

EMERALD FOOTWEAR MFG COMPANY LIMITED

Initial Environmental Examination

**Manufacturing of All Kinds of Footwear and Semi
Footwear Products on (CMP) Basis**



MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED

Commitment and Acknowledgement

Initial Environmental Examination (IEE) describes the environmental condition of a project, including potential impact, formulation of mitigation measures and preparation of institutional requirements and environmental monitoring. This IEE report was prepared using information from the following:

- Meeting with Project Proponent,
- The experience of IEE team and
- Information solicited from baseline data

Myanwei Environmental Solutions Company Limited has prepared this report with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking into account of the resources devoted to it by agreement with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

We strongly commit that this report was prepared in compliance with Myanmar Environmental Laws and Regulations.



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ကတိကဝတ်

ကနဦးပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း အစီအစဉ်တွင် ပါရှိသည့် ပတ်ဝန်းကျင် လျော့ပါးစေရေး လုပ်ငန်းများနှင့် စောင့်ကြပ်ကြည့်ရှုရေး လုပ်ငန်းများကို လုပ်ငန်းပိုင်ရှင်မှ အကောင်အထည်ဖော်မည် ဖြစ်ကြောင်း Emerald Footwear Myanmar Limited မှ အတည်ပြုဝန်ခံ လက်မှတ်ရေးထိုးပါသည်။

- ကနဦးပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း အစီအစဉ်သည် တိကျခိုင်မာကြောင်းနှင့် ပြည့်စုံကြောင်း၊
- ဤ လုပ်ထုံးလုပ်နည်းအပါအဝင် သက်ဆိုင်ရာဥပဒေများကို တိကျစွာ လိုက်နာ၍ ကနဦးပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း အစီအစဉ် ကိုရေးဆွဲထားကြောင်း၊
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- လုပ်ငန်းလည်ပတ်ဆောင်ရွက်နေသည့် ကာလအတွင်းအတည်ပြုထားသည့် ကနဦးပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း အစီအစဉ် အား တိုးတက်နေသည့် နည်းပညာများ စနစ်များနှင့် လုပ်ငန်းလိုအပ်ချက်အပေါ် မူတည်၍ ပိုမိုကောင်းမွန်သည့် ကနဦးပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း အစီအစဉ် ဖြစ်စေရန်အတွက် ပြင်ဆင်ဖြည့် စွက်ရန် ညွှန်ကြားချက်ရှိလာပါက ဆောင်ရွက်မည်ဖြစ်ကြောင်း နှင့် လုပ်ငန်းဆောင်ရွက် သူမှ ပြင်ဆင်ဆောင်ရွက်မည်ဖြစ်ကြောင်း၊
- စက်ရုံ ပိတ်သိမ်းမည်ဆိုပါက ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာများ မထိခိုက်စေရန် အစီအစဉ်များ ချမှတ်ဆောင်ရွက်မည် ဖြစ်ကြောင်း၊

Mr. Hsueh , Chung - Kun

The promoter

LIST OF CONTENTS

LIST OF CONTENTS	I
LIST OF TABLES.....	IV
LIST OF FIGURES	VI
LIST OF APPENDICES	VIII
ABBREVIATION	IX
အစီရင်ခံစာအကျဉ်းချုပ်	X
EXECUTIVE SUMMARY.....	XVIII
1. INTRODUCTION.....	24
1.1. PROJECT BACKGROUND	24
1.2. LOCATION OF PROPOSED PROJECT	24
1.2.1. Project Implementation.....	24
1.2.2. Adjacent Condition of Project Site.....	24
1.2.3. Site Description of Proposed Project Site	25
2. PROJECT DESCRIPTION	29
2.1. PRODUCTION PROCESS.....	29
2.1.1. Description of Production Process	29
2.1.2. Products.....	31
2.2. UTILITIES.....	32
2.2.1. Raw Material.....	32
2.2.2. Machinery and Equipment.....	39
2.2.3. Human Resource.....	42
2.2.4. Water Requirement.....	43
2.2.5. Electricity and Fuel Requirement	44
2.3. FACILITIES	45
2.3.1. Fire Hazards Protect Facility	45
2.3.2. Ventilation System	46
2.3.3. Liquid Waste Control Facility	47
2.3.4. Solid Waste Management Facility	47
3. PROJECT PROPONENT PROFILE	49

Initial Environmental Examination

4. ENVIRONMENTAL CONSULTANT PROFILE.....	51
4.1. SCOPE OF IEE STUDY	51
4.1.1. The specific objectives of the IEE study are as follows:	51
4.2. IDENTIFICATION OF IEE STUDY TEAM	51
5. POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK	55
5.1. MYANMAR REGULATORY FRAMWORK	55
5.1.1. Laws and Regulations Related to Environmental and Social Considerations	55
5.2. INTERNATIONAL GUIDELINES	66
5.3. COMMITMENT OF EMERALD FOOTWEAR MFG COMPANY LIMITED	66
6. BRIEF DESCRIPTION OF SURROUNDING ENVIRONMENT	68
6.1. METHODOLOGY FOR DATA COLLECTION AND ANALYSIS.....	68
6.2. ENVIRONMENTAL BASELINE STUDY	68
6.2.1. Site Survey and Environmental Monitoring.....	68
6.2.2. Air Quality	68
6.2.3. Noise Level	69
6.2.4. Light	70
6.2.5. Indoor Temperature and Humidity.....	72
6.3. PHYSICAL COMPONENT (SECONDARY DATA).....	72
6.3.1. Topography.....	72
6.3.2. Geology.....	72
6.3.3. Tectonics.....	73
6.3.4. Soil	74
6.3.5. Hydrogeology.....	76
6.3.6. Climate and Meteorology.....	76
6.4. BIOLOGICAL COMPONENT (SECONDERY DATA).....	81
6.5. SOCIO-ECONOMIC COMPONENT	81
6.5.1. Population	81
6.5.2. Religion	82
6.5.3. Local Economy	82
6.5.4. Public Infrastructure and Access.....	82
6.6. CULTURAL AND VISUAL COMPONENTS.....	84
7. ENVIRONMENTAL IMPACT AND MITIGATION MEASURES	85

Initial Environmental Examination

7.1. IMPACT IDENTIFICATION	85
7.1.1. Positive Impact	85
7.1.2. Negative Impact.....	85
7.2. METHODOLOGY FOR THE ASSESSMENTS	86
7.3. POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION & DECOMMISSIONING PHASE	87
7.4. SIGNIFICANT IMPACTS OF PROJECT ACTIVITY AND MITIGATION MEASURE	88
8. ENVIRONMENTAL MANAGEMENT PLAN	93
8.1. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN.....	93
8.2. INSTITUTIONAL REQUIREMENT	94
8.3. STRUCTURE AND RESPONSIBILITIES FOR THE IEE DEVELOPMENT AND IMPLEMENTATION	95
8.4. ENVIRONMENTAL MANAGEMENT PROCESS.....	96
8.5. ENVIRONMENTAL MONITORING PLAN AND REPORTING.....	100
8.6.1. Assignment of responsibilities	101
8.6.2. Emergency procedures	101
8.6.3. Training for Emergencies	102
8.6.4. Fire Prevention and Protection.....	102
8.6.5. Fire Protection Equipment.....	103
8.6.6. Fire Safety and Evacuation Plan.....	103
8.6.7. Site Fire Control.....	104
8.6.8. Employee Information and Training	105
8.6.9. Health and Safety Training Plan for Worker	105
8.7. GRIEVANCE REDRESS MECHANISM (GRM)	106
9. PUBLIC CONSULTATION AND DISCLOSURE	107
9.1. PUBLIC CONSULTATION PROCESS.....	107
9.2. CORPORATE SOCIAL RESPONSIBILITY (CSR) PLAN	108
9.2.1. Public School	109
9.2.2. Non-profit Training	109
9.2.3. Healthcare.....	109
10. CONCLUSION & RECOMMENDATION	110
10.1. CONCLUSION.....	110
10.2. RECOMMENDATION.....	110
11. REFERENCE	112

LIST OF TABLES

Table 1-1	Adjacent Factories of the Project Site	25
Table 2-1	Annual Production Rate	31
Table 2-2	List of Annual Raw Materials.....	33
Table 2-3	Machinery for Production Line	39
Table 2-4	Employment List	43
Table 3-1	Salient Features of the Project.....	49
Table 4-1	Member of IEE study team.....	51
Table 5-1	List of Myanmar's Law Relating to Environmental Management	55
Table 6-1	Summary of Environmental Survey	68
Table 6-2	Observed Air Quality Results	69
Table 6-3	Location of Noise Level Survey Point	69
Table 6-4	Recommended illumination and limiting glare index based on IES Code, 1968	71
Table 6-5	Light Measurement Emerald Footwear MFG Company Limited Factory	71
Table 6-6	Temperature and Humidity Measurement at Factory	72
Table 6-7	Annual Rainfall and temperature.....	79
Table 6-8	Population of Males and Females at South Dagon Township (2019).....	82
Table 6-9	Religion in South Dagon Township (2019)	82
Table 6-10	Transportation Route.....	83
Table 6-11	List of major school in South Dagon Township.....	83
Table 6-12	Common Diseases in the South Dagon Township	84
Table 6-13	Lists of hospital in the South Dagon Township.....	84
Table 7-1	Impact assessment parameters and its scale.....	86
Table 7-2	Evaluation and Perdition of Significant Impacts and Mitigation Measures on Operation phase	88
Table 8-1	Responsibilities of HSE members.....	95
Table 8-2	Environmental management process during operation phase	97
Table 8-3	Environmental management process during decommissioning phase	98
Table 8-4	Environmental Monitoring Plan During Operation Phase	100

Initial Environmental Examination

Table 8-5	Environmental Monitoring Plan during Decommissioning Phase.....	100
Table 8-6	List of Emergency Contact Numbers	101
Table 8-7	American National Fire Fighting Association (NFFA) Standards	104
Table 8-8	Training Plan Used in Emerald Footwear MFG Company Limited	105
Table 9-1	CSR Plan at Emerald Footwear MFG Company Limited	109

LIST OF FIGURES

Figure 1-1 Location Map.....	26
Figure 1-2 Adjacent Location Map	27
Figure 1-3 Factory Layout Drawing.....	28
Figure 2-1 Process Flow Diagram.....	29
Figure 2-2 Production Photos.....	31
Figure 2-3 Product Photos.....	32
Figure 2-4 Raw Materials and Chemical Storage Photos	33
Figure 2-5 Water Supplying System	44
Figure 2-6 Electricity Facilities.....	45
Figure 2-7 Firefighting System	46
Figure 2-8 Ventilation System Photo.....	47
Figure 2-9 Drainage System	47
Figure 2-10 Waste Storage Photo.....	48
Figure 3-1 Organization Chart of Emerald Footwear MFG Company Limited	50
Figure 4-1 Consultant Registration Certificated	54
Figure 6-1 Outdoor Air Quality Measurement at the project site	69
Figure 6-2 Noise Level Measurement Photo	70
Figure 6-3 Noise Level Result Graph.....	70
Figure 6-4 Light Quality Measurement at Emerald Footwear MFG Company Limited Factory	71
Figure 6-5 Temperature and Humidity Measurement in Operation Area of the Factory.....	72
Figure 6-6 Geological Map of Yangon Region.....	73
Figure 6-7 Soil Map of Yangon (Source: Land use of Bureau of Yangon).....	75
Figure 6-8 Climate Summary of Yangon Region	77
Figure 6-9 Average temperature of Yangon Region.....	77
Figure 6-10 Cloud Cover Categories	78
Figure 6-11 Average Monthly Rainfall at Yangon Region	79
Figure 6-12 Humidity of Yangon	80

Initial Environmental Examination

Figure 6-13 Average Wind Speed in Yangon	81
Figure 7-1 Potential Negative Impact Affect from Proposed Project	85
Figure 8-1 Continuous Improvement Circle	93
Figure 8-2 Organization Structure of IEE Implementation	95
Figure 8-3 Security Layout Plan of Emerald Footwear MFG Company Limited.....	102
Figure 8-4 Grievance Redress Mechanism flow diagram.....	106
Figure 9-1 Announcement Post of Proposed Project at Social Media.....	108

LIST OF APPENDICES

APPENDIX A Company Document of Emerald Footwear MFG Company Limited

APPENDIX B Air Quality Monitoring Result

APPENDIX C Noise Level Result

APPENDIX D Light Result

APPENDIX E PowerPoint Presentation Slides

APPENDIX F List of Commitment

Abbreviation

1. CIEE	= Construction Environmental Management Plan
2. CMP	= Contract Manufacturing Process
3. CSR	= Corporate Social Responsibility
4. ECC	= Environmental Compliance Certificate
5. ECD	= Environmental Conservation Department
6. EIA	= Environmental Impact Assessment
7. EMOP	= Environmental Monitoring Plan
8. IEE	= Initial Environmental Examination
9. GIIP	= Good International Industry Practices
10. HSE	= Health, Safety and Environment
11. IEE	= Initial Environmental Examination
12. IFC	= International Finance Corporation
13. NEQG	= National Environmental Quality (Emission) Guidelines
14. MIC	= Myanmar Investment Commission
15. MOECF	= Ministry of Environmental Conservation and Forestry
16. MONREC	= Ministry of Natural Resources and Environmental Conservation
17. OIEE	= Operation Environmental Management Plan
18. OSHA	= Occupational Safety and Health Administration
19. PPE	= Personal Protective Equipment
20. WHO	= World Health Organization
21. YCDC	= Yangon City Development Committee
22. YESB	= Yangon City Electricity Supply Board

အစီရင်ခံစာအကျဉ်းချုပ်

Emerald Footwear MFG Company Limited ဖိနပ်စက်ရုံသည် မြေကွက်အမှတ် (၃၇) မြေတိုင်းရပ်ကွက်အမှတ် (၁၄၄)၊ စက်မှုဇုန် ၊ ဒဂုံမြို့သစ်တောင်ပိုင်းမြို့နယ် ၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် တည်ရှိသည်။ အဆိုပြုစီမံကိန်းသည် (၁၀၀%) နိုင်ငံခြားသားရင်းနှီးမြှုပ်နှံမှုဖြစ်ပါသည်။ အဆိုပါစက်ရုံသည် ရှေးဖီနပ်အမျိုးမျိုးနှင့် ဖိနပ်အစိတ်အပိုင်းများ CMP စနစ်ဖြင့်ထုတ်လုပ်၍ ပြည်ပသို့တင်ပို့ခြင်းလုပ်ငန်းဖြစ်ပါသည်။ စီမံကိန်းဧရိယာသည် မြေဧရိယာစုစုပေါင်း ၁.၁၃၆၇ ဧက (၄၆၀၀ စတုရန်းမီတာ) ကျယ်ဝန်းပါသည်။

ရင်းနှီးမြှုပ်နှံမှုလိုင်စင်ကို မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်ရှင်မှ ခွင့်ပြုမိန့်အမှတ် (၁၀၆၄/၂၀၁၆) ၂၀၁၆ ခုနှစ်၊ ဇန်နဝါရီလ ၂၆ ရက်နေ့တွင်ရရှိထားပြီး သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာန (MONREC)၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏ စာအမှတ် ရက-၁/၃/၄ (အီးအိုင်အေ) (၁၅၀၁/၂၀၂၀) ၁၂ ရက်၊ မေလ ၂၀၂၀ ခုနှစ်ပါ စာအရ Emerald Footwear MFG Company Limited သည် စီမံကိန်း နှင့် စီမံကိန်းပတ်ဝန်းကျင်ဆိုင်ရာ ကာကွယ်မှုများကို ဆောင်ရွက်ရပါမည်။ ထို့အပြင် သယံဇာတနှင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဝန်ကြီးဌာန လက်အောက်ရှိ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏ လမ်းညွှန်ချက်အရ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း အစ အစီရင်ခံစာအားဆောင်ရွက်ရမည် ဖြစ်ပါသည်။ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ ပေါ်လစီများ၊ ဥပဒေများ၊ နည်းဥပဒေများ နှင့် လုပ်ထုံးလုပ်နည်းများ အရ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း အစီရင်ခံစာအားဆောင်ရွက်ခြင်း၊ ပြင်ဆင်ခြင်း၊ တင်ပြခြင်းများလုပ်ဆောင်ရပါသည်။ Emerald Footwear MFG Company Limited ၏ အိတ်ချုပ်စက်ရုံအတွက် ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း အစီအစဉ်ကို Myanmar Environmental Solutions Co., Ltd. မှ စက်တင်ဘာလ ၁၇ ရက်၊ ၂၀၂၀ မှ စတင်ဆောင်ရွက်ပေးခဲ့ပါသည်။

လက်ရှိပတ်ဝန်းကျင်အနေအထားကို အကဲဖြတ်ရန် စက်တင်ဘာလ ၁၇ ရက်၊ ၂၀၂၀ ပြည့်နှစ် တွင် စက်ရုံသို့ ကွင်းဆင်း ဆောင်ရွက်ခဲ့ပါသည်။ စီမံကိန်းဆိုင်ရာ အခြေခံစစ်တမ်းများ ကောက်ယူမှုကို စီမံကိန်း လည်ပတ်စဉ်အတွင်းတွင် ဆောင်ရွက်ခဲ့ပါသည်။ စစ်တမ်းကောက်ယူသည့် အဖွဲ့တွင် အကြံပေးပုဂ္ဂိုလ်များ၊ ပတ်ဝန်းကျင်အရည်အသွေးဆန်းစစ်သူများ ပါဝင်ပါသည်။ အခြေခံ ပတ်ဝန်းကျင်ဆိုင်ရာ စစ်တမ်းများကောက်ယူမှုကို အောက်ပါအတိုင်းခွဲခြား၍ ကောက်ယူခဲ့ပါသည်။ စက်ရုံ၏ ကုန်ထုတ်လုပ်သည့်နေရာတွင် လေထုအရေအသွေး၊ အသံဆူညံမှု၊ အလင်းရောင်ရရှိမှု အခြေအနေများကို တိုင်းတာခဲ့ပါသည်။

အမျိုးအစား	တိုင်းတာမှု
လေအရည်အသွေး	(1) Sulfur dioxide (SO ₂), (2) Carbon monoxide (CO), (3) Nitrogen dioxide (NO ₂), (4) Ozone (O ₃) (5) PM ₁₀ and PM _{2.5}
ဆူညံမှု	စက်ရုံတွင်း ဆူညံသံ (LAeq)
အလင်းရောင်ရရှိမှု	အလင်းရောင်ရရှိမှု အခြေအနေ (Lux)

တိုင်းတာမှု ရလဒ်များအရ Sulfur dioxide (SO₂), Carbon monoxide (CO), Nitrogen dioxide (NO₂), Ozone (O₃), PM₁₀, PM_{2.5} တို့သည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ၏ သတ်မှတ် စံချိန်၊ စံညွှန်းများအောက်တွင်ရှိသည်ကို တွေ့ရှိရပါသည်။ ကုန်ထုတ်လုပ်မှု ဧရိယာရှိ အသံဆူညံမှုသည်လည်း အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ၏ သတ်မှတ် စံချိန်၊ စံညွှန်းများအောက်တွင်ရှိသည်ကို တွေ့ရှိရပါသည်။ လုပ်ငန်းခွင်အတွင်းအလင်းရောင်ရရှိမှု အခြေအနေသည်လည်း ကောင်းမွန်သောအခြေအနေတွင် ရှိသည်ကို တွေ့ရှိခဲ့ရပါသည်။

လူမှုစီးပွားအခြေအနေ၊ ရုပ်ပတ်ဝန်းကျင်နှင့် ဇီဝပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များ၊ ရာသီဥတုအခြေအနေစသည့် တောင်ဒဂုံမြို့နယ်ဆိုင်ရာ အစိုးရဌာနမှ တင်ပြထားသည့် အချက်အလက်များမှ ရယူ၍ ထည့်သွင်းထားပါသည်။ အဆိုပြုစီမံကိန်းမြေသည် စက်မှုဇုန်ဧရိယာအတွင်းတွင်တည်ရှိပါသည်။ ၂၀၁၉ ခုနှစ် စစ်တမ်းအရ တောင်ဒဂုံမြို့နယ်၏ လူဦးရေမှာ ၃၂၅,၈၆၆ ဖြစ်ပါသည်။

စီမံကိန်းလုပ်ဆောင်ချက်များကြောင့် ပတ်ဝန်းကျင်ဆိုင်ရာ အရင်းအမြစ်များ၊ စီးပွားဆိုင်ရာ အရင်းအမြစ်များ၊ အမှိုက်စွန့်ပစ်မှု စသည့် သက်ရောက်မှုများဖြစ်ပေါ်လာနိုင်ပါသည်။ စီမံကိန်းလုပ်ဆောင်ချက်ကြောင့်သက်ရောက်မှုများ နှင့် လျော့ချရေးနည်းများ အကျဉ်းချုပ်ကို အောက်တွင်ဖော်ပြထားပါသည်။

အုပ်စုများ	သက်ရောက်မှု အရင်းအမြစ်	လျော့ချရေးနည်းလမ်းများ
လေအရည်အသွေး	ကုန်ကြမ်းပစ္စည်းများ၊ ကုန်ချောပစ္စည်းများ သယ်ယူဆောင်သော ယာဉ်များမှ ဖုန်မှုန့်များ၊ ဖန်လုံအိမ် အာနိသင်ဖြစ်စေသော ဓာတ်ငွေ့များထွက်ရှိခြင်း၊ အရေးပေါ် မီးစက်များနှင့် ယာဉ်အသွားအလာမှ ထွက်သော မီးခိုးများ	<ul style="list-style-type: none"> လေညစ်ညမ်းမှုများကိုထိန်းချုပ်ခြင်း၊ ယာဉ်များ၊ မီးစက်များ၊ စက်ပစ္စည်းများကို ပုံမှန်စစ်ဆေးခြင်း။ ယာဉ်များ၊ ကွန်ပရက်ဆာ၊ မီးစက်များကို ကောင်းမွန်စွာ ထိထိန်းသိမ်းခြင်း မီးခိုးထွက်ရှိမှုများကို စစ်ပေးသည့်အိတ်များတပ်ဆင်စေခြင်း
မြေအရည်အသွေး	အင်ဂျင်ဆီများ၊ ဒီဇယ်ဆီများသိုလှောင်ခြင်းနှင့် ဖိတ်ယိုခြင်း	<ul style="list-style-type: none"> ထိခိုက်မှုလျော့ချရန်မလိုပါ။
ဆူညံသံနှင့် တုန်ခါမှု	ကုန်ပစ္စည်းထုတ်လုပ်သည့်လုပ်ငန်းများမှ စက်ပစ္စည်းများမှ ဆူညံသံများထွက်ခြင်း	<ul style="list-style-type: none"> မီးစက်အား သီးခြားအခန်းများ တည်ဆောက်ပေးခြင်း အသံထုတ်လွှတ်မှုနည်းသည့် ကိရိယာများ တပ်ဆင်စေခြင်း အသံကာကွယ်ရေးပစ္စည်း (သို့) တစ်ကိုယ်ရေသုံးကာကွယ်ပစ္စည်းများ တပ်ဆင်စေခြင်း
ကုန်းနေ အပင်နှင့် သတ္တဝါများ၊ ရေနေ နသတ္တဝါများ	ဖိနပ်ချုပ်လုပ်ငန်းလုပ်ဆောင်ခြင်း	<ul style="list-style-type: none"> ထိခိုက်မှုလျော့ချရန်မလိုပါ။
မီးဘေးအန္တရာယ်	လျှပ်စစ်တပ်ဆင်ရာတွင်	<ul style="list-style-type: none"> စက်ရုံ၏မီးဘေးအန္တရာယ်ကာကွယ်ရန်အတွက် မီးသတ်ဗူး၊

Initial Environmental Examination

	စနစ်တကျတပ်ဆင်မှု မရှိခြင်း ကုန်ကြမ်းပစ္စည်း စွန့်ပစ်ခြင်း၊ ဓာတုပစ္စည်း သိုလှောင်ခြင်း။	မီးသတ်ပိုက်၊ မီးသတ်ခေါင်း များထားရှိခြင်း။ • မီးသတ်ဆိုင်ရာစက်ပစ္စည်းကိရိယာများကိုပုံမှန်စစ်ဆေးခြင်း၊ အရေးပေါ်အခြေနေအတွက် မီးသတ်ရေကန်အဆင်သင့်ထားရှိခြင်း။ • စက်ရုံအတွင်းအရေးပေါ်အချက်ပေးစနစ်များထားရှိခြင်း။ • အရေးပေါ်ထွက်ပေါက်များတွင်တစ်လျှောက်တွင် ကုန်ပစ္စည်းများပိတ်ဆို့ခြင်းမရှိအောင်ရှင်းလင်းထားရှိခြင်း။
လုပ်ငန်းခွင် ဘေးအန္တရာယ်	စက်ပစ္စည်းများ လ လည်ပတ်ခြင်းကြောင့် မတော်တဆ ထိခိုက်မှုများ ဖြစ် ပေါ်နိုင်ခြင်း။ ပစ္စည်းတင်ချလုပ်ခြင်း၊ ဖြတ်တောက်ခြင်း၊ ရောနှောခြင်း၊ ဖိနှိပ်ခြင်း၊ ထုတ်ပိုးခြင်း။	• အရေးပေါ်အခြေအနေများအတွက် စက်ပစ္စည်းကိုင်တွယ်မှုသင်တန်းပေးခြင်း၊ ကြက်ခြေနီသင်တန်းပေးခြင်း၊ မီးသတ်သင်တန်းပေးခြင်း။ • လုပ်ငန်းခွင်တွင်း အလုပ်သမားများ အလင်းရောင် ကောင်းစွာ ရရ ရရှိစေရန်နှင့် အမြင်အာရုံမထိခိုက်စေရန် အလင်းရောင်များကို လုံလောက်စွာထားရှိခြင်း။ • အလုပ်သမားများအတွက် တစ်ကိုယ်ရေ ကာကွယ်ရေးသုံး ပစ္စည်းများဖြစ်သည့် နားကြပ်၊ လက်အိတ်၊ ဦးထုတ်၊ မျက်မှန် များ အသုံးပြုစေခြင်း။ • လျှပ်စစ်အန္တရာယ် မဖြစ်စေရန် နှင့် ပြုပြင်ထိန်းသိမ်းမှုများ ပြုလုပ်ရန် အတွက် ဝန်ထမ်းထားရှိ၍ ပုံမှန်စစ်ဆေးခြင်း။
ကျန်းမာရေး	တစ်ကိုယ်ရေအသုံးပြုမှု၊ မီးဖိုချောင်မှ ရေဆိုးများထွက်ရှိခြင်း၊ အရေးပေါ် မီးစက်များမှ ဆူညံသံများထွက်ပေါ်လာခြင်း။	• လုပ်သားများအတွက် ကျန်းမာရေး မထိခိုက်စေရန် ရေမြောင်းများကို စနစ်တကျ တကျထားရှိခြင်း။ • COVID-19 ကြိုတင်ကာကွယ်မှုအဖြစ် စက်ရုံအနှံ့အပြား လက်ဆေးကန်နှင့်ဆပ်ပြာများထားရှိခြင်း၊ လူတစ်ဦးနှင့်တစ်ဦး သုံးပေအကွာထားရှိခြင်း နှင့် အဓိကအားဖြင့်ပိုးမှာ လေမှကူးစက်တက်သောကြောင့် FACE-MASKများတပ်ဆင်ထားရမည်။ • လုပ်သားများအတွက် ရှစ်နာရီအတွင်းလက်ခံနိုင်သည့်အာမြင့်ဆုံး ဆူညံမှု နှုန်းမှာ 90dB(A) ဖြစ်သည်။ အသံဆူညံမှု အမြင့်ဆုံးနေရာများတွင် နားကြပ်များ တပ်ဆင်စေခြင်း။
စွန့်ပစ်အပိုင်အခဲများ	ကုန်ထုတ်လုပ်သည့် နေရာမှ ထွက် ထွက်ရှိသော ပိတ်အပိုင်းအစများ။ ကုန်ပစ္စည်း ထုတ်ပိုးခြင်းမှထွက် ရှိသော အပိုင်းအစများ။ မီးဖိုချောင် လူနေဆောင် ရုံးခန်းမှ ထွက်ရှိသော အမ	• စက်ရုံအတွင်း အမှိုက်ပုံးများထားရှိခြင်း။ • သတ်မှတ်ထားသောနေရာတွင် အမှိုက်စိုက်၊ အမှိုက်ခြောက်များ ခွဲခြားစွန့်ပစ်ခြင်း။ • အမှိုက်များကို ရန်ကုန်မြို့တော် စည်ပင်သာယာရေးကော်မတီနှင့် ချိတ်ဆက်၍ စွန့်ပစ်ခြင်း။

