TABLE OF CONTENTS

Title page i
Table of contents ii
List of tables vi
List of figures vi
Non- technical summary vii

CHAPTER 1: INTRODUCTION
1.1 Background of Project 1
1.2 Brief on Project Promoter 3
  1.2.1 Project Team 4
1.3 Project Justification 5
1.4 Environment Impact Assessment 5
  1.4.1 Structure of this EIA report 6

CHAPTER 2: SITE DESCRIPTION
2.1 Project Site Location 7
2.2 Legal, Regulatory and Administrative Framework 7
  2.2.1 Land Ownership 7
  2.2.2 Legal Requirements, Planning & Policies 7
    2.2.2.1 National Development Strategy 8
    2.2.2.2 Environmental Protection Act 9
    2.2.2.3 Mauritius Fire Code 9
  2.2.3 Zoning 10
2.3 Site Characteristics 11
  2.3.1 Geological and Topographical characteristics 11
    2.3.1.1 Site hydrology and site hydrogeology 13
  2.3.2 Climatic conditions 14
  2.3.3 Ecological sensitivity 15
    2.3.3.1 Fauna and Flora 15
    2.3.3.2 Water bodies and watercourses 15
  2.3.4 Existing land uses 15
    2.3.4.1 Local Environment 15
    2.3.4.2 Surrounding Environment 19

CHAPTER 3: PROJECT DESCRIPTION
3.1 Project Description 23
  3.1.1 Organisation structure 24
3.2 Characteristics of materials 25
  3.2.1 Rocksand 25
  3.2.2 Cement 25
  3.2.3 Additives 25
3.3 Process description 26
3.3.1 Material handling and storage of raw materials 28
   3.3.1.1 Handling of rocksand 28
   3.3.1.2 Storage of cement in silo 28
   3.3.1.3 Diesel storage 28
3.4 3.3.2 Raw material conditioning and pollution control 28
   3.3.2.1 Rock sand drying 28
   3.3.2.2 Sieving and milling 30
   3.3.2.3 Pollution control 30
3.3.3 Mixing and weighing 31
3.3.4 Packaging 32
3.4 Infrastructures 33
   3.4.1 Silo 33
   3.4.2 Setbacks, parkings and reversing area 34
   3.4.3 Access stairways and walkaways 35
   3.4.4 Conveyor system 35
   3.4.5 Control and Instrumentation 36
   3.4.6 Site office and Amenities 36
   3.4.7 Security 36
3.5 Water storage facility 36
3.6 Wastewater disposal 36
3.7 Power supply 37
3.8 Storm water drain 37
3.9 Solid waste disposal 37
3.10 Workforce 37
3.11 Proposed schedule for project implementation 38

CHAPTER 4: METHOD OF ASSESSMENT OF BASELINE ENVIRONMENT
4.1 Introduction 39
4.2 Methodology of baseline data collection 39
   4.2.1 Noise assessment survey 39
   4.2.2 Ambient air monitoring 41
4.3 Consultation with stakeholders 42
4.4 Identification of further studies 44

CHAPTER 5: ASSESSMENT OF ENVIRONMENTAL IMPACTS & THEIR MITIGATION
5.1 Introduction 45
5.2 Predicted environmental impacts and mitigation during preconstruction and construction 45
   5.2.1 Impacts on air quality 45
   5.2.2 Impacts from spills 46
   5.2.3 Impacts from land 47
      5.2.3.1 Construction waste 47
      5.2.3.2 Domestic solid waste 47
5.2.3.3 Surface run offs 48
5.2.4 Impacts on Noise level 48
5.2.5 Generation of wastewater 50
5.2.6 Impact of Aesthetics 50
5.2.7 Impact on Fauna & Flora 51
5.2.8 Residual impacts 51
5.3 Predicted environmental impact during operation 51
5.3.1 Emission of dust during operational phase 51
5.3.2 Impacts on noise level 54
5.3.3 Impacts on traffic 54
5.3.4 Waste products 55
5.4 Matrix summarizing assessment and mitigation of impacts 56

CHAPTER 6: SOCIO-ECONOMIC AND SOCIO-CULTURAL IMPACTS
6.1 Introduction 62
6.2 Social impacts 62
   6.2.1 Job creation 62
   6.2.2 Socio cultural aspect 62
   6.2.3 Traffic impacts 63

CHAPTER 7: ENVIRONMENTAL MANAGEMENT PLAN
7.1 Introduction 64
7.2 Objectives of the EMP 65
7.3 Quality control 65
7.4 Potential impacts, their mitigation and monitoring plant 66

CHAPTER 8: ENVIRONMENTAL RISKS ASSESSMENT
8.1 Introduction 75
8.2 Risks during construction phase 75
8.3 Risks during operation 78
   8.3.1 Risks against fire 78
   8.3.2 Contingency planning 79
8.4 Emergency Response Plan 79
8.5 Fire-Fighting and emergency response plan 80

CHAPTER 9: ENHANCEMENT OPPORTUNITIES 82

CHAPTER 10: ALTERNATIVE TO PROPOSED UNDERTAKING
10.1 Introduction 83
10.2 Alternatives to project 84
   10.2.1 Alternative site 84
   10.2.2 Alternative design 84
10.3 Do-nothing scenario 86
CHAPTER 11: CONCLUSION

References

Annexes
1. Location plans and Context map
2. Master plan
3. a) Lease agreement
   b) Certificate of Incorporation
   c) Business Registration Number
   d) Correspondence from Department of Environment
4. a) Site layout plan
   b) Architectural plan
5. Topographical plan
6. Land use map
7. Material safety data sheet OPC
8. Process Flow diagram
9. a) Noise survey report March 2017
   b) Environmental noise Survey Report October 2017 and Location plan showing noise monitoring points
10. Test results for PM$_{10}$ monitoring
11. Fire emergency exit plan

List of tables:

List of Tables
Table 1a : Project team
Table 1b : Content of EIA report
Table 2a : Table showing design criteria extracted from PPG
Table 3a : Characteristics of Raw materials
Table 3b : Characteristics of the mixer
Table 3c : Summary of major equipment and their specifications
Table 3d : Characteristics of Silo
Table 3e : Setbacks Maintained
Table 3f : Parking details
Table 3g : Project implementation dates
Table 4a : Summary of noise level recorded at the various monitoring points
Table 4b : The Parameters monitored together with its measurement principles and reference
Table 4c : PM$_{10}$ monitoring test results near the operator control room
Table 4d : PM$_{10}$ monitoring test results near rock storage area
Table 4e : Consultation process
Table 5a : Apparent loudness to human ear for different sound level
Table 5b : Ambient Air Quality Standards in Mauritius
Table 5c : Emission standards Mauritius
Table 5d : Assessment and mitigation of impacts
Table 7a : Impacts and monitoring
Table 10a: Comparison between Vertical Roller Mill and Ball Mill

List of figures:

Figure 1: Site location and access
Figure 2: Site on geological map for Mauritius (1999)
Figure 3: Site on soil map for Mauritius (1962)
Figure 4: Site on Map showing Drainage area
Figure 5: Plates 1a-1f showing the existing features at the project site
Figure 6: Organisation structure of Fine Crush Ltd
Figure 7: Process Flow Diagram
Figure 8: A schematic diagram showing typical rotary dryer
Figure 9: View of a typical ball mill
Figure 10: Overview of a typical bag filter
Figure 11: A typical batch mixer
Figure 12: Noise monitoring points 1 & 2
Figure 13: Flow chart for alternative analysis