Initial Environmental Examination

	အမှိုက်များ။	
စွန့်ပစ်အရည်	မိလ္လာစနစ်ထားရှိခြင်း။ ရုံးခန်း၊ မီးဖိုချောင် နှင့် လူနေဆောင်များမှ စွန့်ပစ်အရည်များတွက်ရှိခြင်း။	<ul style="list-style-type: none"> ဆီကန်၊ မိလ္လာကန်များ ကိုပုံမှန်စစ်ဆေးခြင်း၊ သန့်စင်ခြင်းများ ပြုလုပ်ခြင်းဖြင့် စွန့်ပစ်အရည်များ စိမ့်ဝင်မှုများကို လျော့ကျစေနိုင်ခြင်း။
အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများ	မော်တော်ယာဉ်များ စက်ပစ္စည်းများ ပြုပြင်ထိန်းသိမ်းခြင်းမှ ဆီများတွက်ရှိခြင်း။	<ul style="list-style-type: none"> အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများသိုလှောင်မှု အားထိန်းသိမ်းခြင်း စစ်ဆေးခြင်း။ လုပ်ငန်းခွင်ကျန်းမာရေး လုံခြုံမှုနှင့်ပတ်ဝန်းကျင်ဆိုင်ရာ လိုအပ်ချက်များ နှင့်ကိုက်ညီမှုရှိစေရန် ဓာတုပစ္စည်းများကို စနစ်တကျစွန့်ပစ်ခြင်း။ ဓာတုပစ္စည်းသိုလှောင်သည့် ပုံးခွန်များကို စနစ်တကျ ပြန်လည်အသုံးပြုခြင်း (သို့မဟုတ်) စနစ်တကျစွန့်ပစ်ခြင်း။ အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများကို ရန်ကုန်မြို့တော်စည်ပင် သာ သာယာရေး ကော်မတီ (သို့မဟုတ်) လိုင်စင်ရ အမှိုက်စွန့်ပစ်ရေး ဆိုင်ရာအဖွဲ့အစည်းများ (ဥပမာ DOWA or YCDC) နှင့် ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်

စီမံကိန်းဖော်ဆောင်သည့် အချိန်အတွင်း ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများ၊ လျော့ချရေး နည်းလမ်းများ၊ အစီအစဉ်များ၊ တိုင်းတာမှုများ စသည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်များကို လုပ်ဆောင်ရပါသည်။ Emerald Footwear MFG Company Limited မှ စက်ရုံတွင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် အဖွဲ့အစည်းဖွဲ့စည်းခြင်း၊ ပုံမှန်ဆန်းစစ်လေ့လာခြင်းများ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။ ပတ်ဝန်းကျင် လေထုအရည်အသွေး၊ မိလ္လာစနစ်၊ စွန့်ပစ်အစိုင်အခဲ စွန့်ပစ်မှုများကို စက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အဖွဲ့အစည်းမှ ဆန်းစစ်သွားမည်ဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်းမှ လူထုအကျိုးပြုလုပ်ငန်းများ နှင့် အရေးပေါ်ဆောင်ရွက်ချက်များ၊ ဒေသဆိုင်ရာ အကျိုးပြုလုပ်ငန်းများကို လုပ်ဆောင်သွားမည်ဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်းသည် ရရှိလာသော အကျိုးအမြတ်၏ ၂% ကို လူမှုဖူလုံရေးလုပ်ငန်းများတွင် သုံးစွဲသွားမည် ဖြစ်ပါသည်။

Emerald Footwear MFG Company Limited ၏ လူထုအကျိုးပြုလုပ်ငန်းများဆောင်ရွက်မည့် အစီအစဉ်

စဉ်	အကြောင်းအရာ	လှူဒါန်းမှု ရာခိုင်နှုန်း	ခန့်မှန်းလှူဒါန်းတန်ဖိုးငွေ (ကျပ်)
၁။	စာသင်ကျောင်းများ	၀.၅%	၂,၅၀၀,၀၀၀
၂။	သင်တန်းကျောင်းများ	၁%	၅,၀၀၀,၀၀၀
၃။	ဝန်ထမ်းများ၏ ကျန်းမာရေးစောင့်ရှောက်မှု	၀.၅%	၂,၅၀၀,၀၀၀

Initial Environmental Examination

စက်ရုံအတွက် သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာလုပ်ဆောင်ချက်များသည် စက်ရုံသို့ကွင်းဆင်းလေ့လာခဲ့သော ကျွမ်းကျင်ပညာရှင်များမှ စက်ရုံ၏ဆောင်ရွက်ချက်များ၊ စက်ရုံပန်ထမ်းများ၊ နယ်ပယ်ဆိုင်ရာအဖွဲ့အစည်းများ၏ အမြင်များ နှင့် စက်ရုံမှ သက်ဆိုင်သူများ၏တိုင်ပင်ဆွေးနွေးအကြံပြုချက်များအပေါ် အခြေခံ၍ ရေးဆွဲပြင်ဆင်ထားပါသည်။ ဖြစ်နိုင်ချေရှိသော ပတ်ဝန်းကျင်ထိခိုက်မှုများအပေါ် မူတည်၍ လိုအပ်သည့် သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှုလုပ်ဆောင်ချက်များမှာ အောက်ပါအတိုင်းဖြစ်ပါသည်။

၁။ လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်ဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်

၂။ ဆူညံသံဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်

၃။ မီးဘေးအန္တရာယ် စီမံခန့်ခွဲမှုအစီအစဉ်

၄။ လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေးဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်

၅။ အစိုင်အခဲစွန့်ပစ်ပစ္စည်း စီမံခန့်ခွဲမှုအစီအစဉ်

၆။ စွန့်ပစ်အရည် (ရေဆိုး) စီမံခန့်ခွဲမှုအစီအစဉ်

၇။ အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်း စီမံခန့်ခွဲမှုအစီအစဉ်

၈။ အရေးပေါ်အခြေအနေဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်

၉။ အရေးပေါ်တုံ့ပြန်မှုနှင့် သဘာဝဘေးအန္တရာယ်စီမံခန့်ခွဲမှုအစီအစဉ်

သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုခြင်းနှင့် အစီရင်ခံခြင်း

တာဝန်ရှိသော ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း အစီရင်ခံစာရေးဆွဲပြုသူများသည် စီမံကိန်းဧရိယာနှင့် အဆောက်အဦများကို နေ့စဉ်၊ အပတ်စဉ် သို့မဟုတ် လစဉ် အထွေထွေစစ်ဆေးခြင်းများ ပြုလုပ်နိုင်ပါသည်။ စီမံကိန်းအဆိုပြုသူသည် သဘာဝပတ်ဝန်းကျင်နှင့်သက်ဆိုင်သော ဖော်ပြထားသည့် လေ့လာစောင့်ကြည့်ရေး အချိန်ဇယား အစီရင်ခံစာအား (၆) လတစ်ကြိမ်ထက် နောက်မကျဘဲ ဝန်ကြီးဌာနသို့ တင်ပြရမည်။

လုပ်ငန်းလည်ပတ်ခြင်းကာလ					
လေထုအရ ရည်အသွေး	SO2, NO2, CO, O3 PM2.5, PM10	တစ်နှစ် နှစ်ကြိမ် စောင့်ကြည့်စစ်ဆေးလေ့လာခြင်းနှင့် အစီရင်ခံစာ ဝန်ကြီးဌာနသို့ တင်ပြခြင်း	အဆိုပြုစီမံကိန်း၏ အတွင်းဘက်နှင့် အပြင်ဘက်ဧရိယာ	၁၀၀၀၀၀၀ ကျပ်/တစ်နှစ်	Environmental Management Team's Emerald Footwear MFG

Initial Environmental Examination

					Company Limited
ဆူညံသံ	dBA	တစ်နှစ် ၂ ကြိမ်	လုပ်ငန်းလည်ပတ်မှု ဧရိယာ	၅၀၀၀၀ ကျပ်/တစ်နှစ်	Environmental Management Team's Emerald Footwear MFG Company Limited
အလင်းရောင်	Illuminance	လစဉ်	လုပ်ငန်းလည်ပတ်ရာ လိုင်းတန်းများ	၂၀၀၀၀ ကျပ်/တစ်နှစ်	Environmental Management Team's Emerald Footwear MFG Company Limited
အမှိုက်စွန့်ပစ်မှု	Solid waste, Liquid waste and Hazardous waste	အပတ်စဉ်	စက်ရုံ၏ အမှိုက်စွန့်ပစ်မှုနေ့နရာ	၃၅၀၀၀ ကျပ်/ကားတစ်စီးစာ	Environmental Management Team's Emerald Footwear MFG Company Limited
မီးဘေးအန္တရာယ်	Visual inspection , firefighting equipment	လစဉ်	စက်ရုံဝန်း	၆၀၀၀၀ ကျပ်/တစ်နှစ်	Environmental Management Team's Emerald Footwear MFG Company Limited
လုပ်ငန်းဖျက်သိမ်းခြင်းကာလ					

Initial Environmental Examination

လေထုအရ ရည်အသွေး	SO ₂ , NO ₂ , CO, O ₃ , PM _{2.5} , PM ₁₀	လုပ်ငန်းဖျက်သိမ်းခြင်းကာလ အတွင်းတစ်ကြိမ်	ဖျက်သိမ်းခြင်း ဧရိယာ	၅၀၀၀၀ ကျပ်	မြေပိုင်ရှင်
ဆူညံသံ	Noise level in decibel (dBA)	လုပ်ငန်းဖျက်သိမ်းခြင်းကာလ အတွင်းတစ်ကြိမ်	ဖျက်သိမ်းခြင်း ဧရိယာ	၁၅၀၀၀ ကျပ်	မြေပိုင်ရှင်

သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း အစီအစဉ်တွင် စက်ရုံ၏ IEE အစီရင်ခံစာ အကြောင်းကို ရှင်းလင်းတင်ပြခြင်းဖြစ်သည်။ တွေ့ဆုံပွဲကို နိုင်ငံရေးကြောင့်လည်းကောင်း ကျန်းမာရေးဆိုင်ရာ Covid - 19 စည်းကမ်းချက်များကြောင့် ၂၇ရက် ဇန်နဝါရီလ ၂၀၂၁ ခုနှစ်တွင် လူမှုကွန်ယက်မှပင် ကြေညာခြင်းပြုလုပ်ခဲ့ပါသည်။ အဆိုပါထုတ်ပြန်ကြေငြာခြင်းတွင် အဆိုပြုစက်ရုံဆိုင်ရာ အချက်အလက်များ၊ ပတ်သက်သည်များ အကျဉ်းချုံးပြီး တင်ပြထားပါသည်။ အဆိုပြုစီမံကိန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ အကျဉ်းကို ဤ (https://drive.google.com/file/d/1c9e3NP5na19e3NP5na1YcN2mKMrl3OXjwOn7VAyn8/view?usp=drive_sdk) တွင် အသေးစိတ်ဝင်ရောက်ဖတ်ရှုနိုင်ပါသည်။

နိဂုံးနှင့် အကြံပြုချက်

အကျဉ်းချုပ်အားဖြင့် ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒလမ်းညွှန်ချက်များအတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာဆောင်ရွက်ကျင့်သုံးရန်တာဝန်များကို ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်တွင် ဖော်ပြရှင်းလင်းတင်ပြထားပါသည်။ စီမံကိန်းနှင့် သက်ဆိုင်သူများအား စီမံကိန်းဆိုင်ရာ အကြောင်းအရာများ ရှင်းလင်းတင်ပြခြင်း၊ အကြံပြုချက်များနှင့် ဆွေးနွေးတင်ပြလာသည့် သဘောထား အကြံဉာဏ်များကိုရယူပြီး အစီအရင်ခံစာတွင် ဖော်ပြထားပါသည်။

အကြံပြုချက်များအရ-

- အစီရင်ခံစာတွင် ဖော်ပြထားသည့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် ကတိကဝတ်များကို စီမံကိန်း၏ သက်တမ်းတလျှောက်တွင် အကောင်အထည်ဖော် ဆောင်ရွက်ရမည်။
- အစီအစဉ်နှင့် အရည် ဓန့်ပစ်ပစ္စည်းများကို ရန်ကုန်မြို့တော် စည်ပင်သာယာရေးကော်မတီ၏ စည်းကမ်းများအတိုင်း စန့်ပစ်ရမည်။
- အလုပ်သမားများအား သင့်တော်သော သင်တန်းများပေးခြင်း၊ လုပ်ငန်းခွင်အတွင်း တစ်ကိုယ်ရည် ကာကွယ်ရေး ပစ္စည်းများ အသုံးပြုစေခြင်းများ ဆောင်ရွက်ရမည်။

Initial Environmental Examination

- ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်များကို နေ့စဉ်၊ လစဉ်နှင့် နှစ်စဉ် လုပ်ငန်းခွင်အတွင်း လုပ်ဆောင်ရမည်။
- ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ် မှတ်တမ်းများကို သေချာသိမ်းဆည်း၍ တတိယအဖွဲ့အစည်း သို့ တင်ပြရမည်။

EXECUTIVE SUMMARY

The Shoe Factory of Emerald Footwear MFG Company Limited is located in Plot No. (37), Myay Taing Block No.144, Industrial Zone, Dagon Myo Thit (South) Township, Yangon Region Myanmar. The said project is 100% foreign direct investment of by Emerald Footwear MFG Company Limited. The purpose of the investment is to manufacture all kinds of footwear and semi footwear products on (CMP) System and to export the products fully.

Emerald Footwear MFG Company Limited has got the MIC Permit No-1064/2016 from Myanmar Investment Commission on 26 January, 2016 and ECD recommendation got from Ministry of Natural Resources and Environmental Conservation (MONREC), Environmental Conservation Department notification no. YaKa-1/3/4 (EIA) (1501/2020) on 12 May 2020. According to ECD recommendation, Emerald Footwear MFG Company Limited shall responsible for the preservation of the environment and around the area of the project site. In addition to this, it shall carry out as per instructions made by Ministry of the Natural Resources and Environmental Conservation (MONREC) under Environmental Conservation Department (ECD) in which to conduct an Initial Environmental Examination (IEE). It has to prepare, submit, perform activities in accordance with this IEE, and abide by the environmental policy, Environmental Conservation Law and other environmental related rules and procedures. IEE for shoe factory to be implemented by Emerald Footwear MFG Company Limited has been started by Myanwei Environmental Solutions Co., Ltd. (Myanwei) in 17 September 2020.

To determine the existing baseline environmental quality within the project site on 17 September 2020. The field observation for determining the environmental baseline of the proposed project area was undertaken during operation period. The survey team consists of the senior consultant and environmental quality team. The baseline data collected regarding the environmental condition of the project area was conducted in the following section. On-site measurement includes indoor air quality, noise level and operation light condition at the factory.

Item	Parameter
Air quality	(1) Sulfur dioxide (SO ₂), (2) Carbon monoxide (CO), (3) Nitrogen dioxide (NO ₂), (4) Ozone (O ₃), (5) PM ₁₀ and PM _{2.5}
Noise level	Indoor sound level (LAeq)
Light Level	Industry light condition (Lux)

The particulate matter (PM_{2.5}, PM₁₀,) and gases level of (CO, O₃, SO₂ and NO₂) are within the National Environmental Quality (Emission) Guideline. Noise in the workshop area is acceptable when compared with National Environmental Quality (Emission) Guideline. The result of light measurement at operation area (inside the production sector) is good condition to the acceptable level of standard.

Moreover, secondary data collection of proposed project site area such as socio-economic condition, physical/ biological environment, weather data where be received from official township data was reference by Regional Data of Dagon Myothit (South) Township. The proposed project site is initiated into the industrial zone area. In 2019, the population of Dagon Myothit (South) Township is about 325,866 peoples.

The project activities may cause impacts on environmental resources, ecological resources, human and waste disposal. The summary of impacts with respect to project activities and mitigation measures are described as below:

Initial Environmental Examination

Categories	Source of Impact	Mitigation Measure
Air	<ul style="list-style-type: none"> Dust and GHGs emission from vehicles used for transporting raw materials and final products Emission from emergency diesel generator and vehicle movement 	<ul style="list-style-type: none"> To control air pollution, the vehicles, generators and machineries have to check and maintain regularly Ensuring vehicles, compressor and generator are well maintained
Water	<ul style="list-style-type: none"> Production process 	<ul style="list-style-type: none"> Should promote the continuous reduction in water consumption and achieve saving in the water pumping and disposal costs Regularly maintain plumping and repair leaks Flash stream recovery Cooling the blow down water and measure the temperature of it.
Soil	<ul style="list-style-type: none"> Engine oil leaks, spills at diesel storage and during fuel refueling. 	<ul style="list-style-type: none"> No Mitigation Measure
Noise and Vibration	<ul style="list-style-type: none"> Generating noise from the production machinery 	<ul style="list-style-type: none"> Should be build individual room like as generator room. Low noise equipment should be used Should be provide the noise covering equipment or personal protective equipment (PPE)
Flora and fauna on terrestrial and aquatic life	<ul style="list-style-type: none"> Operation of the shoe factory 	<ul style="list-style-type: none"> No Mitigation Measure
Fire	<ul style="list-style-type: none"> Poor electrical installations Waste disposed area raw materials and chemical storage 	<ul style="list-style-type: none"> To provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening. The emergency fire alarms are installed at the factory for alerting the workers in case of fire. The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases.
Occupational Safety	<ul style="list-style-type: none"> Accidental cases cause by operating machines. Unloading, mixing, cutting, pressing and packaging activities. Accidental cases of thermic fluid heater 	<ul style="list-style-type: none"> First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. To prevent electric shock hazards, electrical

Initial Environmental Examination

Categories	Source of Impact	Mitigation Measure
		maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.
Health	<ul style="list-style-type: none"> Influx of people Noise from the generating of the emergency generators 	<ul style="list-style-type: none"> Manage the drainage systems of the factory to prevent health risk of the workers. Provide the hand-wash basin, hand sanitizer and face masks and then specify the social distancing The maximum allowable noise level for workers is 90dB(A) for 8-hours exposure a day. Thus, adequate protective noise impact measures in the form of ear muffs/ear plugs to the workers working in high noise areas
Solid Waste	<ul style="list-style-type: none"> Residual pieces of fabric scraps from the production lines Waste from packaging materials Waste from kitchen, dormitory and office. 	<ul style="list-style-type: none"> Provides separate garbage bins at each building. All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area Final wastes should be disposed by using YCDC's service.
Liquid Waste	<ul style="list-style-type: none"> Septic system and sewage. Disposal of domestic liquid waste from office, kitchen and dormitory. 	<ul style="list-style-type: none"> Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous Waste	<ul style="list-style-type: none"> Used oil and lubricant discharged from the maintenance of vehicles and machines. 	<ul style="list-style-type: none"> Proper inspection and maintenance in storage of hazardous waste. Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. The empty chemical containers will hand over to suppliers for recycle or appropriate disposal The hazardous wastes are transported by specially licensed carriers and disposed in a licensed faculty (e.g. DOWA and YCDC)

Environmental Management Process

The Environmental Management Process formulated with the anticipated impacts, mitigation measures, management and monitoring plans during all phases are implemented. Emerald Footwear MFG Company Limited has organized Environmental Management Team to accomplish these plans and to review IEE regularly for improvements and modifications. Ambient air quality, noise, water quality, sewage and solid waste disposal are monitored by Team Leaders of Committee. The project proponent has performed Corporate Social Responsibility (CSR) plan and Emergency Preparedness for the benefits of residents and local community. Emerald Footwear MFG Company Limited will contribute 2% of our Net Profit to social welfare activities that will help society and country of Myanmar.

CSR plan of Emerald Footwear MFG Company Limited

No	Particle	Contribution	Estimated Cost (Kyat)
1	Public school	0.5%	2,500,000
2	Non-profit training	1	5,000,000
3	Employee healthcare	0.5%	2,500,000

The environmental management action for the factory has been prepared to address potential issues based upon discussion with factory management, workers, local community's view, stakeholder consultation and from the site visit of experts. The IEE is additional to and compliments the factory's safety management system. The following environmental issues that require environmental management action based upon the potential impacts of activities:

1. Air pollution/Dust Management plan
2. Noise Management Plan
3. Fire Management Plan
4. Occupational Safety and Health Management Plan
5. Solid Waste Management plan
6. Liquid Waste Management Plan
7. Hazardous Waste Management Plan
8. Energy Management plan
9. Emergency Response and Disaster Management Plan

Environmental Monitoring Plan and Reporting

The IEE cell members responsible may conduct daily, weekly or monthly general inspections of the project area and facilities. The environmental monitoring schedule for Emerald Footwear MFG Company Limited submits monitoring report to the Ministry not less frequently than every six (6) months, as provided in a schedule in the IEE,

Operation Phase					
Common	Monitoring of mitigation measures	Yearly (3 years after operation)	The project	3,000,000 Kyats/year	Environmental Management Team's Emerald Footwear MFG Company Limited
Air quality	SO ₂ , NO ₂ , CO, O ₃ , PM _{2.5} , PM ₁₀	Biannually monitoring and reporting to ECD (first 3 years after operation)	Outdoor and Indoor of proposed project	1,000,000 Kyats/year	Environmental Management Team's Emerald Footwear MFG Company Limited
Noise	dBA	Biannually monitoring and reporting to ECD	Operation Area	500,000 Kyats/year	Environmental Management Team's Emerald Footwear MFG Company Limited
Light intensity	Illuminance	Monthly	At the production line (especially cutting and QC)	200,000 Kyats/year	Environmental Management Team's Emerald

Initial Environmental Examination

					Footwear MFG Company Limited
Waste Generation	Solid waste, Liquid waste and Hazardous waste	Weekly	Recycle house and waste house and at the factory office	35,000 Kyats/track load	Environmental Management Team's Emerald Footwear MFG Company Limited
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	At the factory	600,000 Kyats/year	Environmental Management Team's Emerald Footwear MFG Company Limited
Decommissioning Phase					
Air quality	SO ₂ , NO ₂ , CO, O ₃ , PM _{2.5} , PM ₁₀	One time during this phase	One point in the demolishing area	500,000 Kyats	Land Owner
Noise	Noise level in decibel (dBA)	One time during this phase	One points in demolishing area	150,000 Kyats	Land Owner

Public Consulting

Public consultation meeting for Emerald Footwear MFG Company Limited celebrated on social media. During the preparation of this report, the COVID-19 becomes serious in Yangon. The Ministry of Health and Support declared to avoid gathering more than 5 people by closely contacting and to prevent spreading of disease. Thus, the present condition, the project's environmental condition and the management plans are through the social media of Myanwei Environmental Solutions Company Limited Facebook page

(https://drive.google.com/file/d/1c9e3NP5na19e3NP5na1YcN2mKMrl3OXjwOn7VAyn8/view?usp=drive_sdk) declared on 27th January 2021. The suggestions, complains and comments from the public, organization and stakeholder are warmly welcome and accept via mailing, comment, telephoning and messengers.

Conclusion and Recommendation

In Conclusion, the environmental management practices, procedures and responsibilities are defined here in to get full compliance with the existing environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar. All the feed backs, desired and needs of local public recorded in public consultation meetings are well addressed and incorporated in formulation of IEE. It has been figured out that, the proposed garment factory is going to generate local employment opportunities and enhance capabilities and working skills of employees. Consequently, their socio-economic standard is expected to be improved and undertaking corporate social responsibilities (CSR) as recommended. The study further concluded that positive impacts will be of immense benefit to the local community and national development as well.

This is recommended that;

- All appropriate environmental management measures detailed in this report, together with any other environmental management commitments should be implemented throughout the entire life of the factory

Initial Environmental Examination

- Solid wastes and liquid wastes need to dispose according to YCDC rules and regulation
- Workers should be provided proper training and it should be ensured that workers use PPE during factory operation area.
- Daily, monthly and annual action plan shall be formulated based on this IEE and practiced at operation level.
- Keep full records of environmental management activities and present to annual independent third-party environment audit.
- Abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

Finally, the proponent should follow the comments and suggestions made by ECD after reviewing this IEE report. Once concerned authorities approve IEE, effective implementation of IEE by the project proponent is essential. The proponent should abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

1. INTRODUCTION

1.1. PROJECT BACKGROUND

Emerald Footwear MFG Company Limited has got the Myanmar Investment Commission No-1064/2016 from Myanmar Investment Commission on 26 January, 2016 and ECD recommendation got from Ministry of Natural Resources and Environmental Conservation (MONREC), Environmental Conservation Department notification no. YaKa-1/3/4 (EIA) (1501/2020) on 12 May 2020. According to ECD recommendation, Emerald Footwear MFG Company Limited shall responsible for the preservation of the environment and around the area of the project site. In addition to this, it shall carry out as per instructions made by Ministry of the Natural Resources and Environmental Conservation (MONREC) under Environmental Conservation Department (ECD) in which to conduct an Initial Environmental Examination (IEE). It has to prepare, submit, perform activities in accordance with this IEE, and abide by the environmental policy, Environmental Conservation Law and other environmental related rules and procedures. Therefore, Emerald Footwear MFG Company Limited commissioned Myanmar Environmental Solutions Company Limited (Myanwei) for IEE report study.

This IEE report is prepared based on the impact identified in EIA procedure (2015). The IEE is prepared provide additional guidance on the means, methods and mechanisms by which such mitigation measures will be implemented. The IEE is one of the most important outputs of the environmental assessment process. The IEE is the synthesis of all proposed mitigate and monitoring actions, set to a timeline with specific responsibility assigned and follow up actions defined. The IEE can be prepared at different times of the project life. Operation Initial Environmental Examination is developed to ensure that appropriate environmental practices are followed during a project's operation and decommissioning phases. As the factory is already built operation Initial Environmental Examination is designed for this factory.

1.2. LOCATION OF PROPOSED PROJECT

The proposed project is located at Latitude 16°53'31.82"N and Longitude 96°15'3.91"E, Plot No. (37), Myay Taing Block No.144 Industrial Zone, Dagon Myo Thit (South) Township, Yangon Region. The location map of the proposed project site is shown in Figure 1-1. The proposed project intends to manufacture all kinds of footwear and semi footwear products on CMP basis and to export 100% of the finished products. Raw materials for footwear and semi footwear products are imported from China.

1.2.1. Project Implementation

Implementation of the proposed project includes (1) construction of factory and office buildings, and warehouses, (2) installation of machinery and equipment, and (3) operation of the said factory. The proposed duration of the investment shall be 10 years.

1.2.2. Adjacent Condition of Project Site

Bago Wun Htaut U Tin Street was situated at the west of the factory and Aung Myint Moh Street was also situated at the east of the project site. List and map of adjacent condition of project site is shown in Table 1-1 and Figure 1-2.

Table 1-1 Adjacent Factories of the Project Site

Nature of Factory	Location
Pinnacle Sporting Goods Co.,Ltd	South
Kyay Hmone Co.,Ltd	North

1.2.3. Site Description of Proposed Project Site

The total area of project site is 1.1367 acres (4600 sqm). Main structure is designed into office (such as HR Dept, MR Dept, Audit Dept and Meeting Room) and production area. In addition, transformer, generator room, power distribution room, security room, waste storage room and canteen are separated from main factory building structure. Factory layout drawing is able to seen in Figure 1-3.

Initial Environmental Examination

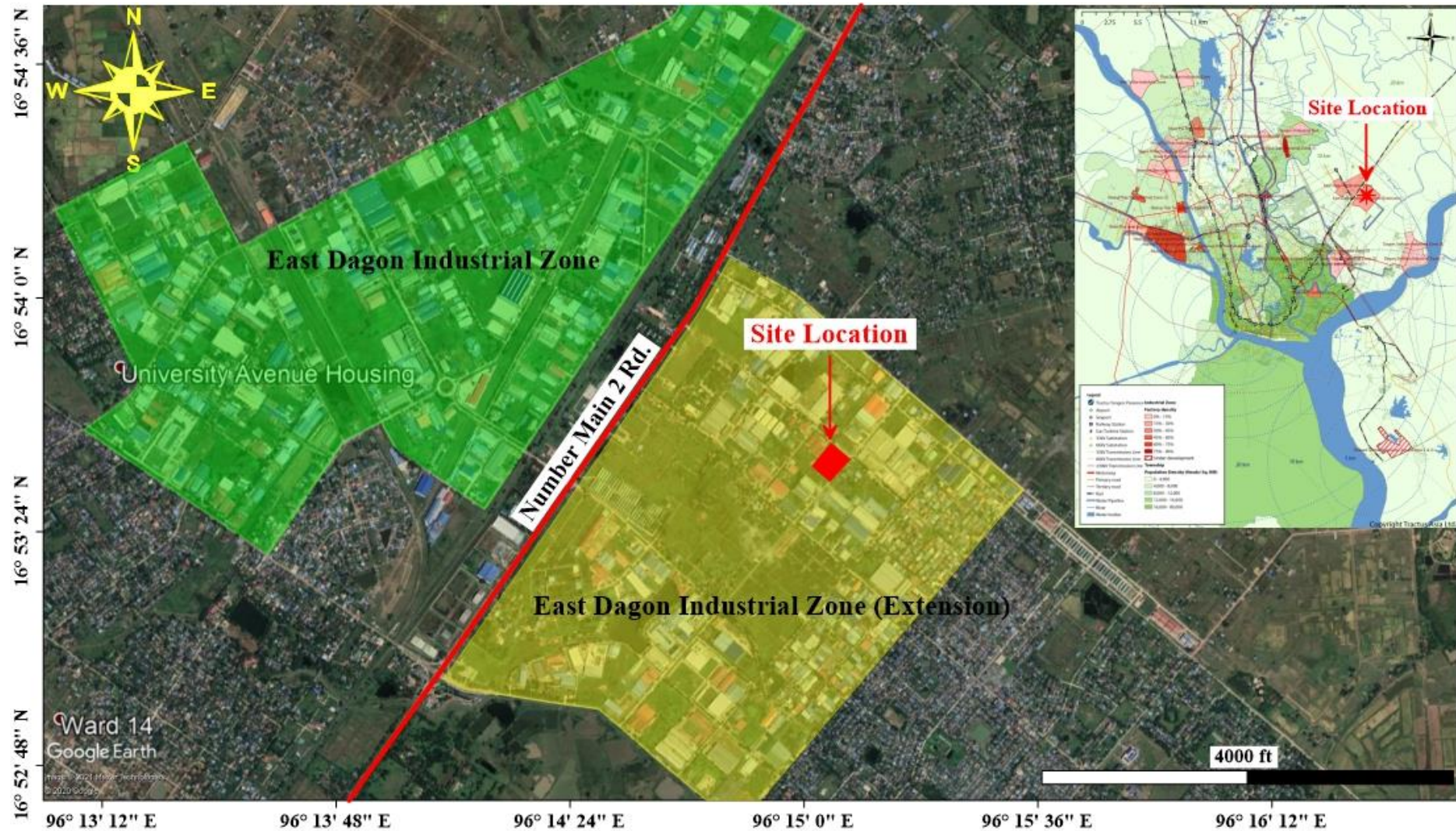


Figure 1-1 Location Map

Initial Environmental Examination

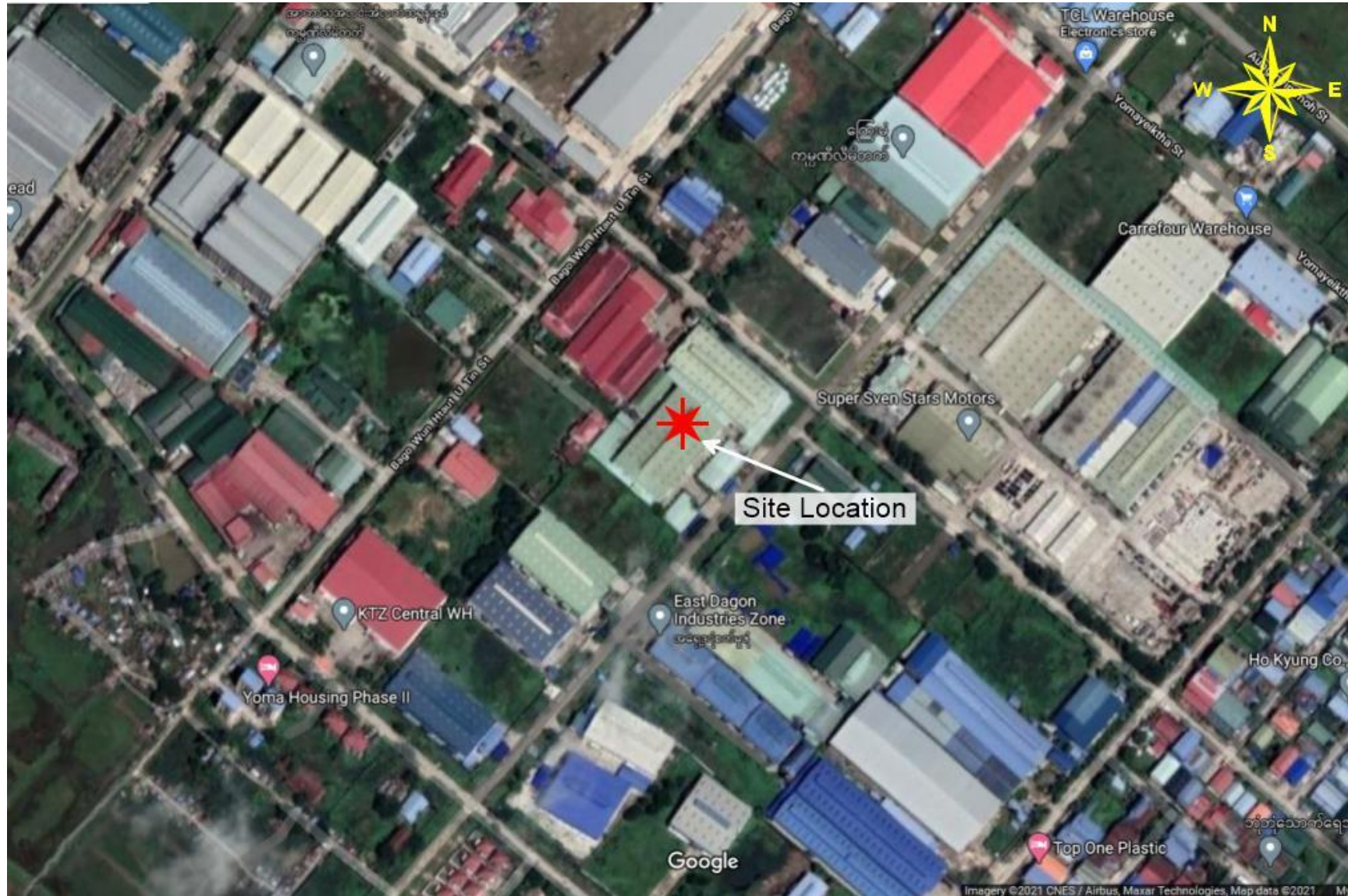


Figure 1-2 Adjacent Location Map



Figure 1-3 Factory Layout Drawing

2. PROJECT DESCRIPTION

2.1. PRODUCTION PROCESS

Cutting-Making-Packaging (CMP) is a production system in which raw materials including fixtures and chemicals are imported and then processed into finished product, packaged and exported. The CMP system is a form of production on consignment in which the main raw materials (fabrics, leather, suede etc.) are provided by overseas buyers and imported free of charge, then cut, sewn and packed in the domestic factories, after which all of the finished products are exported". The operation of shoe factories with CMP system includes production costs covering wages, electricity and diesel, transportation, communication, factory and office rental, maintenance and repair of sewing machines, and administrative expenses. The manufacturing process for shoes is basically the same for all types of shoes. Shoe factories around the world follow the basic steps to make a shoe. The basic shoe making steps are:

1. Cutting upper parts
2. Stitching shoe uppers
3. Lasting and assembly

Steps of production process of proposed shoe factory are described in below.

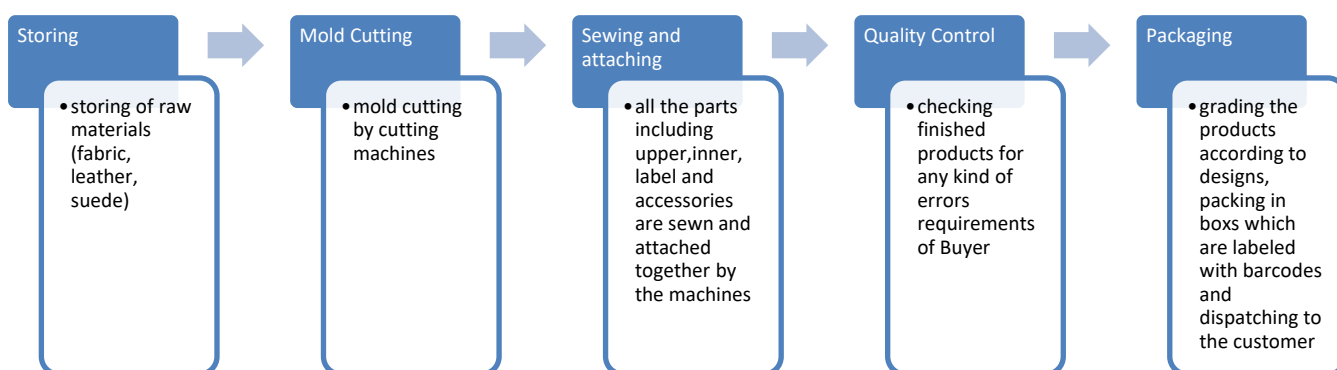


Figure 2-1 Process Flow Diagram

2.1.1. Description of Production Process

Cutting of the upper parts-Generally, the shoe production process starts with cutting the materials. Shoe parts are generally cut by steel dies in a hydraulic press. Every shoe part requires its own cutting die. Every part for every size needs its own die. These shoe parts are called the shoe pattern. The cutting dies are placed on the leather or fabric materials by hand, then the press closes to make the cuts. After the parts are cut a worker will carefully organize and stack the shoe parts. The parts will then be moved on to be processed before stitching.

Adding the labels to the shoe-The parts will be marked for alignment or have logos added by the embroidery or printing departments. Once the parts are prepared and organized, the shoe factory workers will organize the parts into kits for the stitching department

Assembly and Stitching the shoe parts-In the stitching department, the operations are divided into simple steps. Each worker is given one task to complete. For example, one worker will sew the vamp

parts to the mudguard then pass the shoe onto the next worker to attach the eye stay parts. With each operation assigned to one worker, the QC staff can quickly track any problems. The division of the operations also allows the worker to quickly master their operation.

In the stitching department, the upper parts are assembled, the lining attached, and the foam for collars and tongues are inserted. The upper is completely assembled with the reinforcing parts added and heat molded into shape. Toe caps and heel counters are formed and ready for the final assembly operations.

Shoe Lasting and Assembly Process-With the stitching complete, the upper is ready to be bonded to the outsole. Before the outsole can be attached, the upper must be “lasted.” Lasting is the operation that gives the shoe its’ final shape. The plastic, metal, or wood foot form (the “last”) is inserted into the upper. The upper is pulled tight, this sets the shape. With the upper tight to the last, the outsole unit can be permanently cemented to the upper. During this process, the shoe travels inside a heat tunnel to dry the glue before the final bonding process. The last steps are QC and packing. Final packed products will be export to China.



Warehouse



Mold Cutting Section



Sewing Section



Attaching Section



Quality Control



Packing Section

Figure 2-2 Production Photos

2.1.2. Products

The production product of the proposed factory is footwear and semi footwear. The estimated production amounts are from 1,330,000 to 2,832,368 pair between year 1 and year 10 operation period and the final products are exported to China. For the estimation of the production amount per year is shown in the following Table 2-1.

Table 2-1 Annual Production Rate

No.	Particulars	Unit	Year-1	Year-2	Year-3	Year-4	Year-5 to 10
1.	Sandal(Men's & Women's)(Leather/suede)	Pair	150,000	240,000	264,000	290,400	319,440
2.	Long Boot(Men's & Women's)(Leather/suede)	Pair	130,000	208,000	228,800	251,680	276,848
3.	Casual(Men's & Women's)(Leather/suede)	Pair	290,000	464,000	510,400	561,440	617,584
4.	Short boot(Men's & Women's)(Leather/suede)	Pair	150,000	240,000	264,000	290,400	319,440
5.	Dress(Men's & Women's)(Leather/suede)	Pair	180,000	288,000	316,800	348,480	383,328
6.	Children(Leather/suede)	Pair	180,000	288,000	316,800	348,480	383,328
7.	Semi Products	Pair	250,000	400,000	440,000	484,000	532,400
	Total		1,330,000	2,128,000	2,340,800	2,574,880	2,832,368

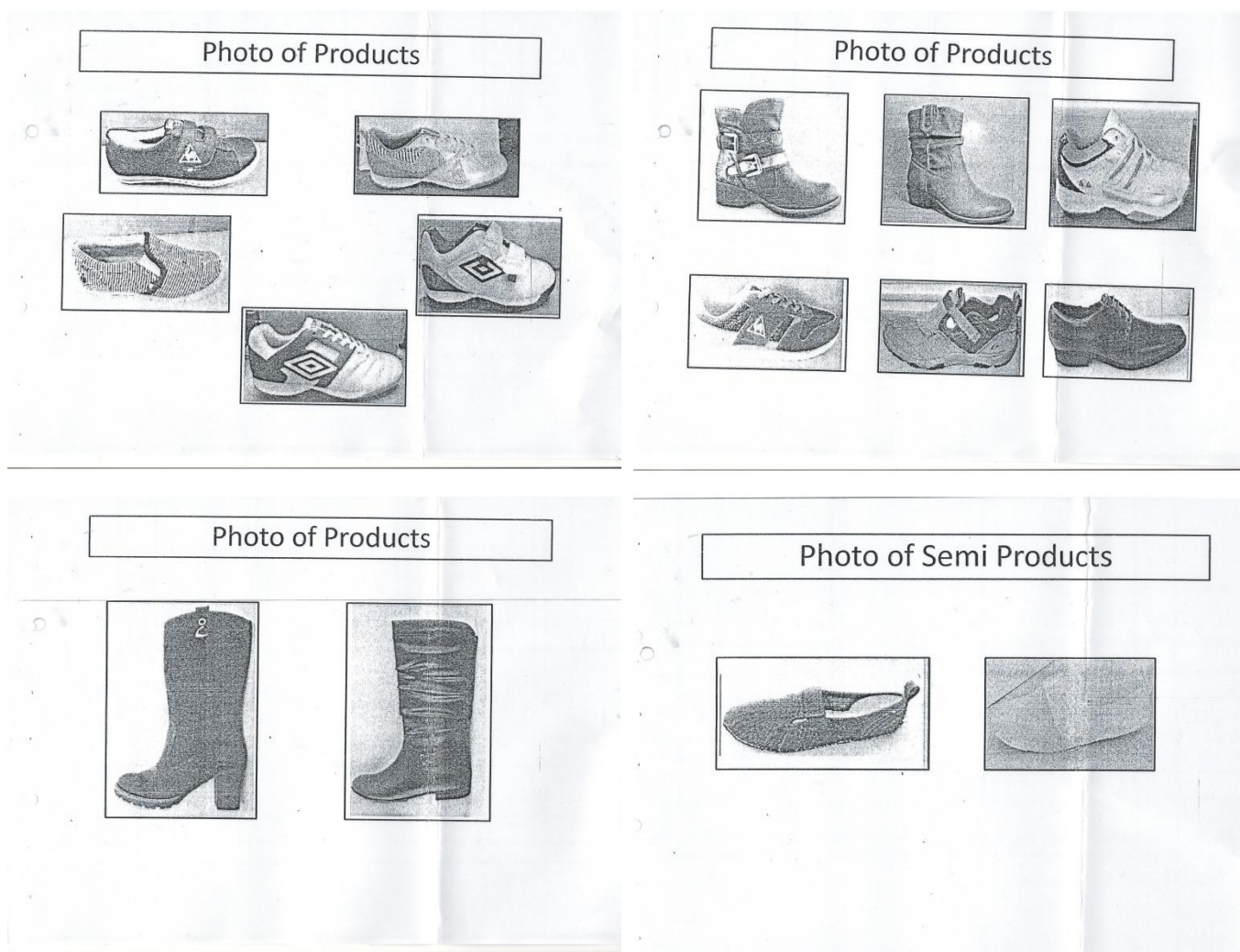


Figure 2-3 Product Photos

2.2. UTILITIES

2.2.1. Raw Material

The main Raw Materials are fabric (Lining), leather and suede etc. are imported from China and carried to the Emerald Footwear MFG Company Limited by the containers. After quantity verification, these raw materials are stored properly in specified area as per their varieties i.e, fabric (Lining) and leather are stored on the shelves; zipper, label and accessories are stored in open cabinets with labels. Raw materials for unit consumption and imported amount are described in Table 2-2. Moreover, lubricants, paint and glue are also imported and they are stored in designated area called as chemical room. The material safety data sheets of chemical are attached with this report.



Figure 2-4 Raw Materials and Chemical Storage Photos

Table 2-2 List of Annual Raw Materials

No.	Particulars	Unit	Year-1	Year-2	Year-3	Year-4	Year-5
Raw Materials for Sandal (Leather/Suede)							
1.	Leather or Suede	Sqf	238,500	381,600	419,760	461,736	507,910
2.	Fabric (Lining)	Sqf	88,500	141,600	155,760	171,336	188,470
3.	Rubberion Combination Sold	Prs	150,000	240,000	264,000	290,400	319,440
4.	Salpa Welt	Prs	150,000	240,000	264,000	290,400	319,440
5.	Truck Board + Texon + Shank	Prs	150,000	240,000	264,000	290,400	319,440
6.	EVA Foot bed or Latex Form or EVA Shee	Prs	150,000	240,000	264,000	290,400	319,440
7.	Hot Melt,Tape	Prs	150,000	240,000	264,000	290,400	319,440

No.	Particulars	Unit	Year-1	Year-2	Year-3	Year-4	Year-5
8.	Trim	Prs	150,000	240,000	264,000	290,400	319,440
9.	Zipper	Prs	150,000	240,000	264,000	290,400	319,440
10.	Eyelets	Prs	150,000	240,000	264,000	290,400	319,440
11.	Shoe Lace	Prs	150,000	240,000	264,000	290,400	319,440
12.	Webbing	Prs	150,000	240,000	264,000	290,400	319,440
13.	Buckles	Prs	150,000	240,000	264,000	290,400	319,440
14.	Gore	Prs	150,000	240,000	264,000	290,400	290,400
15.	Thread	m	1,200,000	1,920,000	2,112,000	2,323,200	2,555,520
16.	Inner Box	pcs	150,000	240,000	264,000	290,400	319,440
17.	Oulter Carton(12 pari packed)	pcs	12,000	19,200	21,120	23,232	25,555
18.	Sesling Tape	Yds	1,500	2,400	2,640	2,904	3,194
19.	Tissue Paper	pcs	300,000	480,000	528,000	580,800	638,880
20.	Stuffed Paper	pcs	900,000	1,440,000	1,584,000	1,742,400	1,916,640
21.	Micro Pack	pcs	150,000	240,000	264,000	290,400	319,440
22.	UPC Label	pcs	150,000	240,000	264,000	290,400	319,440
23.	Carton Label	pcs	150,000	240,000	264,000	290,400	319,440
Raw Material for Long Boot(Leather/Suede)							
1.	Leather or Suede	Sqf	946,400	1,514,240	1,665,664	1,832,230	2,015,453
2.	Fabric (Lining)	Sqf	816,400	1,306,240	1,436,864	1,580,550	1,738,605
3.	Rubberion Combination Sold	Prs	130,000	208,000	228,800	251,680	276,848
4.	Salpa Welt	Prs	130,000	208,000	228,800	251,680	276,848
5.	Truck Board + Texon + Shank	Prs	130,000	208,000	228,800	251,680	276,848
6.	EVA Foot bed or Latex Form or EVA Shee	Prs	130,000	208,000	228,800	251,680	276,848
7.	Hot Melt,Tape	Prs	130,000	208,000	228,800	251,680	276,848
8.	Trim	Prs	130,000	208,000	228,800	251,680	276,848
9.	Zipper	Prs	130,000	208,000	228,800	251,680	276,848
10.	Eyelets	Prs	130,000	208,000	228,800	251,680	276,848

No.	Particulars	Unit	Year-1	Year-2	Year-3	Year-4	Year-5
11.	Shoe Lace	Prs	130,000	208,000	228,800	251,680	276,848
12.	Webbing	Prs	130,000	208,000	228,800	251,680	276,848
13.	Buckles	Prs	130,000	208,000	228,800	251,680	276,848
14.	Gore	Prs	130,000	208,000	228,800	251,680	276,848
15.	Thread	m	2,600,000	4,160,000	4,576,000	5,033,600	5,536,960
16.	Inner Box	pcs	130,000	208,000	228,800	251,680	276,848
17.	Oulter Carton(12 pari packed)	pcs	10,400	16,640	28,304	20,134	22,148
18.	Sesling Tape	Yds	1,300	2,080	2,288	2,517	2,768
19.	Tissue Paper	pcs	260,000	416,000	457,600	503,360	553,696
20.	Stuffed Paper	pcs	780,000	1,248,000	1,372,800	1,510,080	1,661,088
21.	Micro Pack	pcs	130,000	208,000	228,800	251,680	276,848
22.	UPC Label	pcs	130,000	208,000	228,800	251,680	276,848
23.	Carton Label	pcs	130,000	208,000	228,800	251,680	276,848
Raw Material for Short Boot(Leather/Suede)							
1.	Leather or Suede	Sqf	748,500	1,197,600	1,317,360	1,449,096	1,594,006
2.	Fabric (Lining)	Sqf	598,500	957,600	1,053,360	1,158,696	1,274,566
3.	Rubberion Combination Sold	Prs	150,000	240,000	264,000	290,400	319,440
4.	Salpa Welt	Prs	150,000	240,000	264,000	290,400	319,440
5.	Truck Board + Texon + Shank	Prs	150,000	240,000	264,000	290,400	319,440
6.	EVA Foot bed or Latex Form or EVA Shee	Prs	150,000	240,000	264,000	290,400	319,440
7.	Hot Melt,Tape	Prs	150,000	240,000	264,000	290,400	319,440
8.	Trim	Prs	150,000	240,000	264,000	290,400	319,440
9.	Zipper	Prs	150,000	240,000	264,000	290,400	319,440
10.	Eyelets	Prs	150,000	240,000	264,000	290,400	319,440
11.	Shoe Lace	Prs	150,000	240,000	264,000	290,400	319,440
12.	Webbing	Prs	150,000	240,000	264,000	290,400	319,440
13.	Buckles	Prs	150,000	240,000	264,000	290,400	319,440

No.	Particulars	Unit	Year-1	Year-2	Year-3	Year-4	Year-5
14.	Gore	Prs	150,000	240,000	264,000	290,400	319,440
15.	Thread	m	2,100,000	3,360,000	3,696,000	4,065,600	4,472,160
16.	Inner Box	pcs	150,000	240,000	264,000	290,400	319,440
17.	Oulter Carton(12 pari packed)	pcs	12,000	19,200	21,120	23,232	25,555
18.	Sesling Tape	Yds	1,500	2,400	2,640	2,904	3,194
19.	Tissue Paper	pcs	300,000	480,000	528,000	580,800	638,880
20.	Stuffed Paper	pcs	900,000	1,440,000	1,584,000	1,742,400	1,916,640
21.	Micro Pack	pcs	150,000	240,000	264,000	290,400	319,440
22.	UPC Label	pcs	150,000	240,000	264,000	290,400	319,440
23.	Carton Label	pcs	150,000	240,000	264,000	290,400	319,440
Raw Material for Casual(Leather/Suede)							
1.	Leather or Suede	Sqf	748,200	1,197,120	1,316,832	1,448,515	1,593,367
2.	Fabric (Lining)	Sqf	342,200	547,520	602,272	662,499	728,749
3.	Rubberion Combination Sold	Prs	290,000	464,000	510,400	561,440	617,584
4.	Salpa Welt	Prs	290,000	464,000	510,400	561,440	617,584
5.	Truck Board + Texon + Shank	Prs	290,000	464,000	510,400	561,440	617,584
6.	EVA Foot bed or Latex Form or EVA Shee	Prs	290,000	464,000	510,400	561,440	617,584
7.	Hot Melt,Tape	Prs	290,000	464,000	510,400	561,440	617,584
8.	Trim	Prs	290,000	464,000	510,400	561,440	617,584
9.	Zipper	Prs	290,000	464,000	510,400	561,440	617,584
10.	Eyelets	Prs	290,000	464,000	510,400	561,440	617,584
11.	Shoe Lace	Prs	290,000	464,000	510,400	561,440	617,584
12.	Webbing	Prs	290,000	464,000	510,400	561,440	617,584
13.	Buckles	Prs	290,000	464,000	510,400	561,440	617,584
14.	Gore	Prs	290,000	464,000	510,400	561,440	617,584
15.	Thread	m	3,480,000	5,568,000	6,124,800	6,737,280	7,411,008
16.	Inner Box	pcs	290,000	464,000	510,400	561,440	617,584

No.	Particulars	Unit	Year-1	Year-2	Year-3	Year-4	Year-5
17.	Oulter Carton(12 pari packed)	pcs	23,200	37,120	40,832	44,915	49,407
18.	Sesling Tape	Yds	2,900	4,640	5,104	5,614	6,176
19.	Tissue Paper	pcs	580,000	928,000	1,020,800	1,115,880	1,235,168
20.	Stuffed Paper	pcs	1,740,000	2,784,000	3,062,400	3,368,640	3,705,504
21.	Micro Pack	pcs	290,000	464,000	510,400	561,440	617,584
22.	UPC Label	pcs	290,000	464,000	510,400	561,440	617,584
23.	Carton Label	pcs	290,000	464,000	510,400	561,440	617,584
Raw Material for Dress(Leather/Suede)							
1.	Leather or Suede	Sqf	432,000	691,200	760,320	836,352	919,987
2.	Fabric (Lining)	Sqf	212,400	339,840	373,824	411,206	452,327
3.	Rubberion Combination Sold	Prs	180,000	288,000	316,800	348,480	383,328
4.	Salpa Welt	Prs	180,000	288,000	316,800	348,480	383,328
5.	Truck Board + Texon + Shank	Prs	180,000	288,000	316,800	348,480	383,328
6.	EVA Foot bed or Latex Form or EVA Shee	Prs	180,000	288,000	316,800	348,480	383,328
7.	Hot Melt,Tape	Prs	180,000	288,000	316,800	348,480	383,328
8.	Trim	Prs	180,000	288,000	316,800	348,480	383,328
9.	Zipper	Prs	180,000	288,000	316,800	348,480	383,328
10.	Eyelets	Prs	180,000	288,000	316,800	348,480	383,328
11.	Shoe Lace	Prs	180,000	288,000	316,800	348,480	383,328
12.	Webbing	Prs	180,000	288,000	316,800	348,480	383,328
13.	Buckles	Prs	180,000	288,000	316,800	348,480	383,328
14.	Gore	Prs	180,000	288,000	316,800	348,480	383,328
15.	Thread	m	2,160,000	3,456,000	3,801,600	4,181,760	4,599,936
16.	Inner Box	pcs	180,000	288,000	316,800	348,480	383,328
17.	Oulter Carton(12 pari packed)	pcs	14,400	23,040	25,344	27,878	30,666
18.	Sesling Tape	Yds	1,800	2,880	3,168	3,485	3,833

No.	Particulars	Unit	Year-1	Year-2	Year-3	Year-4	Year-5
19.	Tissue Paper	pcs	360,000	576,000	633,600	696,960	766,656
20.	Stuffed Paper	pcs	1,080,000	1,728,000	1,900,800	2,090,880	2,299,968
21.	Micro Pack	pcs	180,000	288,000	316,800	348,480	383,328
22.	UPC Label	pcs	180,000	288,000	316,800	348,480	383,328
23.	Carton Label	pcs	180,000	288,000	316,800	348,480	383,328
Raw Material for Children(Leather/Suede)							
1.	Leather or Suede	Sqf	324,000	518,400	570,240	627,264	689,990
2.	Fabric (Lining)	Sqf	144,000	230,400	253,440	278,784	306,662
3.	Rubberion Combination Sold	Prs	180,000	288,000	316,800	348,480	383,328
4.	Salpa Welt	Prs	180,000	288,000	316,800	348,480	383,328
5.	Truck Board + Texon + Shank	Prs	180,000	288,000	316,800	348,480	383,328
6.	EVA Foot bed or Latex Form or EVA Shee	Prs	180,000	288,000	316,800	348,480	383,328
7.	Hot Melt,Tape	Prs	180,000	288,000	316,800	348,480	383,328
8.	Trim	Prs	180,000	288,000	316,800	348,480	383,328
9.	Zipper	Prs	180,000	288,000	316,800	348,480	383,328
10.	Eyelets	Prs	180,000	288,000	316,800	348,480	383,328
11.	Shoe Lace	Prs	180,000	288,000	316,800	348,480	383,328
12.	Webbing	Prs	180,000	288,000	316,800	348,480	383,328
13.	Buckles	Prs	180,000	288,000	316,800	348,480	383,328
14.	Gore	Prs	180,000	288,000	316,800	348,480	383,328
15.	Thread	m	1,800,000	2,880,000	3,168,000	3,484,800	3,833,280
16.	Inner Box	pcs	180,000	288,000	316,800	348,480	383,328
17.	Oulter Carton(12 pari packed)	pcs	10,800	17,280	19,008	20,909	23,000
18.	Sesling Tape	Yds	1,800	2,880	3,168	3,485	3,833
19.	Tissue Paper	pcs	360,000	576,000	633,600	696,960	766,656
20.	Stuffed Paper	pcs	1,080,000	1,728,000	1,900,800	2,090,880	2,299,968
21.	Micro Pack	pcs	180,000	288,000	316,800	348,480	383,328

No.	Particulars	Unit	Year-1	Year-2	Year-3	Year-4	Year-5
22.	UPC Label	pcs	180,000	288,000	316,800	348,480	383,328
23.	Carton Label	pcs	180,000	288,000	316,800	348,480	383,328
Raw Material for Semi(Leather/Suede)							
1.	Leather or Suede	Sqf	450,000	720,000	792,000	871,200	958,320
2.	Fabric (Lining)	Sqf	200,000	320,000	352,000	387,200	425,920
3.	Rubberion Combination Sold	Prs	250,000	400,000	440,000	484,000	532,400
4.	Salpa Welt	Prs	250,000	400,000	440,000	484,000	532,400
5.	Truck Board + Texon + Shank	Prs	250,000	400,000	440,000	484,000	532,400
6.	EVA Foot bed or Latex Form or EVA Shee	Prs	250,000	400,000	440,000	484,000	532,400
7.	Hot Melt,Tape	Prs	250,000	400,000	440,000	484,000	532,400
8.	Trim	Prs	250,000	400,000	440,000	484,000	532,400
9.	Zipper	Prs	250,000	400,000	440,000	484,000	532,400
10.	Eyelets	Prs	250,000	400,000	440,000	484,000	532,400
11.	Shoe Lace	Prs	250,000	400,000	440,000	484,000	532,400
12.	Webbing	Prs	250,000	400,000	440,000	484,000	532,400
13.	Buckles	Prs	250,000	400,000	440,000	484,000	532,400
14.	Gore	Prs	250,000	400,000	440,000	484,000	532,400
15.	Thread	m	2,500,000	4,000,000	4,400,000	4,840,000	5,324,000
16.	Oulter Carton (30 pari packed)	pcs	15,000	24,000	26,400	29,040	31,944

2.2.2. Machinery and Equipment

The detail use of machinery for production process is shown in the following Table 2-3.

Table 2-3 Machinery for Production Line

No	Machinery Name	Unit	Quantity
1	Single needle roller feed post bed sewing machine	Set	372
2	Double-needle roller feed post bed sewing machine	Set	86
3	Single Needle Lockstitch zigzag sewing machine	Set	56

No	Machinery Name	Unit	Quantity
4	Single Needle Cylinder bed with unison feed	Set	6
5	Auto eyeleting M/C	Set	4
6	Semi-Automatic Machine	Set	4
7	Multi-Function Leather Skiving Machine	Set	34
8	Direct drive lockstitch sewing machine with automatic thread trimmer	Set	4
9	Electronic Pattern Sewing Machine	Set	2
10	Double Needle Flatbed Sewing Machine	Set	4
11	Thermo-cementing edge folding machine	Set	6
12	Edge Trimmer	Set	2
13	Safety Finishing Blower	Set	6
14	Hot melt coating machine	Set	4
15	Cutting Machine	Set	2
16	Heel Depressing Machine	Set	2
17	Separating Thread Machine	Set	2
18	Ron Nail Detecting Tester	Set	6
19	Spray Glue Machine	Set	4
20	Small Upper Shoes Bar Pressing Machine	Set	2
21	Article waterproof pressure machine	Set	2
22	High Speed Bandkife Splitting Machine	Set	2
23	Upper molding machine	Set	2
24	Strip Pressing Machine	Set	2
25	Hydraulic Plane Cutting Press	Set	40
26	Tool Sharpner	Set	2
27	UV Ultraviolet Lighting Machine	Set	2
28	Tensile Strength Testing Machine Series	Set	2
29	Plane Chop Plate Machine	Set	2
30	Semi-Electric Stackers	Set	2
31	Generating set 350 KVA	Set	1
32	Generating set 320 KVA	Set	1
33	Negative Pressure blower	Set	20

No	Machinery Name	Unit	Quantity
34	Upper Stream Heater Machine	Set	2
35	Upper Streaming Heater Machine	Set	4
36	Seam Conditioning Machine	Set	8
37	Hot Melt Adhesive Brushing Glue Machine	Set	2
38	Hot Melt Coating Machine	Set	2
39	Toe cup moulding machine with 2 cooler and 2 heater	Set	2
40	Toe Grinding Machine	Set	2
41	Auto Conveyor Type Needle Detector	Set	2
42	Heavy-Duty Walled Sole Attachine Machine	Set	4
43	Vertical driustand sole roughing machine	Set	4
44	The X-ray machine XND5030	Set	12
45	Toe Lasting Machine	Set	2
46	Heel Forming Machine	Set	8
47	Hyrraulic Heel Seat lasting Machine	Set	6
48	Molding-Process Conveyor	Set	4
49	Mp Dong-Process Conveyor	Set	4
50	Auto Sole-Pressing Machine	Set	2
51	Flat hot press	Set	410
52	Auto sole-pressing machine	Set	2
53	Horizontal roughen grinding m/c	Set	12
54	Roughing Machine + Exhaust Fan	Set	6
55	Vertical roughing machine	Set	2
56	Roughing Machine	Set	2
57	Aerial Refrigerating Machine	Set	2
58	Silf-adjusting scriber	Set	6
59	Hydraulic last slipping machine	Set	2
60	Auto Sole-Pressing Machine	Set	2
61	Auto Sole-Pressing Machine	Set	2
62	Dust Collecting Plane Roughing Machine of Toe Cap	Set	2
63	Cementing machine	Set	16
64	Slipping Machine	Set	2

No	Machinery Name	Unit	Quantity
65	Powerful Waxing & Polishing M/C	Set	8
66	Mobile dust collector machine	Set	2
67	Oven(RC-526 b)1.5 M	Set	4
68	Powerful Waxing & Polishing M/C add Dust ALLAYMENT	Set	2
69	Self-Adjusting Scriber	Set	4
70	Manual shoe roughing and grinding stand	Set	8
71	Environment Protecting Type Water Station	Set	2
72	Airdryer	Set	2
73	Standing mackay stitch(machinery brake type)	Set	2
74	Mobile Dust Collector Machine	Set	4
75	Auto gluing and flatting machine	Set	6
76	Twice Integer Machine	Set	2
77	Unison-feed lockstitch sewing machine with automatic thread trimming	Set	2
78	Toe cup Moulding Machine	Set	6
79	Dehumidifier	Set	3
80	Two cold two hot back moulding machine	Set	2
81	Heating & Cooling Shaft Moulding Machine	Set	2
82	Electric Wire	M	5000
83	Power switch	Set	100
84	Oil-Injected Rotary Screw Compressor	Set	2
85	Machine to help face wrinkles	Set	5

2.2.3. Human Resource

Human resource required by foreign experts/technicians and local persons for administrative and production process are about between 1102 and 2252 persons from first year to ten year which are also described in Table 2-4. Currently, there are 534 employees and one shift (8 hours + overtime 2 hours) of production is running or operating. Working hour starts from 8:30 am to 5:00 pm. The lunch time is from 12:00 pm to 1:00 pm. The working day of the factory is about 6 days/week and 288 days per year. Ferries are provided to all staff and employees by the company. Foreign experts and technicians stay at dormitory of the factory and the meals for such experts are also provided.

Table 2-4 Employment List

No.	Particular	Local	Foreign
1.	Factory Manager	1	
2.	Financial Manager	1	
3.	Shipping Manager	1	
4.	Office Supervisor	1	
5.	Technician	5	
6.	Quality Control	15	
7.	Store Supervisor	3	
8.	Store Keeper	15	
9.	Driver	3	
10.	Security Staff	5	
11.	Cleaner	7	
12.	Production Supervisor	10	
13.	Skilled Workers	750	
14.	Semi-Skilled Workers	800	
15.	Un-Skilled Workers	600	
16.	Technician		20
17.	Supervisor		10
18.	Key Men(Expert)		5
Total (Local & Foreign)		2217	35
		2252	

2.2.4. Water Requirement

Dagon Myothit (South) has no centralized water supply system and the factory gets water from the tube wells installed inside the factory compound. During operation, the water will be pumped from the groundwater; the water is stored in two of the water storage concrete tank (18,000 gallons). The factory also has a water storage concrete tank (6,000 gallons) for firefighting. Three pumps and distribution pipes are installed to supply water to water ventilation cooling system. The estimated water used for processes 2,400 gallons per year. By comparing daily water requirement with storage capacity of the tanks, the factory has sufficient water for daily use.

Daily drinking water requirement of propose project is about 25 numbers of 20 liters water bottles per day. Annual water consumption for the whole factory is about 50,000 gallons per year. The tube well water is treated by sedimentation tank, filters in overhead tank and lastly water treatment system including sand filter, carbon filter, water softener and reverse osmosis (RO) system before distribution through the pipe lines.



Figure 2-5 Water Supplying System

2.2.5. Electricity and Fuel Requirement

The proposed project intended to get required electricity supply form Yangon City Electricity Supply Board (YESB) and distributed by 1000 kVA of Transformer. Another source of energy 350 kVA and 320 kVA generators (ENGGA) will also be kept as the emergency generator if normal electricity supply could not provide for the proposed project. Estimated electricity usage is about 30096 units per month.

Required petrol and diesel for vehicles and generator are purchased from the nearest petrol station. Fuel requirement for proposed Emerald Footwear MFG Company Limited is about 600 liters per month and annual electricity consumption is about 361,152 units. To handle the leakage and spillage of the diesel, an interception with sand is kept under the tank.



Figure 2-6 Electricity Facilities

2.3. FACILITIES

2.3.1. Fire Hazards Protect Facility

Fire extinguishers, fire hose reels and fire hydrants are installed in the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening is also constructed with the capacity of 6,000 gallons at the proposed area. The emergency contact numbers of township and district fire services department must be printed and tagged at easily visible places for fire emergency cases. The emergency fire alarms are installed at the factory for alerting the workers in case of fire. The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases. In addition, the project proponent has plans to provide trainings on firefighting for the workers by a professional or otherwise by sending to training courses.



Figure 2-7 Firefighting System

2.3.2. Ventilation System

The factory ventilation systems consist of natural ventilation system and mechanical ventilation system. The mechanical ventilation system is provided in office room, production area, canteen and warehouse area.



Figure 2-8 Ventilation System Photo

2.3.3. Liquid Waste Control Facility

The factory plan has kitchen, canteen and toilet facilities attached in various buildings of the factory. In the kitchen, separated drainage lines are provided to flow wastewater from the activities washing and cooking, etc. And around the compound area of the project area, drainages are also provided and maintained to flow storm water (rain water and surface water). The compound area of the factory is paved with concrete and the drainages are covered and holes are there to flow the storm water. The existing drainage at the project area can be seen in Figure 2-9. Besides, the factory plan to use separate wastewater channels, septic type toilet system. Liquid waste from the dining room, canteens and toilet facilities are collected in septic tanks and the proponent will connect and cooperate with YCDC to be carried out for disposing of these septic tank wastes. To mitigate the impact on water, the drainages around the compound area of the factory have to maintain and clean regularly. Spillage and leakages of oil and grease should also be minimized.



Figure 2-9 Drainage System

2.3.4. Solid Waste Management Facility

The factory provides separate garbage bins at each building. All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste bin: non-

hazardous waste, hazardous waste, re-usable waste and final wastes will be disposed by using YCDC's service. The amount of disposed industrial waste is about 0.17 tons/day, 5 tons/month and 60 tons/yr.



Figure 2-10 Waste Storage Photo

3. PROJECT PROPONENT PROFILE

Initial Environmental Examination (IEE) is required for ensuring sustainable development. It should not affect the surrounding environment adversely. The management plan presented in this chapter needs to be implemented by the proposed expansion of Emerald Footwear MFG Company Limited. The Initial Environmental Examination (IEE) aims at controlling pollution at source with available and affordable technology followed by treatment measures. Waste minimization and waste recycling measures are emphasized. In addition to the industry specific control measures, the proposed industry should adopt following guidelines.

This is the information of project proponent from the MIC's registration that is describing in below. The estimated authorized capital investment is 1.32 Million US Dollar. Organization chart of Emerald Footwear MFG Company Limited is presented in Figure 3-1.

Table 3-1 Salient Features of the Project

Type of Proposed Business	Manufacturing of all kind of footwear and semi footwear products on CMP basis
Type of investment	100% foreign investment
Type of Share	Ordinary Share
Type of land	Industrial Land
Total land area	1.1367 acres (4600 Sqm)
Total building	One storey building(36 m x 80 m) Two storey building(12 m x 32 m)
Land lease year	10 years
Construction period	1 year
Address	Plot No. (37), Myay Taing Block No.144, Industrial Zone, Dagon Myo Thit (South) Township, Yangon Region.
Contact person	Hsueh Chung Kun 09-453080976 emeraldmyanmar2019@gmail.com

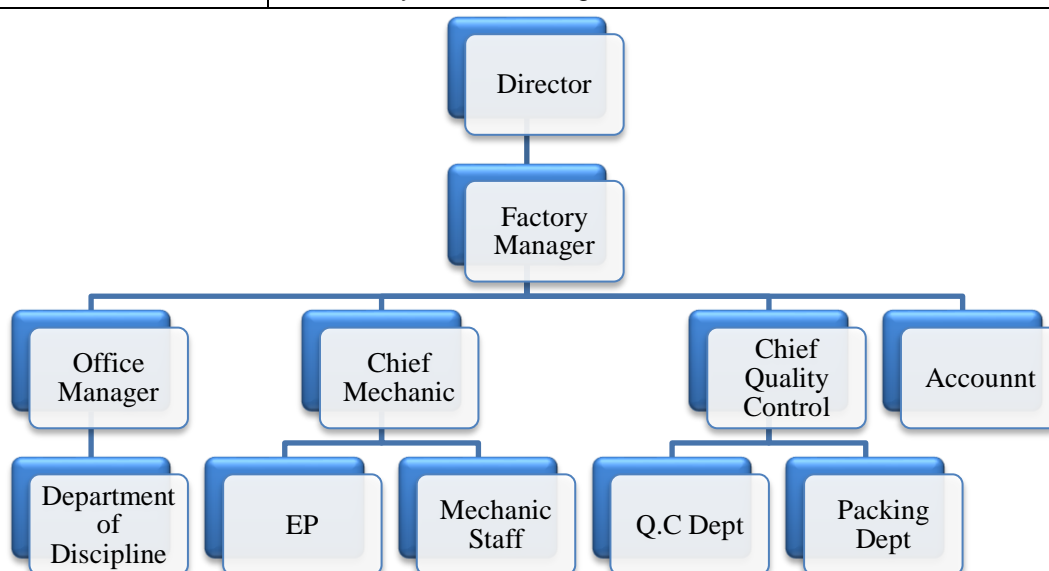


Figure 3-1 Organization Chart of Emerald Footwear MFG Company Limited

4. ENVIRONMENTAL CONSULTANT PROFILE

4.1. SCOPE OF IEE STUDY

The IEE study firstly established baseline environmental setting within 100 meters of the project area, including existing conditions of air quality, water quality, noise, weather and local climate, waste, landscape and social assessment. The field studies carried out by Myanwei Environmental Solutions Co., Ltd. conducted field survey, assessment activities, and prepared the report.

A reconnaissance study performed on the proposed project site and baseline environmental data collected from possible sources using the appropriate measuring devices. Data interpretation and analysis based on those collected data for the present and potential future conditions. Suitable measures proposed for the impacts to reduce to acceptable ones.

4.1.1. The specific objectives of the IEE study are as follows:

- To conduct preliminary examination of the environmental consequences of the project
- To describe the existing environmental condition of the proposed project site
- To collect detailed information about used of process, technology, equipment and machinery for proposed project
- To assess the potential environmental impacts of the proposed project
- To develop environmental management plan (EMP) with site specific environmental mitigation measures and monitoring standards guidelines for the proposed project
- To carry our public consultants to address any issues in concern with implementation of this project

4.2. IDENTIFICATION OF IEE STUDY TEAM

MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED prepares the Initial Environmental Examination (IEE) with the Environmental Management Plan (EMP) for the proposed project. The environmental studies carried out by the Environmental study team and the following is a summary of team member's responsibilities during the study period.

Myanwei Environmental Solutions Company Limited	No. 36-38, 9 th floor (A), Grand Myay Nu Condo, Myay Nu Street, Sanchaung Township, and Yangon, Myanmar.	01-501221 env@myanweiconsulting.com www.myanwweiconsulting.com.
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Table 4-1 Member of IEE study team

Name	Qualification	Responsibility
Myanwei Environmental Solutions Co., Ltd.	Transition Consultant Registration Certificate No. 0069	EIA Organization No. 36-38, 9th floor (A), Grand Myay Nu Condo, Myay Nu Street, Sanchaung Township, Yangon, Myanmar. Website: www.myanwweiconsulting.com Ph: 01-501221

Name	Qualification	Responsibility
Myanwei Environmental Solutions Co., Ltd.	Transition Consultant Registration Certificate No. 0069	EIA Organization No. 36-38, 9th floor (A), Grand Myay Nu Condo, Myay Nu Street, Sanchaung Township, Yangon, Myanmar. Website: www.myanwweiconsulting.com Ph: 01-501221
Mr. Lin Htet Sein	MSc (Regional Geology) BSc (Hons) Geology Dip in Environmental Science Certificate in Environmental & Social Assessment Certificate in Environmental Stainability TCR No. 0048	Project Director, Environmental Consultant, Project Management
Dr. Hein Lynn Aung	M.B, B.S (Yangon), Business Management (International Collage of Management Sydney, Australia)	Project Director, Public Health Consultant, Project Management
Ms. Wah Wah Zaw	B.E Material and Metallurgy Engineering Diploma in Environmental Planning and Management M.S Environmental Planning and Management	Senior Environmental Consultant, Social and Environmental Research, Quality control, Environmental Planning and Management
Ms. Khin Thu Zar Myint	B.E(Materials and Metallurgy) Dip in Environmental Planning and Management	Senior Environmental Consultant, Social Research, Public consultation, Social Economic Investigation
Mr. Kyaw Win Han	B.E. Chemical Engineering B. Tech Chemical Engineering	Junior Environmental Consultant, Team Leader of Baseline Survey, Monitoring Measure
Mr. Aung Kyaw Moe	B.E. Chemical Engineering B. Tech Chemical Engineering	Junior Environmental Consultant, Monitoring measure, Document Administration
Mr. Saw Yan Naung	B.E. Chemical Engineering B. Tech Chemical Engineering	Junior Environmental Consultant, Monitoring Measure, Document Administration
Mr. Myat Ko Ko	B.Sc (Hons) Geology M.Sc. Geology (Economic and Mining) Certificate of Environment Management Certificate of Geotechnical Engineering (Myanmar Geoscience Society)	Junior Environmental Consultant, Monitoring Measure, Document Administration
Mr. Kaung Sett Lwin	B.Sc (Hons) Geology Certificate of Geotechnical Engineering (Myanmar Geoscience Society)	Junior Environmental Consultant, Monitoring Measure, Document Administration

THE REPUBLIC OF THE UNION OF MYANMAR
Ministry of Natural Resources and Environmental Conservation
Environmental Conservation Department

CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION
(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. **10068** Date **24 MAY 2019**

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the organization under Environmental Impact Assessment Procedure, Notification No. 616/2015.
(ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၆၁၆/၂၀၁၅ အရ သယ်စာတန့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို ထုတ်ပေးလိုက်သည်။)

(a) Name of Organization (အဖွဲ့အစည်းအမည်)	Myanwei Consulting Co., Ltd.
(b) Name of the representative in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်အမည်)	U Nyan Lynn Aung
(c) Citizenship of the representative in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏နိုင်ငံသား)	Myanmar
(d) Identity Card /Passport Number of the representative person in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏ မှတ်ပုံတင်/ နိုင်ငံကူးလက်မှတ် အမှတ်)	12/Sakhana(N)056196
(e) Address of organization (ဆက်သွယ်ရန်လိပ်စာ)	No. 28, Myay nu street, Sanchaung Township, Yangon, Myanmar. Mobile phone: 09440251888 E mail: ceo@myanweiconsulting.com
(f) Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Organization
(g) Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 December 2019



 Director General
 Environmental Conservation Department
 Ministry of Natural Resources and Environmental Conservation

- Areas of Expertise Permitted**
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)
1. Facilitation of meeting,
 2. Land use,
 3. Legal analysis,
 4. Geology and soil,
 5. Occupational Safety and Health,
 6. Public Health





REPUBLIC OF THE UNION OF MYANMAR
Ministry of Natural Resources and Environmental Conservation
CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION
 (ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)



No. 0048 Date 07.08.2017

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the person under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၅၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိခိုက်သိမ်းစားမှုခြင်းကာလအတွင်း ဤအထောက်အထားလက်မှတ်ကို လူပုဂ္ဂိုလ်အားထုတ်ပေးလိုက်သည်။)

(a) Name of Consultant (အကြံပေးပုဂ္ဂိုလ်အမည်)	U Lin Htet Sein
(b) Citizenship (နိုင်ငံသား)	Myanmar
(c) Identity Card / Passport Number (မှတ်ပုံတင်/နိုင်ငံကူးလက်မှတ် အမှတ်)	7/ Tha Ka Na (N) 101377
(d) Address (ဆက်သွယ်ရန်လိပ်စာ)	No.54, Room No.704, Waizayantar Tower, Waizayantar Road, Thingangyun Township, Yangon. lin.tbs@gmail.com , 09 421137569
(e) Organization (အဖွဲ့အစည်း)	Total Business Solution Co., Ltd.
(f) Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Person
(g) Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 March 2018

EXTENSION
 သက်တမ်းတိုးမြှင့်ခြင်း
 The VALIDITY of this certificate is extended
 for one year from (1.4.2018) to (31.3.2019)
 ဤလက်မှတ်အား (၁-၄-၂၀၁၈) ရက်နေ့မှ (၃၁-၃-၂၀၁၉)
 ရက်နေ့အထိ တစ်နှစ်အတွင်း တိုးမြှင့်သည်။


 For Director General
 (Soe Naing, Director)
 Environmental Conservation Department


 Director General
 Environmental Conservation Department
 Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Geology and Soil

EXTENSION
 သက်တမ်းတိုးမြှင့်ခြင်း
 The VALIDITY of this certificate is extended
 for nine months from (1.4.2019) to (31.12.2019)
 ဤလက်မှတ်အား (၁-၄-၂၀၁၉) ရက်နေ့မှ (၃၁-၁၂-၂၀၁၉)
 ရက်နေ့အထိ (၉)လသက်တမ်း တိုးမြှင့်သည်။


 For Director General
 (Soe Naing, Director)
 Environmental Conservation Department

Figure 4-1 Consultant Registration Certificated

5. POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

This section provides a brief summary of relevant national environmental legislations established by the MONREC and overview of current local and international environmental and social policies including related international or regional convention for the proposed project.

5.1. MYANMAR REGULATORY FRAMWORK

Myanmar has 24 ministries under the Office of the President as of May 2016. The leading ministries in-charge of environmental and social considerations is the Environmental Conservation Department (ECD) of the MONREC that was reorganized Ministry of Environmental Conservation and Forestry (MOECAF) in April 2016.

5.1.1. Laws and Regulations Related to Environmental and Social Considerations

Requirements related to environmental (and social) impact management for development projects are described in Table 5-1.

Table 5-1 List of Myanmar's Law Relating to Environmental Management

Law and Regulation	Description
National Environmental Policy of Myanmar, (Notification No. 26/94 dated 5 December 1994)	To achieve harmony and balance between socioeconomic, natural resources and environment through the integration of environmental considerations into the development process enhancing the quality of the life of all its citizens.
Constitution 2008	
Section 37, (a)	The Union is the ultimate owner of all lands and all-natural resources above and below the ground, above and beneath the water and in atmosphere in the Union.
Section 37, (b)	The Union shall permit citizens rights of private property, right of inheritance, right of private initiative and patent in accord with the laws.
Section 372	The Union guarantees the right to ownership, the use of property and the right to private invention and patent in the conducting of business if it is not contrary to the provisions of this Constitution and the existing laws.
Section 45	The Union shall protect and conserve natural environment.
Section 390, (a),(b),(c),(d)	Every citizen has the duty to assist the Union in preserving and safeguarding the cultural heritage, conserving the environment, striving for the development of human resources, and protecting and preserving the public property.
Environmental Conservation Law, 30 March 2012	
Objectives	to contract a healthy and clean environmental and to conserve natural and cultural heritage for the benefit of present and future generations; to maintain the sustainable development through effective management of natural resources and to enable to promote international, regional and bilateral cooperation in the matters of environmental conversation.
Section 3	c) to enable to emerge a healthy and clean environment and to enable to conserve natural and cultural heritage for the benefit of present and future generations; (d) to reclaim ecosystems as may be possible which are starting to degenerate and disappear; (e) to enable to manage and implement for decrease and loss of natural

	resources and for enabling the sustainable use beneficially;
Provisions of Duties and Powers relating to the Environmental Conservation of the Ministry: Section 7	<p>(a) To specify categories and classes of hazardous wastes generated from the production and use of chemicals or other hazardous substances in carrying out industry, agriculture, mineral production, sanitation and other activities;</p> <p>(b) To prescribe categories of hazardous substances that may affect significantly at present or in the long run on the environment;</p> <p>(c) To promote and carry out the establishment of necessary factories and stations for the treatment of solid wastes, effluents and emissions which contain toxic and hazardous substances;</p> <p>(j) To prescribe the terms and conditions relating to effluent treatment in industrial estates and other necessary places and buildings and emissions of machines, vehicles and mechanisms;</p> <p>(m) To lay down and carry out a system of EIA and SIA as to whether or not a project or activity to be undertaken by any Government department, organization or person may cause a significant impact on the environment;</p> <p>(o) To manage to cause the polluter to compensate for environmental impact, cause to contribute fund by the organizations which obtain benefit from the natural environmental service system, cause to contribute a part of the benefit from the businesses which explore, trade and use the natural resources in environmental conservation works.</p>
Chapter VI Environmental Quality Standards: Section10	<p>The Ministry may, with the approval of the Union Government and the Committee, stipulate the following environmental quality standards:</p> <p>(a) suitable surface water quality standards in the usage in rivers, streams, canals, springs, marshes, swamps, lakes, reservoirs and other inland water sources of the public;</p> <p>(b) water quality standards for coastal and estuarine areas;</p> <p>(c) underground water quality standards;</p> <p>(d) atmospheric quality standards;</p> <p>(e) noise and vibration standards;</p> <p>(f) emissions standards;</p> <p>(g) effluent standards;</p> <p>(h) solid wastes standards;</p> <p>(i) other environmental quality standards stipulated by the Union Government.</p>
Section 14	A person causing a point source of pollution shall treat, emit, discharge and deposit the substances which cause pollution in the environment in accord with stipulated environmental quality standards.
Section 15	The owner or occupier of any business, material or place which causes a point source of pollution shall install or use an on-site facility or controlling equipment in order to monitor, control, manage, reduce or eliminate environmental pollution. If it is impracticable, it shall be arranged to dispose the wastes in accord with environmentally sound methods.
Section 16	<p>A person or organization operating business in the industrial estate or business in the SEZ or category of business stipulated by the Ministry:</p> <p>(a) is responsible to carry out by contributing the stipulated cash or kind in the relevant combined scheme for the environmental conservation including the management and treatment of waste;</p> <p>(b) shall contribute the stipulated users' charge s or management fees for the environmental conservation according to the relevant industrial estate, SEZ and business organization;</p> <p>(c) shall comply with the directives issued for environmental conservation</p>

	according to the relevant industrial estate, SEZ or business.
Section 24	The project proponent has to allow relevant governmental organization or department to inspect whether performing is conformity with the terms and condition include in prior permission, stipulated by the ministry, or not.
Section 25	The project proponent has to comply with the terms and conditions include in prior permission.
Section 29	The project proponent has to abide by the stipulations included in the rules, regulations, by-law, order, notification and procedure, which are issued by said law.
Environmental Conservation Rules, 2014	
Rules 58	The Ministry shall form the EIA Report Review Body with the experts from the relevant Government departments, organizations.
Rules 59	The Ministry may assign duty to the Department to scrutinize the report of EIA prepared and submitted by any organization or person relating to EIA and report through the EIA Report Review Body.
Rules 61	The Ministry may approve and reply on the EIA report IEE or IEE with the guidance of the Committee.
Sub-rule (a) of rule 68	The project proponent has to avoid emit, discharge or dispose the materials which can pollute to environment, or hazardous waste or hazardous material prescribed by notification in the place where directly or indirectly injure to public.
Sub-rule (b) of rule 68	The project proponent has to avoid performing to damage to ecosystem and the environment generated by said ecosystem.
Environmental Impact Assessment Procedure (December 2015)	
Objectives	<p>The project proponent has to be liable for all adverse impacts caused by doing or emitting of project owner or contractor, sub-contractor, officer, employee, representative or consultant who is appointed or hired to perform on behalf of project owner, under sub-paragraph (a) of paragraph 102.</p> <p>The project proponent has to support, after consulting with effected persons by project, relevant government organization, government department and other related persons, to resettlement and rehabilitation for livelihood until the effected persons by the project receiving the stable socio-economy which is not lower than the status in pre-project, under sub-paragraph (b) of paragraph 102</p> <p>The project proponent has to fully implement all commitments of project and conditions included in IEE. Moreover, the project proponent has to be liable for contractor and sub-contractor who perform on behalf of him/her have to fully abide by the relevant laws, rules, this procedure, IEE and all conditions, under paragraph 103.</p> <p>The project proponent has to be liable and fully & effectively implement all requirements included in ECC, relevant laws and rules, this procedure and standards under rule 104.</p> <p>The project proponent has to inform the completed information, after specifying the adverse impacts caused by the project, from time to time, under paragraph 105.</p> <p>The project proponent has to continuously monitor all adverse impacts in the pre-construction phrase, construction phrase, operation phrase, suspension phrase, closure phrase and post-closure phrase, moreover has to implement the IEE with abiding the all conditions included in ECC, relevant laws & rules and this procedure, under paragraph 106.</p> <p>The project proponent has to submit, as soon as possible, the failures of his or her responsibility, other implementation, ECC or IEE. If dangerous</p>

	<p>impact caused by this failure or failure should be known by the Ministry the project proponent has to submit within 24 hours and other than this situation has to submit within 7 days from knowing it, under paragraph 107.</p> <p>The project proponent has to submit the monitoring report dually or prescribed time by Ministry in line with the schedule of IEE, under paragraph 108.</p> <p>The project proponent has to prepare the monitoring report in accord with the rule 109.</p> <p>The project proponent has to show this monitoring report in public place such as library, hall and website and office of project for the purpose to know this report by public within 10 days from the date which the report is submitted to the Ministry. Moreover, has to give the copy of this report, by email or other way which way agreed with the asked person, to any asked person or organization, under paragraph 110.</p> <p>The project proponent has to allow inspector to enter and inspect in working time and if it is needed by Ministry has to allow inspector to enter and inspect in the office and work-place of project and other work-place related to this project in any time, under paragraph 113.</p> <p>The project proponent has to allow inspector to immediately enter and inspect in any time if it is emergency or failure to implement the requirements related to social or environment or caused to it, under paragraph 115.</p> <p>The project proponent has to allow inspector to inspect the contractor and sub-contractor who implement on behalf of project, under paragraph 117.</p>
Screening: Section 23	<p>a) The project proponent shall submit the Project Proposal to the Ministry for Screening.</p> <p>b) The Ministry will send the Project Proposal to the Environmental Conservation Department to determine the need for environmental assessment.</p> <p>c) Following the preliminary Screening and verification that the Project Proposal contains all required documents and related materials, subject to Articles 8, 9, 10, 11, 26 and 27 the Department shall make a determination in accordance with Annex 1 – Categorization of Economic Activities for Assessment Purposes ‘, taking into account Article 25 and the additional factors listed in Article 28 in order to designate the Project as one of the following, and then submit it to the Ministry:</p> <p>i) An EIA Type Project, or</p> <p>ii) An IEE Type Project, or</p> <p>iii) A Non IEE or EIA Type, and therefore not required to</p>
National Environmental Quality (Emission) Guidelines (NEQG) (December 2015)	
Objectives	To provide the basis for regulation and control of noise and vibration, air emissions, and liquid discharges from various sources in order to prevent pollution for purposes of protection of human and ecosystem health.
National Environmental Policy of Myanmar (2019)	
National Environmental Policy Vision & mission	<p>Vision</p> <p>A clean environment, with healthy and functioning ecosystem, that ensures includes development and wellbeing for all people in Myanmar.</p> <p>Mission</p> <p>To establish national environmental policy principle for guiding environmental protection and sustainable development and for mainstreaming environmental consideration into all policies, laws, regulation, plans, strategic, programmes and projects in Myanmar.</p>

Foreign Investment Law, 2012	
Section 8	<p>(a) To support the primary objectives of the national economic development plan, and for businesses that cannot yet be run by the State and citizens or businesses that have insufficient funds and technology.</p> <p>(b) Development of employment activities</p> <p>(l) Protection and conservation of the environment.</p> <p>(q) Appearing the required modern services for the Union and citizens.</p>
Section 17	<p>(a) To abide by the existing laws of the Republic of the Union of Myanmar.</p> <p>(b) To carry out the business by forming a company under the existing laws of Myanmar by the investor.</p> <p>(h) To carry out not to cause environmental pollution or damage in accord with existing laws in respect of investment business.</p> <p>(k) To carry out the systematic transfer of high technology relating to the business which are carried out by the investor to the relevant Basis, departments or organizations in accord with the contract.</p>
Foreign Investment Rule, 2013	
Rule 54	<p>The promoter or investor shall:</p> <p>(a) comply with Environmental Protection Law in dealing with environmental protection matters related to the business;</p> <p>(b) shall carry out socially responsible investment in the interest of the Union and its people;</p> <p>(c) shall co-operate with authorities for occasional or mandatory inspection;</p> <p>(d) shall exercise due diligence to be in conformity and harmony with norms and standards prescribed by relevant Union Ministry in conducting construction of factories, workshops, buildings, and other activities;</p> <p>(e) shall enforce Safety and Health</p>
Myanmar Investment Rules, 2017	
Rule 202	The project proponent has to comply with the conditions of the permit issued by the MIC and applicable laws when making the investment
Rule 203	The project proponent has to fully assist while negotiating with the authority for settling the grievance of the local community which has been affected due to investment
Rule 206.	The project proponent has to submit the passport, expert evidence or document of degree and profile to the MIC office for approval if decide to appoint a foreigner as senior management, technician expert or consultant according to subsection (a) of section 51 of Myanmar Investment Law
Myanmar Insurance Law (1993)	<p>Section 15 - If the project proponent uses the owned vehicles the project owner has to ensure the insurance for the injured person.</p> <p>Section 16 - The project proponent has to ensure insurance to compensate for general damages because the project may cause damages to the environment and injury to the public.</p>
Payment of Wages Law (2016)	
Section 3 & 4	The project proponent has to pay the wages in accord with section 3 and 4 of said law,
Section 5	The project proponent has to submit with the agreements of employees & reasonable ground to the department if it is difficult to pay because of force majeure included in a natural disaster
Section 7-13	The project proponent has to abide by the provisions of section 7 to 13 in the chapter (3) in respect of deduction from wages.

Section 14	The project proponent has to pay the overtime fees, prescribed by law, to the employees who work over working hours
Yangon City Development Committee Law (2018)	
Section (317)	The proponent shall not block the natural river channel, change the course, and disrupt the water channel, filling with soil within the city boundaries without the consent of the Committee
Section (318)	The project proponent shall not construct buildings, factories, and industries without sewage, toilet, septic tanks, and wastewater treatment system
Section (322)	The project proponent is not allowed to make activities that will produce noise pollution, water pollution, air pollution, and soil pollution to impact the environment within the city's boundaries
The Amended Law for Factories Act, 1951 (2016)	
Hygiene in Working Environment: Section 3	Mentions responsibilities of employers and manager regarding waste disposal, ventilation, extreme temperature, dust and gas generation, minimum space for each worker, lighting, portable drinking water and toilets for employees.
Safety in Working Environment: Section 4	States responsibilities of employer and manager concerning with machine guarding, personal protective equipment, housekeeping, aisles and exits, chemical storage and fire protection system to avoid accident.
The Private Industrial Enterprise Law, 1990	
Basic Principles: Section 3	Private Industrial Basis shall be conducted in accordance with the following basic principles: - (a) to enhance the higher proportion of the manufacturing value added in the gross national product and value of services, and to increase the production of the respective economic Basis which are related to the industrial enterprise; (b) to acquire modern technical know-how for raising the efficiency of industrial Basis and to establish the sale of finished goods produced by the industrial enterprise not only in the local market, but also in the foreign market; (d) to cause narrowing down of the gap between rural development and urban development by causing the development and improvement of industrial Basis; (e) to cause opening up of more employment opportunities; (f) to cause avoidance of or reduction of the use of technical know-how which cause environmental pollution; (g) to cause the use of energy in the most economical manner.
The Export and Import Law (2012)	
Objectives	The objectives of this law are as follows: a) To enable to implement the economic principles of the State successfully. b) To enable to lay down the policies relating to export and import that supports the development of the State. c) To cause the policies relating to export and import of the State and activities are to be in conformity with the international trade standards. d) To cause to be streamlined and speedy in carrying out the matters relating to export and import.

Prohibitions: Section 5	No persons shall export or import restricted, prohibited and banned goods.
Prohibitions: Section 6	Without obtaining license, no person shall export or import the specified goods which are to obtain permission.
Prohibitions: Section 5	A person who obtained any license shall not violate the conditions contained in the license.
The Prevention of Hazard from Chemical and Related Substances Law, 2013	
<p>This law was enacted with the objectives of:</p> <ol style="list-style-type: none"> To protect from being damaged the natural environment resources and being hazardous any living beings by chemical and related substances; To supervise systematically in performing the chemical and related substances business with permission for being safety; To perform the system of obtaining information and to perform widely educative and research for using the chemical and related substance systematically; To perform the sustainable development for the occupational safety, health and environmental conservation. <p>Regarding the chemical management and storage, currently, regulations governing chemicals management are divided between various Acts, mostly dating from colonial times; hence the legislation is in many respects related to the British framework. The Factory Act and the Public Health Act contain the provisions for chemicals management and storage. Some chemicals are likely to require permits.</p>	
Underground Water Act	
<p>The underground water act enacted on the date of 21st June in 1930 whereas it is expedient to conserve and protect underground sources of water supply in the Union of Burma. This act prohibits sinking of a tube for the purpose of obtaining underground water except under and in accordance with the terms of a license granted by the water officer. Township Officer or sub-divisional officer had power to close a license tube after exercising jurisdiction over the local area concerned and the expense of such closure shall be recoverable from the owner of the tube as if it were an arrear of land-revenue.</p>	
Myanmar Fire Brigade Law (2015)	
<p>The Pyidaungsu Hluttaw enacted this law by Law No.11/2015 on the date of 17th March, 2015 with the following objectives:</p> <ol style="list-style-type: none"> to take precautionary and preventive measures and loss of state own property, private property, cultural heritage and the live and property of public due to fire and other natural disasters to organize fire brigade systemically and to train the fire brigade to prevent from fire and to conduct release work when fire disaster, natural disaster, epidemic disease or any kind of certain danger occurs to educate, organize and inside extensively so as to achieve public corporation to participate if in need for national security, peace for the citizens and law and order 	
Section-8 Fire Safety Procedures	
Rule17	<p>The relevant Government Department or organization shall, for the purpose of precaution and prevention obtain the approval of the Fire Force Department before granting permission for the following cases:</p> <ol style="list-style-type: none"> Constructing three-storied and above buildings market and condominium buildings, Operating hotel, motel, guest house enterprise Constructing factory, workshop, storage facilities and warehouse Operating business expose to fire hazard by using in inflammable materials or explosive materials Producing and selling fire-extinguishing apparatuses Doing transport business, public utility vehicles train, airplane, helicopter, vessel, ship, tonkin tug
Rule18	The relevant government department or organization shall obtain the

	opinion of the Fire Services Department for the purpose of fire precaution and prevention, when laying down plans for construction for town, village and downtown or village development plans
The Electricity Law (2014)	
In 2014, the new Electricity Law, a comprehensive piece of legislation covering licensing, a new regulatory commission, standards, inspection, tariff, and restrictions, replaced the Electricity Law of 1984. The Electricity Law divides projects into “small” (up to 10 MW), “medium” (between 10 MW to 30 MW) and large (upwards of 30 MW); the states and regions can issue permits for small and medium power plants. In case these plants are not connected to the national grid, the Union Government Ministry is not the primary authority involved. The authorities have a legal right to use land for the purpose of power plants under the Electricity Law, and have the right to expand and maintain their facilities. The law also provides that the authorities can build transmission lines in accordance with existing laws.	
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
The Pyidaungsu Hluttaw hereby enacts this Law for safeguarding the right of workers or having good relationship between employers and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly.	
The Social Security Law (2012)	
The Social Security Law, enacted in 2012, was amended the Social Security Act in 1954. It stipulates the formation and implementation of social security systems.	
Section 53(a)	The employers and workers shall co-ordinate with the Social Security Board or insurance agency in respect of keeping plans for safety and health in order to prevent employment injury, contracting disease and decease owing to occupation and in addition to safety and educational work of the workers and accident at the establishment;
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
This law was enacted for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. It stipulates that employer in which more than 30 workers are employed shall form the workplace coordinating committee consisting of the representatives of workers and the representatives of employer.	
Section 23	A party, employers or worker, may complain individual dispute relating to his grievance to the Conciliation Body and if he is not satisfied with the conciliation of such body in accord with stipulated manners, may apply to the competent court in person or by the legal representative.
Section 24	The relevant Conciliation Body shall, in respect of the collective dispute known or received by the complaint of either party, employers or worker, in respect of the dispute; information sent by the Minister or the Region or State Government or any other means, carry out as follows: (a) conciliating so as to be settled within three days, not including the official holidays, from the day of knowing or receipt of such dispute; (b) concluding mutual agreement if the settlement is reached in conciliating under sub-section (a), before the Conciliation Body.
Section 25	The Conciliation Body shall refer the collective dispute which does not reach settlement to the relevant Arbitration Body and inform the persons relating to the dispute.
Section 38	No employer shall fail to negotiate and coordinate in respect of the complaint within the prescribed period without sufficient cause.
Section 39	No employer shall alter the conditions of service relating to workers concerned in such dispute at the consecutive period before commencing the dispute within the period under investigation of the dispute before the Arbitration Body or Tribunal, to affect the interest of such workers immediately.

Section 40	The project proponent has to not close the work without negotiation, discussion on dispute in accord with this law, decision by Tribunal
Section 51	The project proponent has to pay the compensation decided by Tribunal if violates any act or any omission to damage the interest of labour by reducing of product without efficient cause.
Section 46	Any Employer who violates any prohibition contained in sections 38 and 39 shall, on conviction, be punished with a fine for a minimum of one-lakh kyats.
The Employment and skill development (2013)	
This law was enacted for safeguarding the right of workers or having skillful of workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of Employer and worker justly. Employer shall conduct occupational training to enhance the skills of workers.	
Section 5	The project proponent has to appoint Employees with the contract in line with the provision of section 5 of said law.
Section 14	Employer shall conduct occupational training to enhance the skills of workers who are to be Employed as well as workers who are presently Employed in accordance with the requirements of the enterprise and the policy of the Skills Development Agency.
The Worker's Compensation Act, 1923	It stipulates that Employer is required to make payments to Employees who become injured or who die in any accidents arising during and in consequence of their Employment. Such compensation also must be made for diseases which arise as a direct consequence of Employment, such as carpal tunnel syndrome.
The Payment of Wages Act, 1936	The Payment of Wage Act defines the payment obligation to the workers Employed in the factories or railway administration. It stipulates the method of payment stating that the payment should be made in cash on a regular payday, and allows legal action against delayed payment or un-agreeable deduction.
The Leave and Holidays Act (1951, partially revised in 2014)	This act has been used as the basic framework for leaves and holidays for workers with minor amendment in 2006 and 2014. This defines the public holidays that every Employee shall be granted with full payment. It also defines the rules of leaves for workers including medical leave, earned leave and maternity leave.
The Minimum Wage Law (2013)	The minimum wage law, passed in March 2013, was replaced the 1949 Minimum Wage Act. The law provides a framework for minimum wage determination: the presidential office establishing a tripartite minimum wage committee shall decide minimum wage with industrial variation based on a survey on living costs of workers possibly every two years. This also stipulates equal payment.
Public Health Law (1972)	Chapter 2; Prevention of Public Health
Objectives	<p>To ensure the public health include not only Employees but also resident people and cooperation with the authorized person or organization of health department. This law focuses as follows</p> <p>The project owner has to cooperate with the authorized person or organization in line with the section 3 and 5 of said law.</p> <p>The project proponent has to abide by any instruction or stipulation for public health under the section 3 of said law.</p> <p>The project proponent has to allow any inspection, anytime, anywhere if it is needed under the section 5 of said law.</p>
Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)	
Chapter 2 Prevention	4. When a Principal Epidemic Disease of a Notifiable Disease occurs;

	<p>Immunization and other necessary measures shall be undertaken by the Department of Health, in order to control the spread there of;</p> <p>The public shall abide by measures undertaken by the Department of Health under sub-section (a).</p>
Chapter 4 Environmental Sanitation	<p>For prevention of the outbreak of Communicable Disease and effective control of Communicable Disease when it occurs, the public shall under the supervision and guidance of the Health Officer of the relevant area, undertake the responsibility of carrying out the following environmental sanitation measures; -</p> <p>Indoor, outdoor sanitation or inside the fence outside the fence sanitation;</p> <p>Well, ponds and drainage sanitation;</p> <p>Proper disposal refuse and destruction there of by fire;</p> <p>Construction and use of sanitary latrines;</p> <p>Other necessary environmental sanitation measures.</p>
Occupational Safety and Health Law (2019)	
Purpose:	To effectively implement measures related to safety and health in every industry and to set occupational safety and health standards;
Section-26 Sub-section (e)	The project proponent has to provide adequate and relevant personal protective equipment to workers free of charge and make them wear it during work so as not to expose workers to any serious occupational diseases or hazards.
Section-26 Sub-section (1)	The project proponent has to arrange and display occupational safety and health instructions, warning signs, notices, posters, and signboards.
Section-30 Sub-section (a)	The worker shall wear or use at all times any protective clothes, equipment and tools provided by the Employer for the purpose of safety and health.
Section-30 Sub-section (d)	The worker shall proper and systematic use any equipment and tools, machines, any parts of the machines, vehicles, electricity and other substances being used at the workplace.
Section-30 Sub-section (e)	The worker shall take reasonable care for the safety and health of himself/ herself and of other persons who may be affected by his/ her acts or omissions at work.
The law on Standardization	
Objectives	<p>The Objectives of this Law are as follows:</p> <ul style="list-style-type: none"> to enable to determine Myanmar Standard to enable to support export promotion by enhancing quality of production organizations and their product, production processes and services to enable to protect the consumers and user by guaranteeing imports and products are not lower than prescribed standard, and safe from health hazards to enable to support protection of environment related to products, production process and services from impact, and conservation of natural resources to enable to protect manufacturing, distributing and importing the disqualified goods which do not meet the prescribed standard and those which are not safe and endangered to the environment to support on establishing the ASEAN Free Trade Area and to enable to reduce technical barriers to trade to facilitate technological transfer and innovation by using the standards for the development of national economic and social activities in accordance with the national development programme.

Chapter 7 Taking Action by Committee No. 19	The committee may, if it is found out that holder of certificate of certification violates any term or condition contained in the relevant recommendation, pass any of the following administrative order: warning suspending the certificate of certification for limited period cancelling the certificate of certification
လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သောဝတ္ထုပစ္စည်းများဆိုင်ရာဥပဒေ (၂၀၁၈)	
ရည်ရွယ်ချက်	လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများကို စနစ်တကျပြုလုပ်ခြင်း၊ တင်သွင်းခြင်း၊ သယ်ယူခြင်း၊ သိုလှောင်ခြင်းနှင့် သုံးစွဲခြင်းတို့ပြုနိုင်ရန်၊ ယမ်းဘီလူးနှင့် ဆက်စပ်သုံးပစ္စည်းများ အသုံးပြုသည့် လုပ်ငန်းခွင်ဘေးအန္တရာယ် ကင်းရှင်း၍ လုံခြုံမှုရှိစေရန်၊ လုပ်ငန်းခွင်သုံး ပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများ ပြုလုပ်သုံးစွဲမှုများကို စနစ်တကျ ကြီးကြပ်နိုင်ရန်။
အခန်း ၇ တားမြစ်ချက်များ အမှတ် ၁၈	လိုင်စင်ရရှိသူနှင့် ခွင့်ပြုချက်ရရှိသူ မည်သူမျှ စစ်ဆေးရေးအရာရှိချုပ် သို့မဟုတ် စစ်ဆေးရေးအရာရှိ၏ စစ်ဆေးခြင်းကို ခံယူရန် ငြင်းပယ်ခြင်းမပြုရ။
အမှတ် ၁၉ (ခ)	ပုဒ်မ ၈ အရ ကာကွယ်ရေးဌာနကောင်စီ အမှုဆောင်အဖွဲ့၏ အတည်ပြုချက်မရရှိဘဲ လုပ်ငန်းခွင် ပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများကို ဖျက်ဆီးခြင်းမပြုရ။
အမှတ် ၁၉ (ဂ)	ဤဥပဒေအရ ထုတ်ပြန်သည့် နည်းဥပဒေ၊ စည်းမျဉ်း၊ စည်းကမ်း၊ အမိန့်ကြော်ငြာစာ၊ အမိန့်နှင့် ညွှန်ကြားချက်များနှင့်အညီ ဆောင်ရွက်ရန် ပျက်ကွက်ခြင်း မရှိစေရ။
The Motor Vehicles Law (2015)	
Objectives	When the constructions periods and if it is needed in operation and production period for all vehicles <ul style="list-style-type: none"> The project proponent has to promise to abide by the nearly all provisions of said law and rules, especially the provisions related to air pollution, noise pollution and life safety.
The Conservation of Water Resources and Rivers Law (2006)	
Aims	The aims of this Law are as follows: to conserve and protect the water resources and rivers system for beneficial utilization by the public; to smooth and safety waterways navigation along rivers and creeks; to contribute to the development of State economy through improving water resources and river system; to protect environmental impact.
Chapter 5 Prohibitions No. 8	No person shall: (a) carry out any act or channel shifting with the aim to ruin the water resources and rivers and creeks. (b) cause the wastage of water resources wilfully.
No. 10	No person shall anchor the vessels where vessels are prohibited from anchoring in the rivers and creeks.
No.11 (a)	No person shall: dispose of engine oil, chemical, poisonous material and other materials which may cause environmental damage, or dispose of explosives from the bank or from a vessel which is plying, vessel which has berthed, anchored, stranded or sunk.

No. 12	No person shall carry out growing of garden, digging, filling, silt trapping, closing pond, dyke building or erecting spur in the river-creek boundary, bank boundary and waterfront boundary without the permission of the relevant government department and organization.
No. 15	No person shall carry out the construction of switchback, dockyard, wet dockyard, water-tight dockyard, building of jetty, pier, landing stage or vessel landing by drainage in the river-creek boundary, bank boundary and waterfront boundary without the permission of the Directorate.
The Commercial Tax Law (1990) Amended 2014	
Chapter 5 Registration and Intimation of Commencement of Enterprise 11 (b)	Any Person who commences operation of a goods production enterprise or service enterprise shall furnish letter of intimation on the commencement of the operation as such to the relevant Township Revenue Officer as stipulated by regulations.
Chapter 6 Monthly Payment of Tax and Sending of Three-Monthly Return 12 (a)	Any person who has taxable proceed of sale or receipt from service within a year, shall pay due monthly tax within ten days after the end of the relevant month. Moreover, a three-monthly return shall be furnished to the relevant Township Revenue Officer within one month after the end of relevant three-month.
12 (b)	The Township Revenue Officer may intimate any person to pay due monthly tax and send three-monthly return if there is cause to consider that he has taxable proceed of sale or receipt from service within a year.
12 (c)	If it is failed to pay tax under sub-section (a) or (b), or if there is cause to consider that the tax paid is less than the tax payable, the Township Revenue Officer may, based on the information received, estimate and claim the tax payable or the additional tax payable.
12 (d)	The tax paid under sub-section (a), (b) or (c) shall be set-off from the tax due in the assessment.
12 (e)	The tax payable on goods imported under sub-section (c) of section 4 of the Law shall be collected together with the customs duties by the Customs Department in accord with the manner of collecting customs duties.

5.2. INTERNATIONAL GUIDELINES

Organization's Guidelines, World Bank Safeguard Policies, IFC Performance Standards and National Environmental Quality (Emission) Guidelines (2015) are referred for IEE of the proposed factory project.

5.3. COMMITMENT OF EMERALD FOOTWEAR MFG COMPANY LIMITED

Emerald Footwear MFG Company Limited has made the commitments and responsible for the preservation of the environment at and around the area of project site. In addition to this, it shall carry out as per instructions made by Ministry of MONREC in which to conduct an IEE which describe the measure to be taken for preventing, mitigation and monitoring significant environment impacts resulting from the implementation and operation of proposed project or business or activity has to be prepared and submitted and to perform activities in accordance with this IEE and be abided by the environment policy, Environmental Conservation Law and other environmental related rules and procedures.

- Monitoring the factory area operations according to IEE and Environmental Monitoring Plan (EMoP)

- Submitting environmental monitoring reports to ECD
- Planning and implementation of CSR activities
- To set up welfare plan such as staff medical checkup, training program and Public talk for getting knowledge, risk prevention, bonus and social security services
- To carry out fire safety assessment and ensure adequate and appropriate fire safety measures for employees

6. BRIEF DESCRIPTION OF SURROUNDING ENVIRONMENT

The purpose of this Chapter is to predict how environmental and socio-economic conditions will affect because of the implementation of the proposed Project. This requires a sound understanding of the baseline conditions at the project site, which established through desktop study research, site surveys, primary data collection and projections for future developments. Findings provide the current and future characteristics of the project site and the value and vulnerability of the key environmental and socio-economic resources and receptors. The following sections provide a description of the environmental and socio-economic aspects of the project.

6.1. METHODOLOGY FOR DATA COLLECTION AND ANALYSIS

The followings methodologies are used for Initial Environmental Examination (IEE) for this report preparation;

- Onsite Measurements and Analysis – Baseline parameters such as air quality monitoring, Indoor temperature, humidity, operation light conditions, noise and water quality of the project site.
- Secondary data collection of proposed project site area – Socio economic condition, physical/biological environment, and weather data are collected from official township data of Dagon Myothit (South) Township, Yangon Region.

6.2. ENVIRONMENTAL BASELINE STUDY

The field observation for determining the environmental baseline of the proposed project area was undertaken during operation period. The survey team consists of the senior consultant and environmental quality team. The baseline data collected regarding the environmental condition of the project area was conducted in the following section.

6.2.1. Site Survey and Environmental Monitoring

The baseline environmental quality at the Project Site and its immediate surroundings was established by groundwater, wastewater, ambient air quality samples, noise and indoor temperature and humidity measurements at immediate surrounding areas. To determine the existing baseline environmental quality within the project site on 17 September 2020.

The overall conditions of air quality, water quality, and noise levels are quoted from the project. The summary of the field survey for overall conditions is shown in Table 6-1.

Table 6-1 Summary of Environmental Survey

Item	Parameter
Air Quality	(1) Sulfur dioxide (SO ₂), (2) Carbon monoxide (CO), (3) Nitrogen dioxide (NO ₂), (4) Ozone (O ₃), (5) PM ₁₀ and PM _{2.5}
Noise level	Indoor sound level (LAeq)
Light Level	Industry light condition (Lux)

6.2.2. Air Quality

To determine the existing baseline ambient air quality status within the project site on 17, September 2020, working hours of working period air pollutants level, which include dust (PM₁₀ and

PM_{2.5}) and gases (CO, O₃, SO₂, NO₂) were measured at the selected site using the Oceanus air monitoring station. To reveal the existing status of baseline air quality, the average ambient air qualities measured were compared with National Environmental Quality (Emission) Guideline. The measurement location point is situated at latitude 16°53'32.05"N and longitude 96°15'3.96"E. According to the observation, the results of Particulate Matter (PM_{2.5}, PM₁₀) and gases (NO₂, SO₂, O₃, CO) are within the NEQ Guideline.

Table 6-2 Observed Air Quality Results

Parameters	Observed Value	Guideline Value	Unit	Organization	Period
PM ₁₀	17.07	50	µg/m ³	NEQG	24 hrs
PM _{2.5}	12.46	25	µg/m ³	NEQG	24 hrs
NO ₂	18.16	200	µg/m ³	NEQG	1 hr
SO ₂	45.49	500	µg/m ³	NEQG	10 mins
O ₃	33.48	100	µg/m ³	NEQG	8 hrs
CO	6.5	-	µg/m ³	-	8 hrs

NEQG = National Environmental Quality (Emission) Guideline



Figure 6-1 Outdoor Air Quality Measurement at the project site

6.2.3. Noise Level

The Noise level was measured by using Digital Sound Level Meter for parameter of A-weighted loudness equivalent (LAeq). Noise survey was located in project site. According to the data, the level of noise at operation area is within the NEQ Guideline.

Table 6-3 Location of Noise Level Survey Point

Survey Point	Coordinates	Type of Survey Point	Measurement Result	NEQ Guideline
Noise level	16°53'33.18"N 96°15'4.54"E	Operation area (Sewing Line)	68.82 dBA	70 dBA

6.2.3.1. Survey method

Measurement of noise level was conducted by referring to the recommendation of the International Organization for Standardization (ISO 1996-1/2003 & 1996-2/2007). The instrument used

for noise measurement was set at the height of 1.2 m. A-weighted loudness equivalent level was measured automatically every 20 seconds and recorded in a memory card. Survey result of Noise level (LAeq) along the survey point is presented in Table. Noise level measured in the operation area is within the guideline limit.



Figure 6-2 Noise Level Measurement Photo

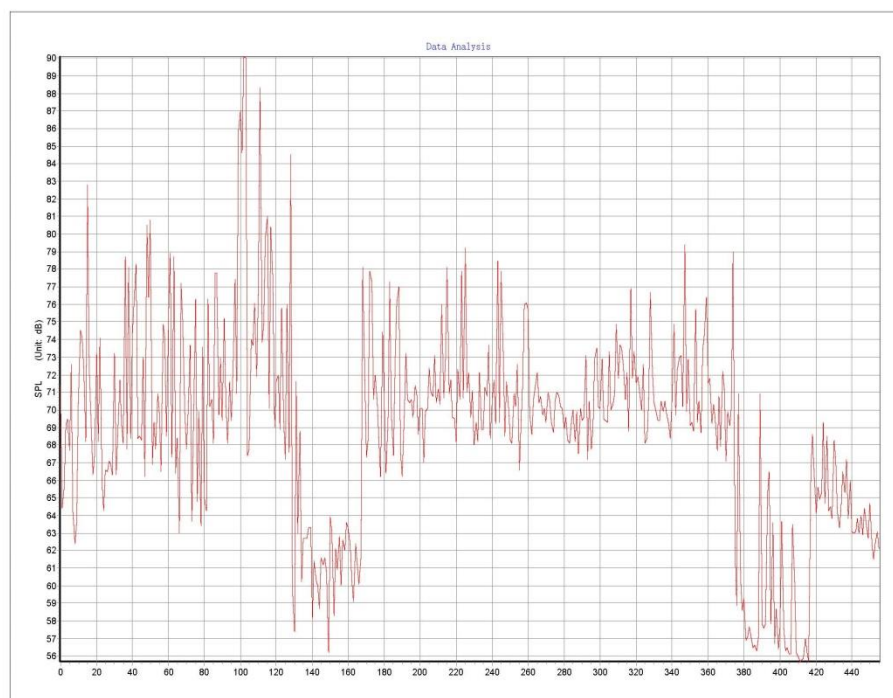


Figure 6-3 Noise Level Result Graph

6.2.4. Light

Activities of the workers in shoe factory are highly dependent on the quality of light. Therefore, the consultant conducted the light measurement in shoe factory is presented in below. The illustrates the recommended illumination and limiting glare index applicable to typical works (fairly severe to very severe tasks) in shoe factory is provided in Table 6-4. Appropriate lighting is the need for every

department, irrespective to the task being handled. Although, there are some areas where focus on maintaining proper illumination is very crucial in a shoe factory, like the inspection points (on-floor and in stores), sampling, iron section and the finishing section, as these areas are crucial to the quality of the production. The tasks involved in these areas require high levels of worker focus and accurate lighting ensures lower errors and defects passing on to the next stage. However, according to the result of light measurement at operation area (inside the production sector) is good condition to the acceptable level of standard.

Table 6-4 Recommended illumination and limiting glare index based on IES Code, 1968

Visual test	Illumination (lux)	Glare index
Casual seeing	100	28
Rough task with large detail	200	25-28
Ordinary task medium detail	400	25
Fairly severe task, small detail (e.g. drawing office, sewing)	600	19-22
Severe, prolonged task, very small detail (e.g. fine assembly, hand tailoring)	900	16-22
Very severe, prolonged task, very small detail (e.g. gem cutting, hosiery mending, gauging very small parts)	1,300-2,000	13-16

Source: Koenigsberger, et al. 1975



Figure 6-4 Light Quality Measurement at Emerald Footwear MFG Company Limited Factory

Table 6-5 Light Measurement Emerald Footwear MFG Company Limited Factory

No	Location	Measure Value (Lux)	Standard*
1	Warehouse	325	300
2	Mold Cutting Area	859	1000
3	Sewing	1105	600
4	Attaching	783	900
5	QC	1045	900
6	Packing	753	600

* Lighting standards and codes usually provide recommended illuminance ratios between the task area and its surroundings (EN 12464-1 2002) (CIBSE 1997) (IESNA 2000, 676708).

6.2.5. Indoor Temperature and Humidity

The indoor temperature and humidity condition during 17 September 2020, shows the average temperature of 38.3 °C while the average humidity is 64.3 % as shown in Table 6-6.

Table 6-6 Temperature and Humidity Measurement at Factory

Date and Time	Description	Result value	Environmental parameter air station guideline
17 September 2020	Relative Humidity RH %	64.3 (%)	Present condition
	Temperature	38.3 °C	Present condition



Figure 6-5 Temperature and Humidity Measurement in Operation Area of the Factory

6.3. PHYSICAL COMPONENT (SECONDARY DATA)

6.3.1. Topography

Yangon area is the largest; most populated and urbanized area in Myanmar. There are thirty-three townships in Yangon city where is located at the convergence on the Yangon and Bago River region about 34 km away from the Gulf of Martaban. The proposed project area is situated at Industrial Zone, Dagon Myothit (South) Township, and its topographic condition is flat. The proposed project site is primarily agricultural land, but now is initiated into the industrial zone area.

6.3.2. Geology

In Yangon area mainly composed of Pegu Group, Irrawaddy Formation and Alluvium. Alluvial deposits (Pliocene to Recent), the non-marine fluvial sediments of Irrawaddy formation (Pliocene), and hard, massive sandstone of Pegu series (early-late Miocene) underlie the Yangon area. Alluvial deposits are composed of gravel, clay, silts, sands and laterite which lie upon the eroded surface of the Irrawaddy formation at 3-4.6 m above mean sea level (MSL). The rock type in Yangon is mainly soft rocks, which consist of sandstone, shale, limestones and conglomerate. Geological map of Yangon Regional area is shown in Figure 6-6.

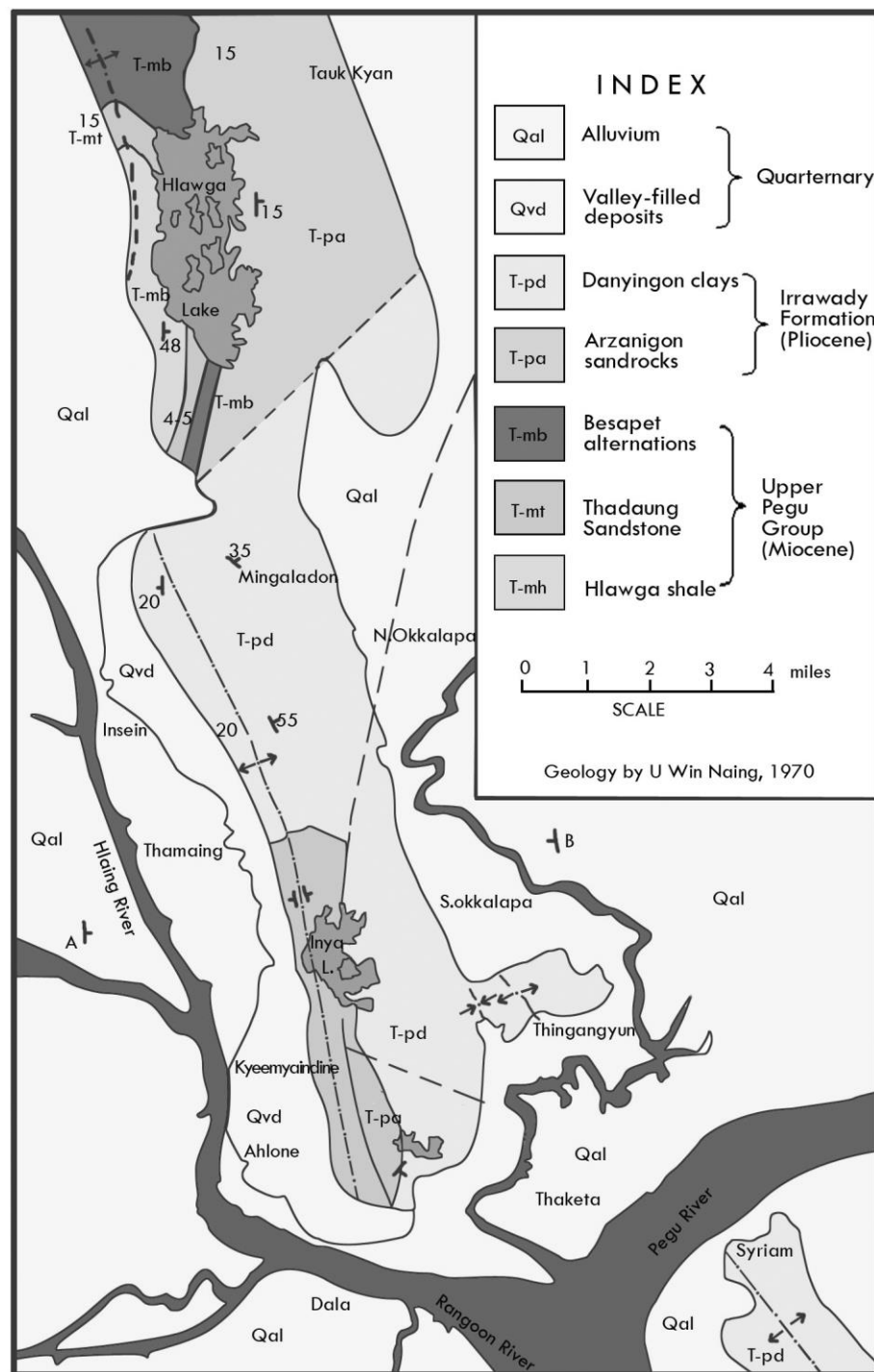


Figure 6-6 Geological Map of Yangon Region

6.3.3. Tectonics

Yangon is situated in the southern part of the Central Lowland which is one of the three major tectonic provinces of Myanmar. The Taungnio Range of the Gyophyu catchments area of Taikkyi District, north of Yangon, through the Thanlyin Ridge, south of Yangon forming a series of isolated hills probably resulted from the progressive deformation of the Upper Miocene rocks as the eastern continuation of the subduction or stretching and compression along the southern part of the Central Basin and regional uplifting of the Pegu Yoma (Aung Lwin 2012).

6.3.4. Soil

The underlying soil type at the Project Site and its surroundings is characterized as the Meadow and Meadow Alluvial Soil. Meadow Soil is soil which occurs near the river plains exposed to occasional tidal floods, is non-carbonate and usually contains a large amount of salt. Both materials mainly comprise silty clay loam and neutral soil rich in plant nutrient. The upper layers (approximately 0 to 7 m) of the soil at the Project Site comprise largely of cohesive layers with traces of sand and gravel, followed by sand layers with low silt content and trace gravel from 7 to 35 m. The lower layers comprise denser silt layer with traces of sand and gravel from approximately 57 to 70 m. Standard Penetration Test (SPT) results obtained from testing at the Project Site indicate that the soil strength generally increases with depth. The STP results showed that the current soil quality can accommodate the construction of the Project. ^[2]

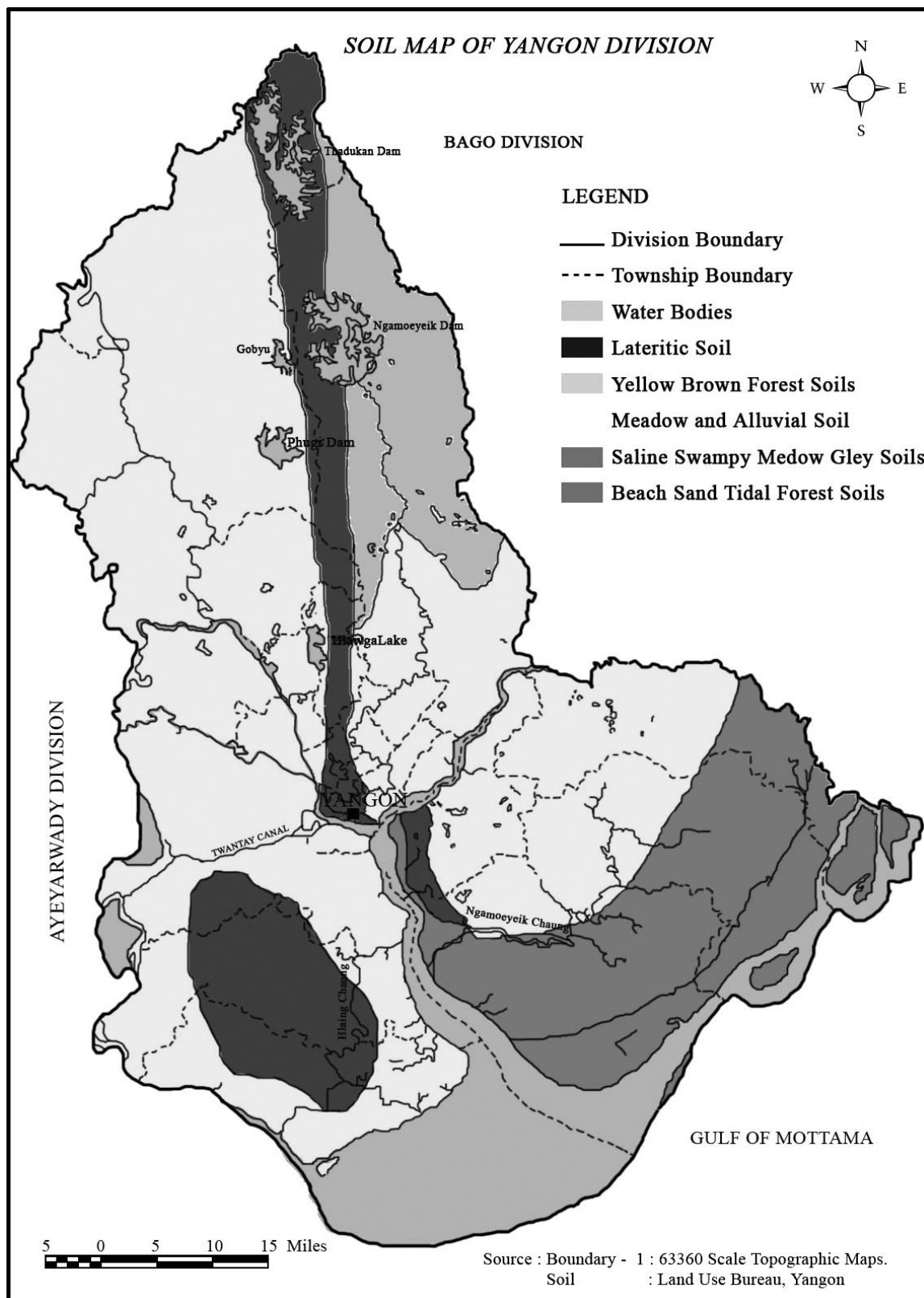


Figure 6-7 Soil Map of Yangon (Source: Land use of Bureau of Yangon)

6.3.5. Hydrogeology

Yangon is rich in groundwater resources conserved by unconsolidated Tertiary-Quaternary deposits. In Yangon, groundwater is mostly extracted from Valley filled deposits and Ayeyarwady sandstones.

Groundwater: Groundwater availability is generally based on the distribution of permeable and relatively impermeable rocks. The nature of openings in the rocks determines permeability of rocks. Based on local geological considerations, potential groundwater source of Yangon can be roughly divided into two sub regions, namely the low potential area and high potential area. Low potential areas are areas with those rock units of Hlawga Shale, Thadugan Sandstones and Basepet Alternation of upper Pegu Group (Miocene epoch) and Danyingon Clays of Irrawaddy rocks. These rocks and formations are a dense, massive and consolidated nature and have impervious characteristic. High potential areas are underlain by Pliocene Series and recent Formations. High potential area covers approximately 85 percent of the Yangon city including Pabedan. Stand pipe piezometers were installed at a depth of up to 30 m from the existing ground level while a pumping well was installed upon completion of the soil investigation works. Based on the results recorded up to the 8th of December 2012, stabilized groundwater level was observed to range between 0.49 m MSL to -1.81 m MSL.

Water Supply: The Yangon City Development Committee (YCDC) has an overall responsibility for the management and distribution of water for Yangon City. Presently, YCDC's water supply is obtained from two main sources: (1) reservoir (Hlawga, Gyobu, Pugyi and Ngameoyeik reservoirs) and, (2) groundwater from YCDC's tube wells. Water from these sources is utilized to varying degrees. Areas not supplied with water from the YCDC rely on shallow surface wells and private boreholes. Water supply for the Project Site will be obtained from onsite borewells for both construction and operations due to the poor reliability of municipal supply. Permitting is part of the Planning Consent Application currently underway. The boreholes will be provided and operated by the Developer.

Hydrology: The Project Site lies along the catchment of the Bago River which flows north to south. A small portion of the Bago River (the estuary) lies within the Yangon Division. The Pazundaung Creek and Bago River joins the Yangon River and from there, flow towards the Southwestern direction into Andaman Sea.

6.3.6. Climate and Meteorology

6.3.6.1. Average Weather in Yangon

In Yangon, the wet season is oppressive and overcast, the dry season is muggy and partly cloudy, and it is hot year-round. Over the course of the year, the temperature typically varies from 67 °F to 97 °F and is rarely below 62 °F or above 101 °F. ^[6]

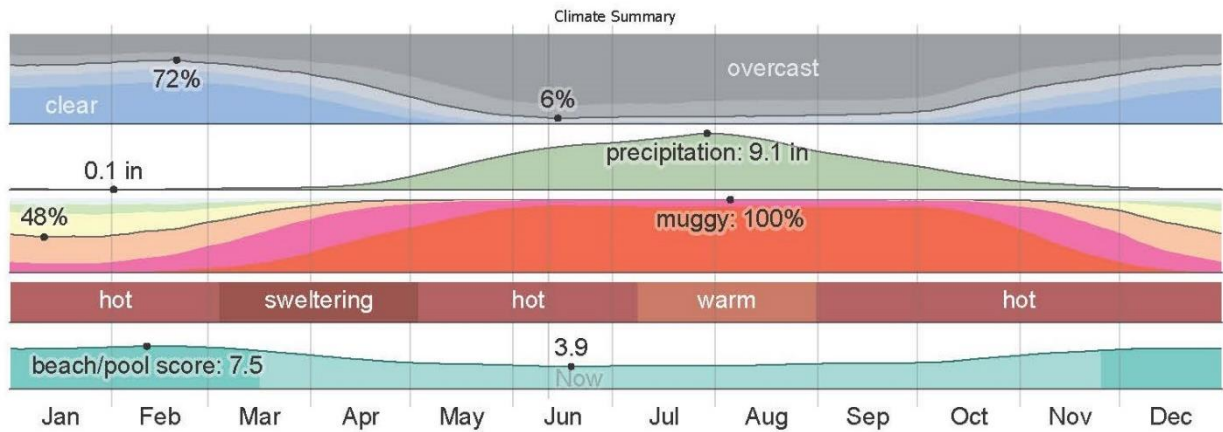


Figure 6-8 Climate Summary of Yangon Region

6.3.6.2. Temperature

The hot season lasts for 2.0 months, from March 2 to May 3, with an average daily high temperature above 95 °F. The hottest day of the year is April 11, with an average high of 97 °F and low of 78 °F.

The cool season lasts for 3.9 months, from June 2 to September 29, with an average daily high temperature below 87 °F. The coldest day of the year is January 10, with an average low of 67 °F and high of 88 °F.

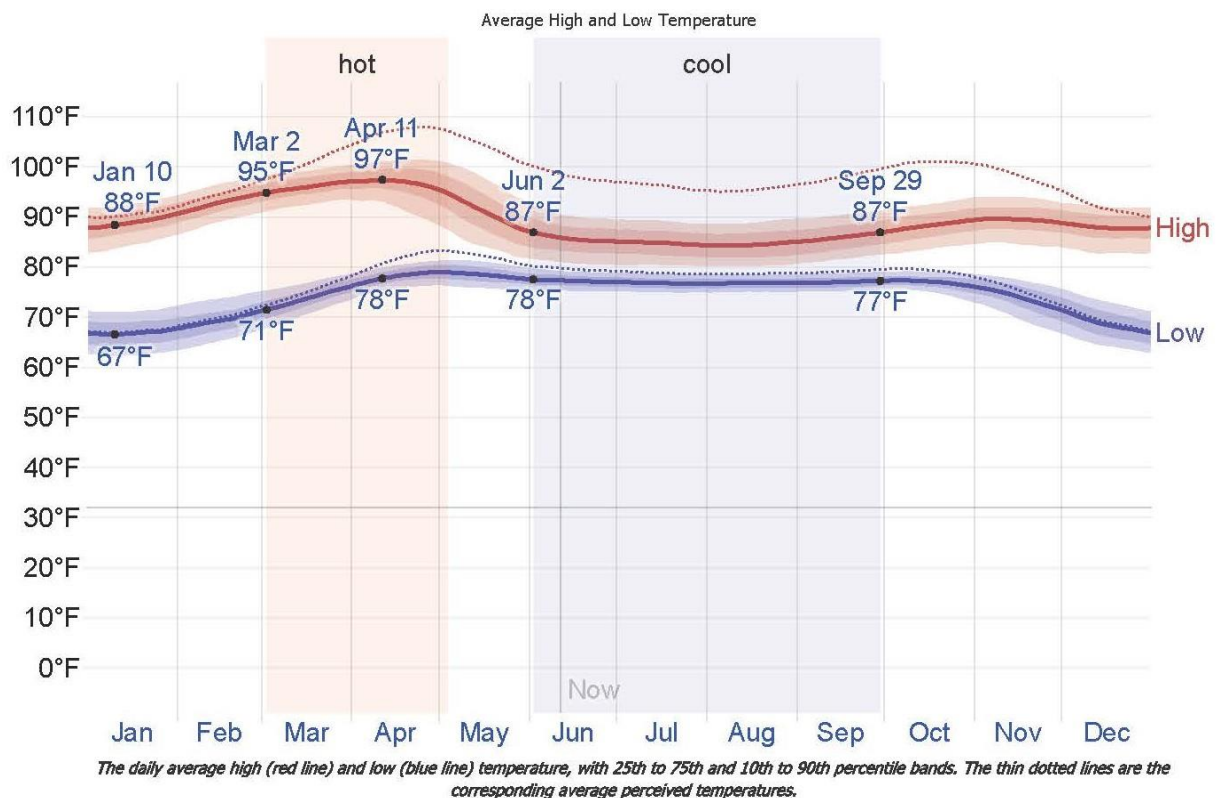


Figure 6-9 Average temperature of Yangon Region

6.3.6.3. Clouds

In Yangon, the average percentage of the sky covered by clouds experiences extreme seasonal variation over the course of the year. In clearer part of the year in Yangon begins around November 2 and lasts for 5.6 months, ending around April 22. On February 20, the clearest day of the year, the sky is clear, mostly clear, or partly cloudy 72% of the time, and overcast or mostly cloudy 28% of the time.

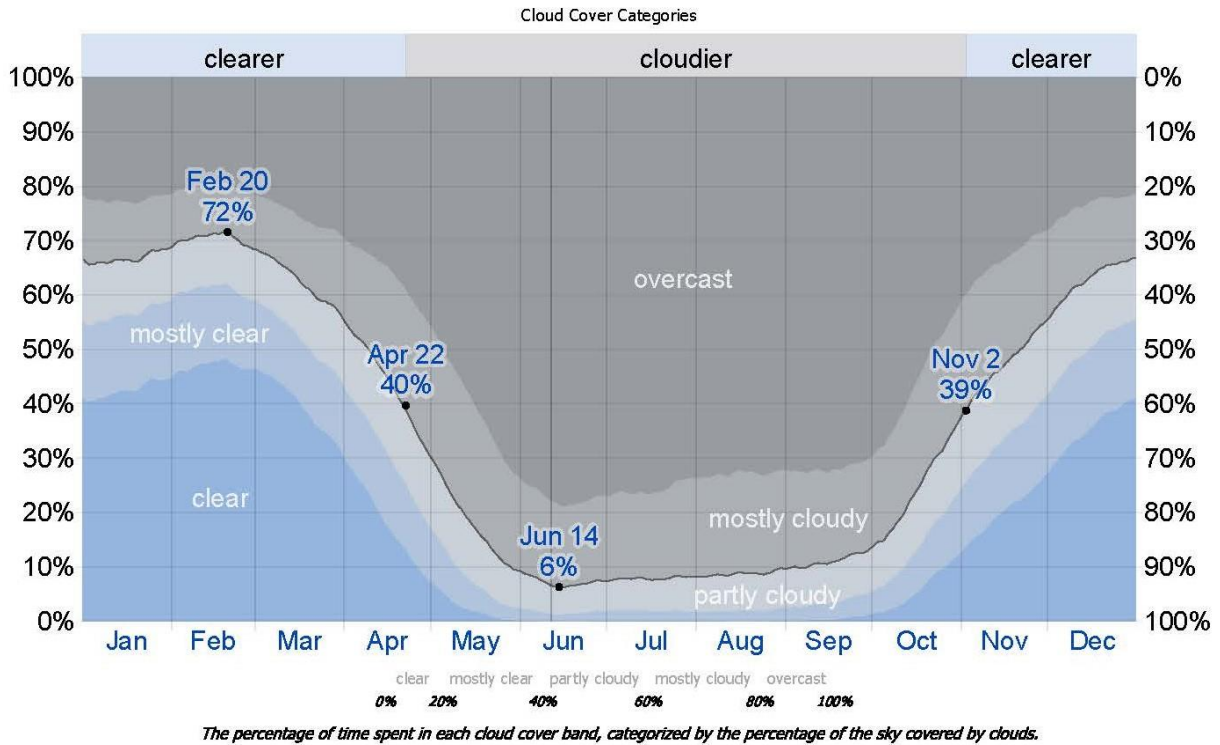


Figure 6-10 Cloud Cover Categories

6.3.6.4. Rainfall

To show variation within the months and not just the monthly totals, we show the rainfall accumulated over a sliding 31-day period centered on each day of the year. Yangon experiences extreme seasonal variation in monthly rainfall. The rainy period of the year lasts for 7.7 months, from April 5 to November 28, with a sliding 31-days rainfall of at least 0.5 inches. The most rain falls during the 31 days centered around July 30, with an average total accumulation of 9.1 inches. The rainless period of the year lasts for 4.3 months, from November 28 to April 5. The least rain falls around February 1, with an average total accumulation of 0.1 inches.

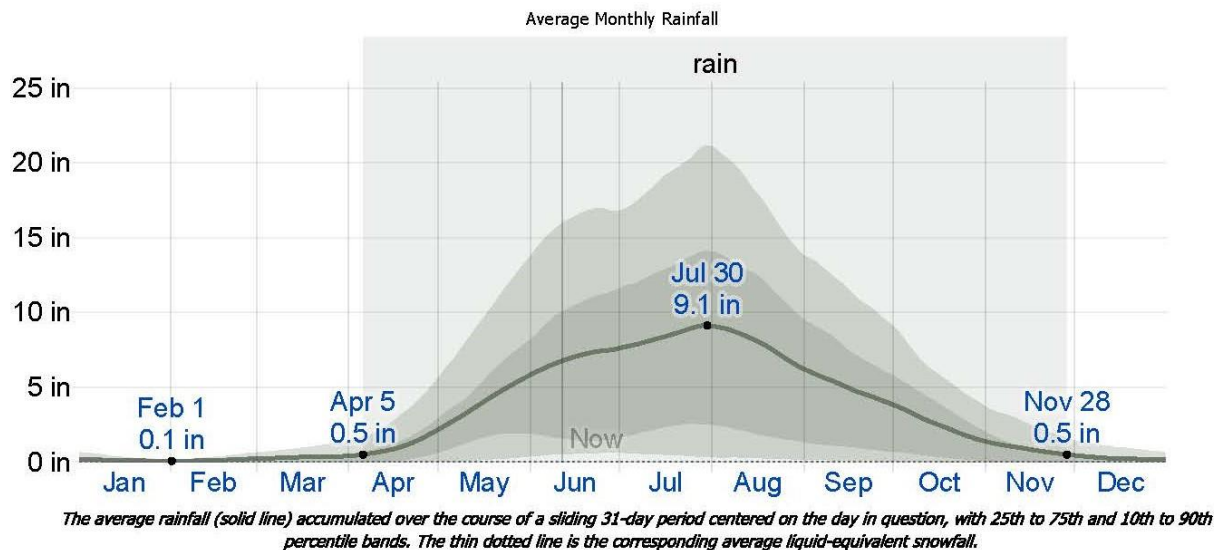


Figure 6-11 Average Monthly Rainfall at Yangon Region

Table 6-7 Annual Rainfall and temperature

Year	Rainfall		Temperature	
	Raining day	Rainfall value	Summer season Max (°C)	Winter season Min (°C)
2015-2016	105	84.91	34	30
2016-2017	116	85.89	34	30
2017-2018	97	86.70	38	30
2018-2019	69	1320	41	30

Source: Department of Administrative Dagon Myothit (South) Township, Regional data (www.gad.gov.mm.com)

6.3.6.5. Humidity

We base the humidity comfort level on the dew point, as it determines whether perspiration will evaporate from the skin, thereby cooling the body. Lower dew points feel drier and higher dew points feel more humid. Unlike temperature, which typically varies significantly between night and day, dew point tends to change more slowly, so while the temperature may drop at night, a muggy day is typically followed by a muggy night.

Yangon experiences extreme seasonal variation in the perceived humidity. The muggier period of the year lasts for 10 months, from February 22 to December 23, during which time the comfort level is muggy, oppressive, or miserable at least 61% of the time. The muggiest day of the year is August 5, with muggy conditions 100% of the time. The least muggy day of the year is January 11, with muggy conditions 48% of the time.

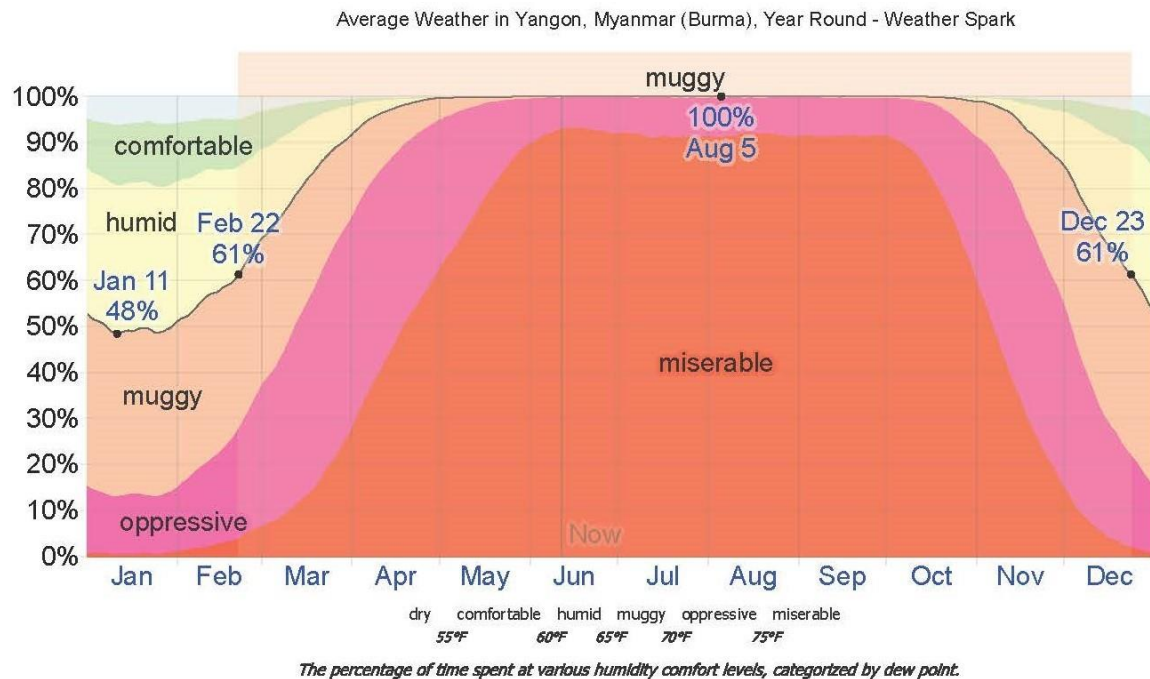


Figure 6-12 Humidity of Yangon

6.3.6.6. Wind

This section discusses the wide-area hourly average wind vector (speed and direction) at 10 meters above the ground. The wind experienced at any given location is highly depended on local topography and other factors, and instantaneous wind speed and direction vary more widely than hourly averages. The average hourly wind speed in Yangon experiences significant seasonal variation over the course of the year. The windier part of the year lasts for 4.1 months, from May 1 to September 4, with average wind speeds of more than 8.2 miles per hour. The windiest day of the year is June 24, with an average hourly wind speed of 10.6 miles per hour. The calmer time of year lasts for 7.9 months, from September 4 to May 1. The calmest day of the year is January 9, with an average hourly wind speed of 5.8 miles per hour.

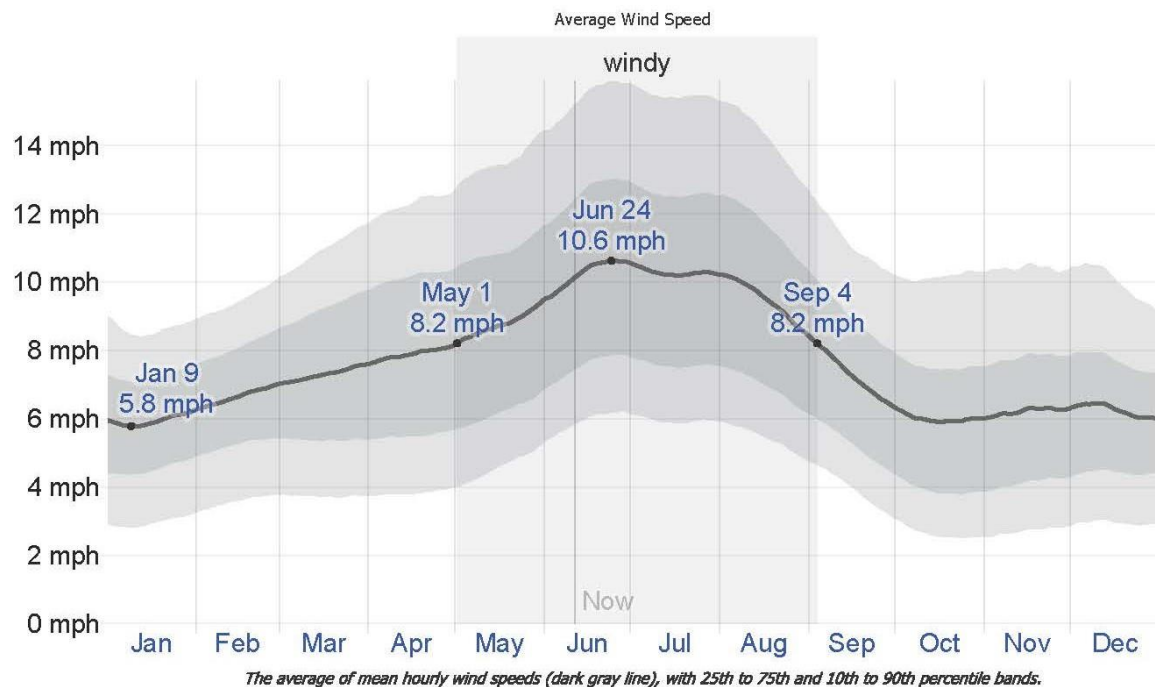


Figure 6-13 Average Wind Speed in Yangon

6.4. BIOLOGICAL COMPONENT (SECONDARY DATA)

As the proposed project area is located in the industrial zone, the information of ecological resources is very unlikely. In addition, within the proposed project area, there are no forests, protected areas and coastal resources. The proposed project site is not located in or near a sensitive ecosystem as the proposed project area is situated in the Dagon Myothit (South) Township. The Project Site is a built-environment and the species of flora surveyed at the site are native species uncommon to the Yangon area.

Ecological Resources	Existing condition
Fisheries, aquatic biology	Non existence
Wildlife	Non existence
Forests	Non existence
Rare or endangered species	Non existence
Protected areas	Non existence
Coastal resources	Non existence

6.5. SOCIO-ECONOMIC COMPONENT

6.5.1. Population

Emerald Footwear MFG Company Limited is located across South Dagon Township in Yangon Region. In 2019, the population of South Dagon Township is about 325,866 people as present in Table 6-8.

Table 6-8 Population of Males and Females at South Dagon Township (2019)

Item	Over 18 year			Under 18 year			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Urban	106,153	118,586	224,739	50,210	50,937	101,147	156,363	165,523	325,866
Rural	-	-	-	-	-	-	-	-	-
Total	106,153	118,586	224,739	50,210	50,937	101,147	156,363	165,523	325,866

Source: Department of Administrative South Dagon Township, Regional data (www.gad.gov.mm.com)

6.5.2. Religion

The different kinds of religion present South Dagon Township are shown in Table 6-9. More than 90% of the people living in the township is Buddhists.

Table 6-9 Religion in South Dagon Township (2019)

Township	Buddhist	Christian	Hindu	Muslim	Total
South Dagon Township	298,751	225	6,513	20,397	325,866

Source: Department of Administrative South Dagon Township, Regional data (www.gad.gov.mm.com)

6.5.3. Local Economy

Among regional towns, South Dagon Township has a variety of businesses and services operating in the community with other businesses/services, based in the region. Most of the source of livelihood in the Township is employment of factory. Services and facilities available include:

- post office
- beauticians
- butcher
- hairdressers
- furniture and electrical store
- restaurants
- cafes
- shoe and clothing shops
- industrial services
- pharmacy
- veterinarian
- bus service
- gift stores
- music store
- pubs and bars
- florist

6.5.4. Public Infrastructure and Access

6.5.4.1. Communication and Transportation

Major transportation route in South Dagon Township are railway, port, and car road as presented in Table 6-10.

Table 6-10 Transportation Route

Categories	Township		Miles
	From	to	
Train Station	Toe Kyaung Kalay	Thanlyin Station	5
Bus Line (6, 7, 59, 60, 71)	South Dagon Township	Downtown Area	-
Highway Road	-	-	-

Source: Department of Administrative South Dagon Township, Regional data (www.gad.gov.mm.com)

6.5.4.2. Electricity

The electricity demand of South Dagon Township is higher and higher due to the normally increased in population and infrastructure.

6.5.4.3. Education

. Location of major schools was situated i.e. basic education primary school (B.E.P.S.), basic education middle school (B.E.M.S), basic education high school (B.E.H.S) and West Yangon Technological University, in the South Dagon Township. The name and the located village tract/ ward of schools are described in Table 6-11.

Table 6-11 List of major school in South Dagon Township

No.	Name of School	Location
1	The National University of Art and Culture	No (26) Ward
2	Economic University	Ywar Thar Gyi Yard
3	BEHS (1)	No (21) Ward
4	BEHS (2)	No (18) Ward
5	BEHS (3)	No (26) Ward
6	BEHS (4)	No (70) Ward
7	BEHS (5)	No (55) Ward
8	BEHS (6)	No (54) Ward
9	BEHS (Site Hmwe)	Site Hmwe Ward
10	Hta Kwe Lay Dauk Kan	Lay Dauk Kan
11	BEMS (1)	No (64) Ward
12	BEMS (2)	No (107) Ward
13	BEMS (3)	No (71) Ward
14	BEMS (4)	No (23) Ward
15	BEMS (5)	No (18) Ward
16	BEMS (6)	No (71) Ward
17	BEMS (7)	No (65) Ward
18	BEMS (8)	No (107) Ward
19	BEMS (9)	No (57) Ward

No.	Name of School	Location
20	BEMS (10)	No (22) Ward
21	BEMS (Branch) (1)	No (24) Ward
22	BEMS (Branch) (4)	No (21) Ward
23	BEMS (Branch) (8)	No (56) Ward
24	BEMS (Branch) (24)	No (104) Ward
25	BEMS (Branch) (27)	No (140) Ward
26	BEMS (Branch) Ywar Thar Gyi	Ywar Thar Gyi Yard
27	Pre School (1-6)	South Dagon Township
28	BEPS (1-12)	South Dagon Township
29	South Dagon KG School	No (18) Ward

Source: Department of Administrative South Dagon Townships, Regional data (www.gad.gov.mm.com)

6.5.4.4. Health Status

The diseases of high prevalence reported in 2013 are Tuberculosis (TB), followed by Acute Respiratory Infection (ARI), Diarrhea, TB and snakebites. With reference to the Township Health Profile 2014 of South Dagon Township, no accidental work injuries reported to the township hospital in 2013. The common diseases are shown in Table 6-12 and Table 6-13.

Table 6-12 Common Diseases in the South Dagon Township

Disease	South Dagon Township	
	Morbidity	Mortality
Malaria (Per 100000P)	-	-
Dysentery	21	-
Diarrhea (Per 100000P)	37	-
TB (Sputum+) (Per 10000P)	67	-
Hepatitis	5	-

Source: Department of Administrative South Dagon Township, Regional data (www.gad.gov.mm.com)

Table 6-13 Lists of hospital in the South Dagon Township

Hospital Name	Beds/Services	Responsible
Mental Health Hospital (Yangon)	Above 25 Beds	Government
General Hospital in South Dagon Township	16 Beds	Government

Source: Department of Administrative South Dagon Township, Regional data (www.gad.gov.mm.com)

6.6. CULTURAL AND VISUAL COMPONENTS

South Dagon Township is growing into a busy and vibrant community. The population fluctuates; however, there has been steady growth over the last decade. It tends to be a stopover on a journey rather than a destination. It has a number of sites that are interesting; however, there is no main attraction. Visitors to the town are generally visiting for work, investment or family reasons.

7. ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

7.1. IMPACT IDENTIFICATION

The development of infrastructure for the proposed project likely to happen changes in the local environment in terms of physical, biological and socio-economic aspects along with the perspective on both positive and negative impacts. The potential environmental impacts brought by various activities of proposed factory project will be identified and judged by site surveying with checklist, meeting with client team, including plant manager and supervisor, representatives from the factory operators and assessing the environmental baseline information for operation and decommissioning phases along with its mitigation measure.

7.1.1. Positive Impact

During the project implementation, at least 1000 local people can get job opportunities in administrative sectors, office works, transportation sectors, skill and unskilled workers, etc. Due to the implementation of the project, there will be employment opportunities especially for workers from the local community. Employees will also improve more in their professional knowledge and skills. The net effect of job creation is the improvement of the livelihoods and living standards of the beneficiaries and poverty reduction, development of local people's livelihood. Cause of the proposed project is located in South Dagon Industrial Zone, there may have business opportunities to local people. Local people can have a market by selling foods, snacks and drinks nearby the factory.

7.1.2. Negative Impact

The following Figure 7-1 briefly described the potential negative impacts of the proposed project. There are four main types of impacts; impact on environmental resources, impact on ecological resource, impact on human and impact of waste generation.

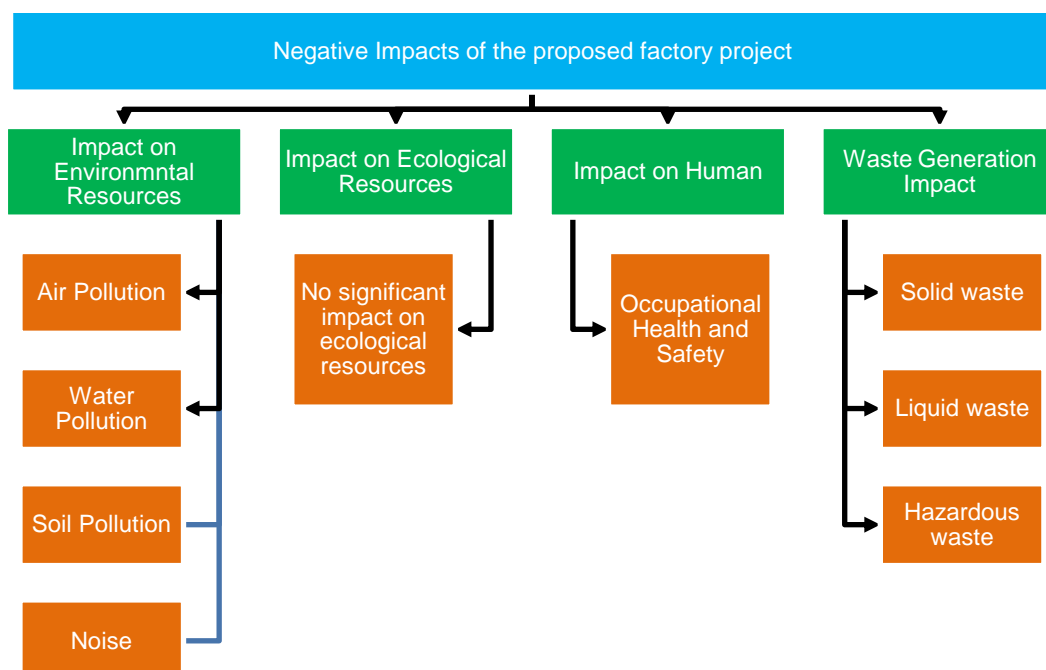


Figure 7-1 Potential Negative Impact Affect from Proposed Project

7.2. METHODOLOGY FOR THE ASSESSMENTS

The assessment of each impact is based on consideration of the magnitude, duration, spatial and frequency of activities, which are going to be carried out during three phases and characteristics of the project site. The assessment is qualitative and the significance of each impact is classified into 5 categories in overall.

The following methodology has been applied to assess the environmental impacts of the factory mainly on air, water, land, biodiversity, including human beings. Each source of impact has been assessed by four parameters, magnitude, duration, extent and probability and each assess point have 5 scales as mentioned in Table 7-1.

Table 7-1 Impact assessment parameters and its scale

Assessment	Scale				
	1	2	3	4	5
Magnitude (M)	Insignificant	small and will have no effect on working environment	Moderate and will result in minor changes on working environment	High and will result in significant changes on working environment	Very high and will result in permanent changes on working environment
Duration (D)	0 - 1 year	2 - 5 year	6 - 15 year	Life of operation	Post Closure
Extent (E)	Limited to the site	Limited to the local area	Limited to the region	National	International
Probability (P)	Very improbable	Improbable	Probable	Highly probable	Definite

Then, the Significant Point (SP) calculated by following formula.

$$\text{Significant Point (SP)} = (\text{Magnitude} + \text{Duration} + \text{Extent}) * \text{Probability}$$

Impact Significance: Based on calculated significant point, impact significance can categorize as follows:

Significant Point (SP)	Impact Significance
<15	Very Low
15-29	Low
30-44	Moderate
45-59	High
60	Very high

7.3. POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION & DECOMMISSIONING PHASE

Construction phase: The project factory is already constructed during environmental assessment study and site visit. Therefore, the proposed project is located in industrial zone and already finished the construction, the potential impact on environment is not assessed and affected must be caused the construction period.

Decommissioning phase: The proposed duration of the investment shall be 10 years. The term of the Lease shall be initial 5 years commencing from the date of signing of the Lease Agreement between Local owner and Emerald Footwear MFG Company Limited for proposed project site for 1.1367 acres of land and extendable for five years in 2 times. The project of land and building will be restitution to land owner after close the operation. Therefore, the assessment study cannot be need for environmental impact assessment during decommission phase.

These two phases of operation shall be represented by land owner. If the owner will be demolished their factory, they will need mitigation and monitoring plan for environmental impact. Therefore, Myanwei's environmental assessment team presented for monitoring plan during decommissioning phase.

7.4. SIGNIFICANT IMPACTS OF PROJECT ACTIVITY AND MITIGATION MEASURE

The project activities, their impacts and significance of impact are provided in Table 7-2.

Table 7-2 Evaluation and Perdition of Significant Impacts and Mitigation Measures on Operation phase

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Impact on Environmental Resource									
Air	<ul style="list-style-type: none">Dust and GHGs emission from vehicles used for transporting raw materials and final productsEmission of smoke from emergency diesel generator and vehicle movement	3	4	1	3	24	Low	<ul style="list-style-type: none">Air pollution in atmosphere.Inhaling them can increase the chance you'll have health problems.People with heart or lung disease, older adults and children are at greater risk from air pollution.	<ul style="list-style-type: none">To control air pollution, the vehicles, generators and machineries have to check and maintain regularly.Ensuring vehicles, compressor and generator are well maintained.
Soil	<ul style="list-style-type: none">Engine oil leaks, spills at diesel storage and during fuel refueling.	1	4	1	1	6	Very Low (Insignificant)	<ul style="list-style-type: none">The factory compound area was paved with concrete and hence, contamination due to the oil spillage at this area is insignificant.	<ul style="list-style-type: none">No Mitigation Measure
Noise and Vibration	<ul style="list-style-type: none">Generating noise from the production machinery	2	4	2	2	16	Low	<ul style="list-style-type: none">The factory not operate heavy machinerythe major noise source of CMP basic operation activities	<ul style="list-style-type: none">Should be build individual room like as generator room,Low noise equipment should be used

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
								<ul style="list-style-type: none"> such as cutting, stitching/finishing and packaging by respective machines. There is insignificant impact on surrounding environment. 	<ul style="list-style-type: none"> Should be provide the noise covering equipment or personal protective equipment (PPE)
Impact on Ecological Resources									
Flora and fauna on terrestrial and aquatic life	Operation of the shoe factory	1	4	1	1	6	Very Low Insignificant	<ul style="list-style-type: none"> Not Significant Impact on Ecological Resources 	<ul style="list-style-type: none"> No Mitigation Measure
Impact on Human									
Fire	<ul style="list-style-type: none"> Poor electrical installations Waste disposed area raw materials and chemical storage 	4	4	1	4	36	Moderate	<ul style="list-style-type: none"> Serious damage to property and even injury and death 	<ul style="list-style-type: none"> To provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening. The emergency fire alarms are installed at the factory for alerting the workers in case of fire. The main entrances and route for emergency cases of the factory

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									must not be blocked with materials or machines for fire emergency cases.
Occupational Safety	<ul style="list-style-type: none"> Accidental cases cause by operating machines. Unloading, mixing, cutting, pressing and packaging activities. Accidental cases of thermic fluid heater 	3	4	1	4	32	Moderate	<ul style="list-style-type: none"> Accident in workplace (physical injuries or even death) can occur during operation. 	<ul style="list-style-type: none"> First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.
Health	<ul style="list-style-type: none"> Influx of people 	3	4	1	4	32	Moderate	<ul style="list-style-type: none"> Overcrowded of population may be a fuel in infection of corona virus disease Change in demographic 	<ul style="list-style-type: none"> Provide the hand-wash basin, hand sanitizer and face masks and then specify the social distancing. Manage the drainage systems of the factory to prevent health risk

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
								structure, new diseases form immigrant workers • To cause a range of health problems ranging from stress, poor concentration, productivity losses in the workplace, and communication difficulties and fatigue from lack of sleep, to more serious issues	of the workers.
Waste Generation Impact									
Solid Waste	<ul style="list-style-type: none"> Residual pieces of fabric scraps from the production lines Waste from packaging materials Waste from kitchen, dormitory and office. 	3	4	1	4	32	Moderate	<ul style="list-style-type: none"> Surrounding environmental pollution and soil contamination 	<ul style="list-style-type: none"> Provides separate garbage bins at each building. All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area Final wastes should be disposed by using YCDC's service.
Liquid Waste	<ul style="list-style-type: none"> Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory. 	2	4	2	2	16	Low	<ul style="list-style-type: none"> Contamination of soil, surface water, ground water 	<ul style="list-style-type: none"> Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Hazardous Waste	<ul style="list-style-type: none"> Used oil and lubricant discharged from the maintenance of vehicles and machines. 	2	4	1	2	14	Very Low Insignificance	<ul style="list-style-type: none"> Reduce the risk of contamination from fuels, oils and hazardous wastes Response effectively to incident and accident 	<ul style="list-style-type: none"> Proper inspection and maintenance in storage of hazardous waste. Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. The empty chemical containers will hand over to suppliers for recycle or appropriate disposal The hazardous wastes are transported by specially licensed carriers and disposed in a licensed faculty (eg., DOWA and YCDC)
Natural Disaster									
Natural Hazard	<ul style="list-style-type: none"> Climate change and natural phenomenon might be happening of droughts, tropical storms, heat waves, earthquakes, floods, landslides and cyclone. 	4	4	3	3	33	Moderate	<ul style="list-style-type: none"> Disruptions of basic buildings, injuries to death, capital loss of investments in supply chain and changes in demographic situation of ecosystem. 	<ul style="list-style-type: none"> Providing relevant rescue trainings, preparing the preparedness plans such as firefighting plans, safety training and essential equipment, and comprising the natural disaster response team.

8. ENVIRONMENTAL MANAGEMENT PLAN

8.1. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

An Environmental Management System (EMS) is a framework that helps an organization achieves its environmental goals through consistent review, evaluation, and improvement of its environmental performance. The assumption is that this consistent review and evaluation will identify opportunities for improving and implementing the environmental performance of the organization. The EMS itself does not dictate a level of environmental performance that must be achieved; each organization's EMS is tailored to its own individual objectives and targets.

An EMS encourages an organization to continuously improve its environmental performance. The system follows a repeating cycle the organization first commits to an environmental policy, then uses its policy as a basis for establishing a plan, which sets objectives and targets for improving environmental performance. The next step is implementation. After that, the organization evaluates its environmental performance to see whether the objectives and targets are being met. If targets are not being met, corrective action is taken. The results of this evaluation are then reviewed by top management to see if the EMS is working. Management revisits the environmental policy and sets new targets in a revised plan. The company then implements the revised plan. The cycle repeats, and continuous improvement occurs.

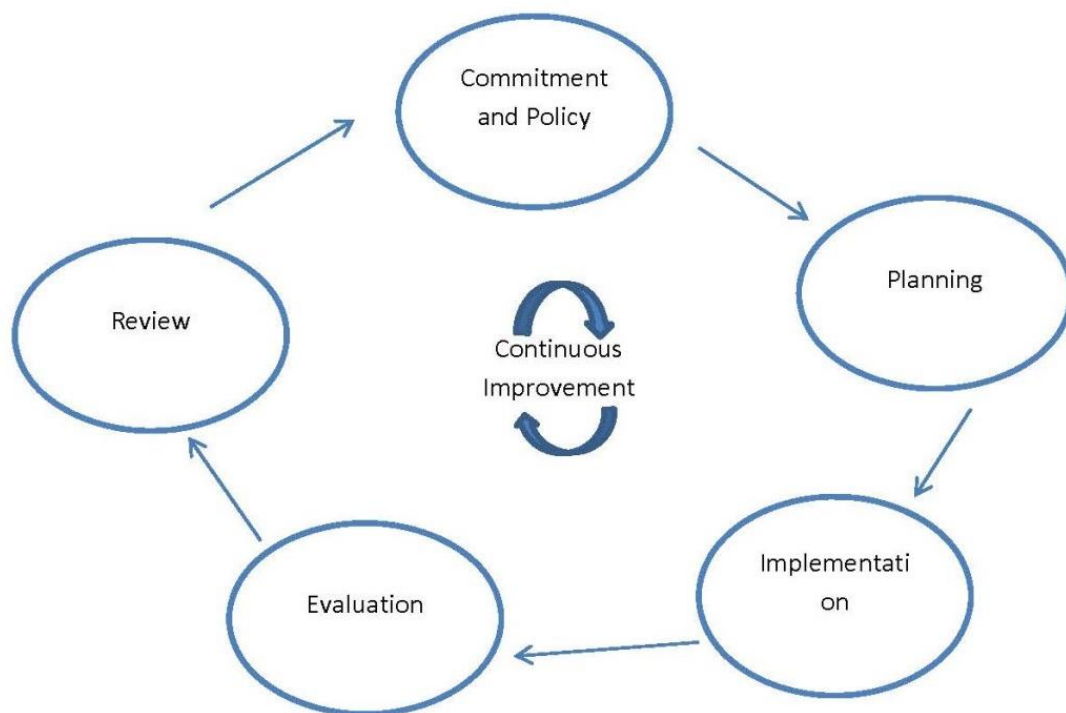


Figure 8-1 Continuous Improvement Circle

- **Commitment and Policy** – Top management commits to environmental improvement and establishes the organization's environmental policy. The policy is the foundation of the EMS.

- **Planning** – An organization first identifies environmental aspects of its operations. Environmental aspects are those items, such as air pollutants or hazardous waste that can have negative impacts on people and the environment. An organization then determines which aspects are significant by choosing criteria considered most important by the organization. For example, an organization may choose worker health and safety, environmental compliance, and cost as its criteria. Once significant environmental aspects are determined, an organization sets objectives and targets. An objective is an overall environmental goal (e.g., minimize use of chemical X). A target is a detailed, quantified requirement that arises from the objectives (e.g., reduce use of chemical X by 25% by September 1998). The final part of the planning stage is devising an action plan for meeting the targets. This includes designating responsibilities, establishing a schedule, and outlining clearly defined steps to meet the targets.
- **Implementation** – An organization follows through with the action plan using the necessary resources (human, financial, etc.). An important component is Employee training and awareness for all Employees. Other steps in the implementation stage include documentation, following operating procedures, and setting up internal and external communication lines.
- **Evaluation** – A company monitors its operations to evaluate whether targets are being met. If not, the company takes corrective action.
- **Review** – Top management reviews the results of the evaluation to see if the EMS is working. Management determines whether the original environmental policy is consistent with the organization's values. The plan is then revised to optimize the effectiveness of the EMS. The review stage creates a loop of continuous improvement for a company.

8.2. INSTITUTIONAL REQUIREMENT

In order to ensure the sound development and effective implementation of the IEE, it will be necessary to identify and define the responsibilities. The environmental management practices, procedures, and responsibilities are defined herein to get full compliance with the existing environmental policy, laws, rules and regulations of the Republic of the Union of Myanmar. The following entities should be involved in the implementation of this IEE:

Emerald Footwear MFG Company Limited: The proponent will be charged with the responsibility for ensuring that the proposed development has been accomplished in an environmentally sound manner. This can be achieved by inclusion of environmental specifications in the tender specifications, selection of environmentally conscious contractors, and supervision to ensure that the objectives of this IEE are met. The implementation of Initial Environmental Examination (IEE) process will prepare and follow up by appointed persons for health, safety, and environmental management under the instruction of management team of Emerald Footwear MFG Company Limited for IEE implementation facilities.

ECD (Yangon Region): The responsibility of ECD is to exercise general supervision and coordinating over all matters relating to the environment and to be instrumental in providing guidance for recognized regulatory frameworks.

Third-Party Environmental Consultant: The environmental consultant will have to ensure that the proposed IEE is up to date and is being followed properly by the proponent. Periodic audits of

the IEE will have to be done to ensure that its performance is as expected, by comparing with operating standards so that any corrective actions can be taken.

8.3. STRUCTURE AND RESPONSIBILITIES FOR THE IEE DEVELOPMENT AND IMPLEMENTATION

Emerald Footwear MFG Company Limited shall manage the development of the proposed project. The project proponent should appoint Health, Safety and Environment (HSE) issues throughout the duration of the project phases. HSE team is responsible for implementation and monitoring of IEE and Environmental Monitoring Plan as well as coordination with local authorities and the nearby communities. The HSE Team also makes regular review of IEE to cover all potential impacts, amendments and modifications. The HSE officer is responsible to the HSE components of the project and on matters relating to the implementation of the IEE throughout operation life.

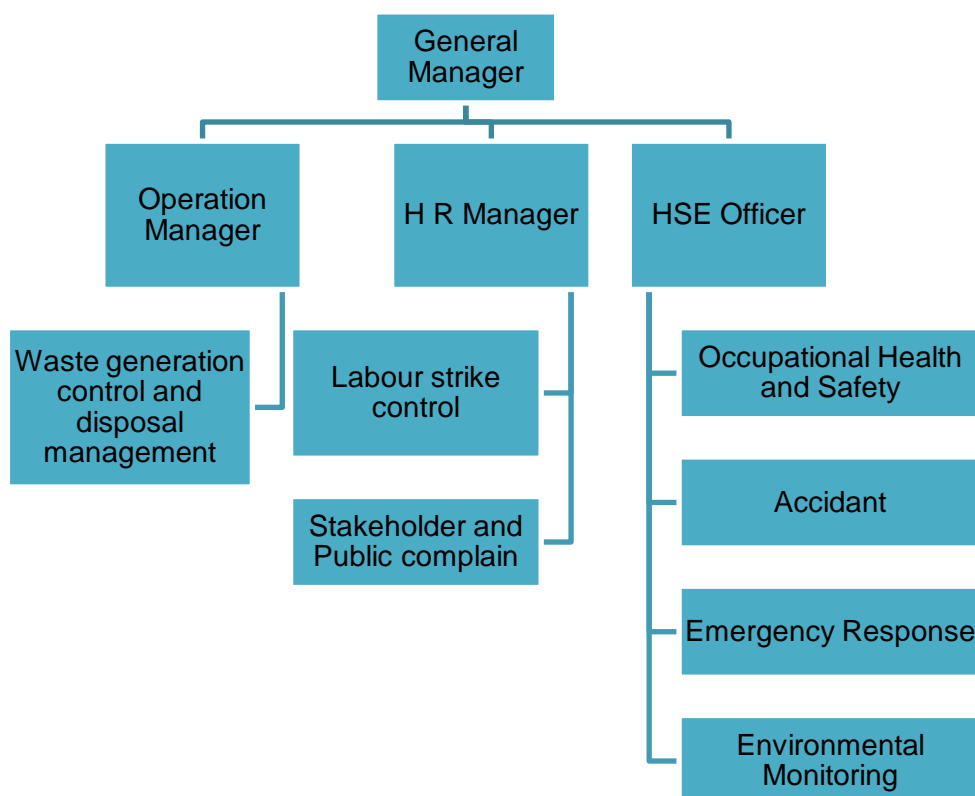


Figure 8-2 Organization Structure of IEE Implementation

Table 8-1 Responsibilities of HSE members

Roles	Responsibilities
General Manager	<p>The General Manager will be assisted by the Operations Manager and also the HR and HSE Officer. In terms of environmental protection commitments, the Operation Manager will be the key driving force and will be responsible for:</p> <ul style="list-style-type: none"> Establishing overall environmental direction and policy Ensuring the implementation of the IEE Ensuring investigation of all environmental incidents are reviewed and that reports are submitted on time Ensuring an effective system of internal and external communication is in place Providing advice regarding the environmental program

Roles	Responsibilities
Operation Manager	<p>The Operation Manager will assist the General Manager in looking into the overall environmental matters during the operational phase of the Project. The Operation Engineer will also be responsible for:</p> <ul style="list-style-type: none"> • Adherence to the overall environmental direction and policy • Ensuring the implementation of the recommended actions in the investigation of all environmental incidents • Managing resources for operation wastes
H R Manager	<p>The HR Manager will carry out the day-to-day management of workers and social issues in the factory. The HR Manager will be responsible for:</p> <ul style="list-style-type: none"> • Assisting the management in publicising and implementing corporate and local policies, objectives and programs • Maintaining key environmental-related documents and information • Communicating/ liaising with the local authorities on environmental issues
HSE Officer	<p>The HSE Officer will be the key person in charge of all environmental matters pertaining to the site. The HSE Officer will be responsible for:</p> <ul style="list-style-type: none"> • Coordinating the implementation of environmental programs, including monitoring of the project site environmental performance • Performing periodic internal environmental audits and inspections to ensure compliance with the legal environmental requirements • Ensure a monitoring system is in place to track and report all health, safety and environmental incidents; • Carry out a thorough initial site inspection of environmental controls prior to work commencement; • Record and provide a written report to the General Manager and production team of non-conformances with the IEE and require the HR Manager to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the IEE.

8.4. ENVIRONMENTAL MANAGEMENT PROCESS

The Initial Environmental Examination (IEE) prepared for the proposed project covers the anticipated impacts of the said project, mitigation measures, management and monitoring plans during each of the phases:

- Operation and
- Decommissioning

The detailed IEE based on the project activities is seen in Table 8-2 and Table 8-3.

Table 8-2 Environmental management process during operation phase

List	Project Activities	Potential Impact	Mitigation measure	Estimated Cost (Kyats)	Inspection Type	Frequency	Responsible person
1	Cooking, air conditions, use of pesticide from canteen and dormitory	Air pollution, water pollution	Installation of exhaust fans in canteen, use of masking agents and efficient ventilation system in factory, use of air-con system, putting indoor potted plants for air refreshment of office,	500,000/year	Regular check	Monthly	Operation Manager and HR Manager of Emerald Footwear MFG Company Limited
2	Storage of raw materials and chemicals	Air pollution, water pollution,	Separate storage and disposal areas with good ventilation, adequate cover for storage areas, use of environmentally friendly materials, obtaining material safety data sheet (MSDS), immediate clean for leakage and spillage	500,000/year	Restrictions and regular check	Daily	Operation Manager and HSE Officer of Emerald Footwear MFG Company Limited
3	Vehicles movement and diesel generators	Air pollution, water pollution, nuisance	Adopting traffic demand management, permitting vehicles having valid pollution under control (PUC), use of noise enclosures for diesel generators	200,000/year	Regular check	Monthly	Operation Manager and HR Manager of Emerald Footwear MFG Company Limited
4	Employees	Health and safety problems, accidents, ground water depletion,	Providing PPE and first aid facilities, conjunctive use of ground water and municipal water, application of water saving devices & water conservation measures, rain and storm water harvesting, effective sanitary system, application of sewage treatment plant, firefighting and protection system, adequate clear aisles and exits, safe wiring and electrical system, satisfactory controls of noise and temperature	2,000,000/year	Regular check	Monthly	Operation Manager, HR Manager and HSE Officer of Emerald Footwear MFG Company Limited
5	Hazardous and general wastes disposal areas, septic	Soil pollution, water pollution, air pollution	Final disposal of waste to YCDC, keeping hazardous waste in good container at isolated storage areas,	900,000/year	Regular check	Monthly	Operation Manager, HR Manager and HSE

List	Project Activities	Potential Impact	Mitigation measure	Estimated Cost (Kyats)	Inspection Type	Frequency	Responsible person
	tank and sewage system		installation of fire extinguisher near storage of hazardous waste, disposal of waste by reuse, frequent cleaning and pumping out of septic tank, sufficient toilets				Officer of Emerald Footwear MFG Company Limited
6	Influx of people	Health and social risks	preventive actions and adequate health facilities	1,000,000/year	Arrangement for requirements, restriction and regular check, awareness program	Monthly	Operation Manager, HR Manager and HSE Officer of Emerald Footwear MFG Company Limited
7	Project implementation	Largely positive impacts					Emerald Footwear MFG Company Limited

Table 8-3 Environmental management process during decommissioning phase

List	Project Activities	Potential Impact	Mitigation measure	Estimated Cost (Kyats)	Inspection Type	Frequency	Responsible
1	Decommissioning of building	Nuisance, air pollution, noise pollution, loss of aesthetic feature of land, soil contamination, water pollution	Spraying water over the area, installation of temporary cover, occupational preventative measures, keeping temporary noise barriers, use of noise enclosures for diesel generators, rotation of workers in noise area, providing hearing protective wears to workers,	4,500,000	Giving information about potential impacts and restrictions, regular check	Daily check	HSE Officer of Demolish Company and Land Owner
2	Transportation and disposal of demolished materials from site	Air pollution, noise pollution, soil contamination, water pollution	Usage of vehicles having efficient engines & exhaust system, installation of temporary cover, reuse and recycling waste	2,000,000	The same as above	Daily	HSE Officer of Demolish Company and Land Owner

List	Project Activities	Potential Impact	Mitigation measure	Estimated Cost (Kyats)	Inspection Type	Frequency	Responsible
3	Operation of machinery and equipment	Noise pollution, soil contamination, water pollution	Usage of machines & equipment having efficient engines & exhaust system and properly designed control system of equipment	550,000	The same as above	Daily	HSE Officer of Demolish Company and Land Owner
4	Workers and staff	injury or mortality	Application of temporary toilets, separate septic tanks and rubbish bins, disposal of sewage to municipal sewer line, use of personal protective equipment, providing first aid facilities, site fencing & safety signboards	3,000,000	Arrangement for requirements, restriction and regular check	Daily	Demolish Company and Land Owner

8.5. ENVIRONMENTAL MONITORING PLAN AND REPORTING

The IEE cell members responsible may conduct daily, weekly or monthly general inspections of the project area and facilities. The objectives are to identify non-compliances to IEE. Table 8-4 is provided the environmental monitoring schedule for Emerald Footwear MFG Company Limited. The factory submits monitoring report to the Ministry not less frequently than every six (6) months, as provided in a schedule in the IEE,

Table 8-4 Environmental Monitoring Plan During Operation Phase

Issues	Parameter	Frequency	Estimated Cost (Kyats)	Area to be monitored	Responsible Person/Organization
Common	Monitoring of mitigation measures	Yearly (3 years after operation)	3,000,000/year	The project	(General Manager) Emerald Footwear MFG Company Limited
Air quality	SO ₂ , NO ₂ , CO, O ₃ , PM _{2.5} , PM ₁₀	Biannually monitoring and reporting to ECD (first 3 years after operation)	1,000,000/year	Point in the factory (16°53'32.05"N 96°15'3.96"E)	(HSE Officer) Emerald Footwear MFG Company Limited
Noise Quality	Noise level in decibel (dBA)	Once per month	500,000/year	Point in the factory (16°53'33.18"N 96°15'4.54"E)	(HSE Officer) Emerald Footwear MFG Company Limited
Light intensity	Illuminance	Monthly	200,000/year	Sewing cutting and QC areas	(HSE Officer) Emerald Footwear MFG Company Limited
Waste Generation	Solid waste, Liquid waste and Hazardous waste	weekly	840,000/year (35,000/track load)	Disposal area in the factory compound (Recycle store and waste store)	(Operation Manager) Environmental Management Team of Emerald Footwear MFG Company Limited
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	600,000/year	At the factory	(Operation Manager, HR Manager and HSE Officer) Emerald Footwear MFG Company Limited

Table 8-5 Environmental Monitoring Plan during Decommissioning Phase

Issues	Parameter	Frequency	Estimated Cost (Kyats)	Area to be monitored	Responsible Person/Organization
Air quality	SO ₂ , NO ₂ , CO, O ₃ , PM _{2.5} , PM ₁₀	One time during this phase	500,000	A suitable point of project site	Land Owner
Noise	Noise level in	One time during this phase	150,000	A suitable point	Land Owner

	decibel (dBA)	phase		of project site	
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8.6. CAPACITY BUILDING AND TRAINING PLAN

The emergency preparedness is vital, as quick and correct response is necessary in case of emergency to reduce injuries, harm and other damage. Care should be taken in during processing activities in order to prevent synthetic errors and accidental cases (e.g., electricity shock and fire hazards).

The emergency response plans must be established for handling all foreseeable emergencies in the workplace and must provide the following;

8.6.1. Assignment of responsibilities

All senior staff such as a production director or safety officer should assign to lead the emergency response team and charged with the duties of (1) assessing the emergency and taking necessary actions (2) overseeing the implementation of the emergency response plan (3) organizing regular drill (4) ensuring all emergency equipment is well maintaining.

8.6.2. Emergency procedures

Emergency procedures are operating instructions for employees to follow in emergency case

About work safety in the concerned processing, the management team should

- Identify and list out all possible emergency situations in the workplace
- Assess the effects and impacts of the emergency situations
- Establish emergency response plans
- Provide and maintain emergency equipment and other necessary resources
- Ensure that staff are familiarized with the arrangements in case of emergencies by providing procedural instructions and employee training and organizing drills

Table 8-6 List of Emergency Contact Numbers

1.	Fire Station (South Dagon Township)	01-1590071	Aung Zayya Road, South Dagon Township, Yangon
2.	Red Cross (South Dagon Township)	01-591507	Pyi Htaung Su Road, Industrial Zone (3), South Dagon Township, Yangon
3.	Civil Hospital (South Dagon Township)	01-590074	Pale Yadanar Road, Dagon Myothit (South) Township, Yangon

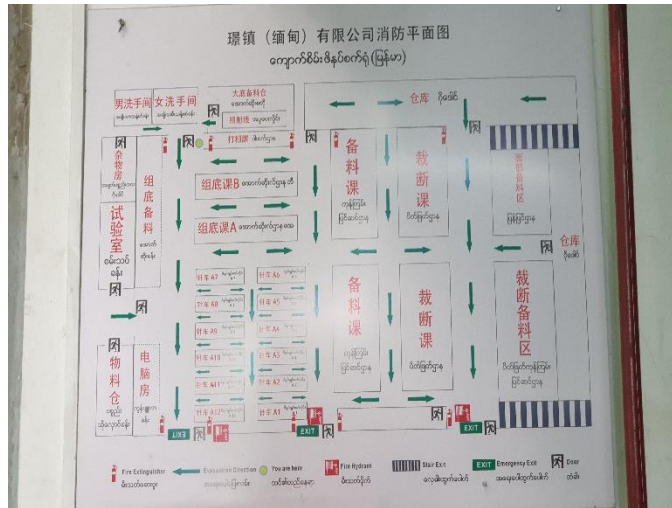


Figure 8-3 Security Layout Plan of Emerald Footwear MFG Company Limited

8.6.3. Training for Emergencies

The type, amount and frequency of training vary, depending upon the task's employees proposed to do. Although training must provide to employees at least annually, safety meetings and drills shall conduct at more intervals.

Regardless of the specific type of facility, training should include, though not be limited to the following;

- ✚ Hazard recognition and prevention (fire, explosion, etc.)
- ✚ Proper use of fire extinguishers
- ✚ Emergency reporting procedures
- ✚ Preventive maintenance
- ✚ Using method of Rubber wood log sawing machines
- ✚ Hazardous materials spill response
- ✚ First Aid

8.6.4. Fire Prevention and Protection

The fire prevention and protection program must address the following topics:

Prevention; policies, practices and procedures designed to keep the conditions necessary for a fire from coming together

- Hot work permits
- Lockout/tag out policies
- Design specifications for storage of flammable materials

Severity reduction; policies, practices and procedures designed to reduce the spread of fire and end the fire.

- Emergency plans
- Alarm systems
- Portable fire extinguishers
- Fire Protection Equipment

Cleanup; policies, practices and procedures designed to return the affected area to an operational level and reduce other losses created by improper cleanup

- First aid
- Removal of debris to an appropriate waste site
- Equipment and facility repair

8.6.5. Fire Protection Equipment

1. Explosion Suppression Systems: Explosion suppression systems should be utilizing in unusually hazardous areas such as elevator legs, boots and head, or in areas such as bins, distributors and tanks.
2. Portable Fire Extinguishers: All buildings within a facility must have fully charged and operable portable fire extinguishers. If employees are required to use portable extinguishers or other firefighting equipment against incipient fires, they are need to be train to use the equipment. Training must include the following:
 - Correct type of extinguisher to use on different classes of fire
 - Proper techniques for use of the equipment to extinguish a fire
3. Standpipes and Hoses: All areas within a facility that are above 75 feet from ground level and in which combustible materials other than grain are stored should have wet or dry standpipes and hoses installed.
4. Automatic Sprinkler Systems: Automatic sprinkler systems are recommending in areas containing combustible materials.
5. Fire Hydrants: All grain and feed mill facilities should have adequate public or private fire hydrants on site. Each fire hydrant should have an adequate water supply.

8.6.6. Fire Safety and Evacuation Plan

Fire Evacuation plans should include the following information

- Emergency escape routes must be clearly shown on floor plans and workplace maps
- Employers must know that their employees know the emergency escape routes
- Procedures for employees who must remain to operate critical equipment before evacuating
- Identification and assignment of personnel responsible for rescue or emergency medical aid

Fire Safety Plans should include the following information:

1. Procedure for reporting a fire or other emergency
2. Site plans indicating the following
 - The Occupancy assembly point
 - The locations of fire hydrants
 - The normal routes of fire department vehicles access
3. Floor Plans identifying the locations of the following
 - Exits
 - Primary evacuation routes
 - Secondary evacuation routes
 - Accessible egress routes
 - Areas of refuge

- Exterior area for assisted rescue
- Manual fire alarm boxes
- Portable fire extinguishers
- Occupant-use hose stations
- Fire alarm annunciators and controls

The following American National Fire Fighting Association (NFFA) Standards must be following.

Table 8-7 American National Fire Fighting Association (NFFA) Standards

No.	Parameters	Proposed Capacity	Remark
1	Fire water flow	14 bars	
2	Deluging rate	12.0 liters/m2/min	
3	Foam rate	10.0 liters/m2/min	
4	Maximum water pressure	190 liters/min	For storage area

Emergency evacuation Drill: An exercise performed to train staff and occupants and to evaluate their efficiency and effectiveness in carrying out emergency excavation procedures

Employee Training and Response Procedures: Employee shall train in the fire emergency procedure described in their fire evacuation and fire safety plans and training should base on these plans;

Frequency: Employee shall receive training in the contents of fire safety and evacuation plans and their duties as part of new employee orientation and at least annually thereafter. Records shall be kept and make available to the fire code official upon request.

Employee Training Program: Employee should train in fire prevention, evacuation and fire safety in accordance with the following sections.

Fire Prevention Training - Employee shall apprise of the fire hazards of the materials and processes to which they are exposed. Each employee should instruct in the proper procedures for preventing fires in the conduct of their assigned duties

Evacuation Training – Employees should familiar with the fire alarm and evacuation signals, their assigned duties in the event of an alarm or emergency, evacuation routes, areas of refuge, exterior assembly areas and procedures for evacuation

Fire Safety Training – Employee assigned fire-fighting duties shall be train toiled to know the locations and proper use of portable fire extinguishers or other manual fire-fighting equipment and the protective clothing or equipment required for its safe and proper use.

8.6.7. Site Fire Control

1. Alert other people through fire alarm
2. If small, control by using an extinguisher
3. Contact fire brigade if not under controllable circumstance
4. Attend to human life in immediate danger
5. For electrical fires turn off power before fighting

6. Once out of the building, stay out. Do not allow people to go back into the burning building to collect valuables. While evacuating the building, close doors (but do not lock) to slow down the spread of fire
7. Obey to all instructions
8. Specify to an emergency evacuation area (Assemblage Point)

8.6.8. Employee Information and Training

Employees must inform about any operations in their work area where hazardous chemicals or materials are present. They must need to know about the locations and availability of the hazard communication program, list of chemicals and SDSs. Employees must receive training on the following:

- Methods for detecting the presence or release of a hazardous chemical, such as monitoring devices and the visual
- appearance or odor of the chemical
- Physical and health hazards of chemicals in their work area
- How to protect themselves using work practices, emergency procedures and personal protective equipment
- How to interpret the information on the labels and MSDS.

8.6.9. Health and Safety Training Plan for Worker

Health and Safety Training plan currently used and provided in Emerald Footwear MFG Company Limited to all employees and staff workers by trainings internally and externally. Specific trainings are recommending and conducting according to the health and safety guidelines to enhance worker's health and to prevent all potential risks and hazards might occur in the factory. All required trainings related to health and the respective departments propose safety or operational parts, top management makes decision and HR organizes and conducts the trainings.

Table 8-8 Training Plan Used in Emerald Footwear MFG Company Limited

No.	Health and Safety Guidelines	Training needs
1.	Management	General fire and emergency response plan, evacuation. All training materials and procedures covering health and safety for workers and employees
2.	Machine safety and noise management	Training for machine operations to all operators Use of PPE and proper use of any necessary protection Maintenance and Emergency procedures
3.	Environment safety	Understanding and training on recognition and maintenance not to affect environment
4.	Material storage and safety	Safety use of related devices, chemicals and machines Use of necessary protections in working areas

		Sanitation work
5.	Fire Safety	Firefighting and evacuating training and practices Firefighting materials/ devices use
6.	First Aid	first aid / CPR/ AED training from providers (Outsource) training on hazard of pathogens

8.7. GRIEVANCE REDRESS MECHANISM (GRM)

People who live near the project affected area or stakeholders can complain about the problems and impacts that they suffer; they can complain through Grievance Committee, which includes the responsible persons of Emerald Footwear MFG Company Limited representative from Industrial Zone (Dagon Myothit South) and representative from General Administration Department (Dagon Myothit (South) Township). Small issues will be solved at the Grievance Committee stage and other unsolved problems will be submitted to higher responsible authorities and finally the responsible person decided by the court in legal terms. The following diagram (Figure 8-4) show steps of Grievance Redress Mechanism of Proposed Factory Project.

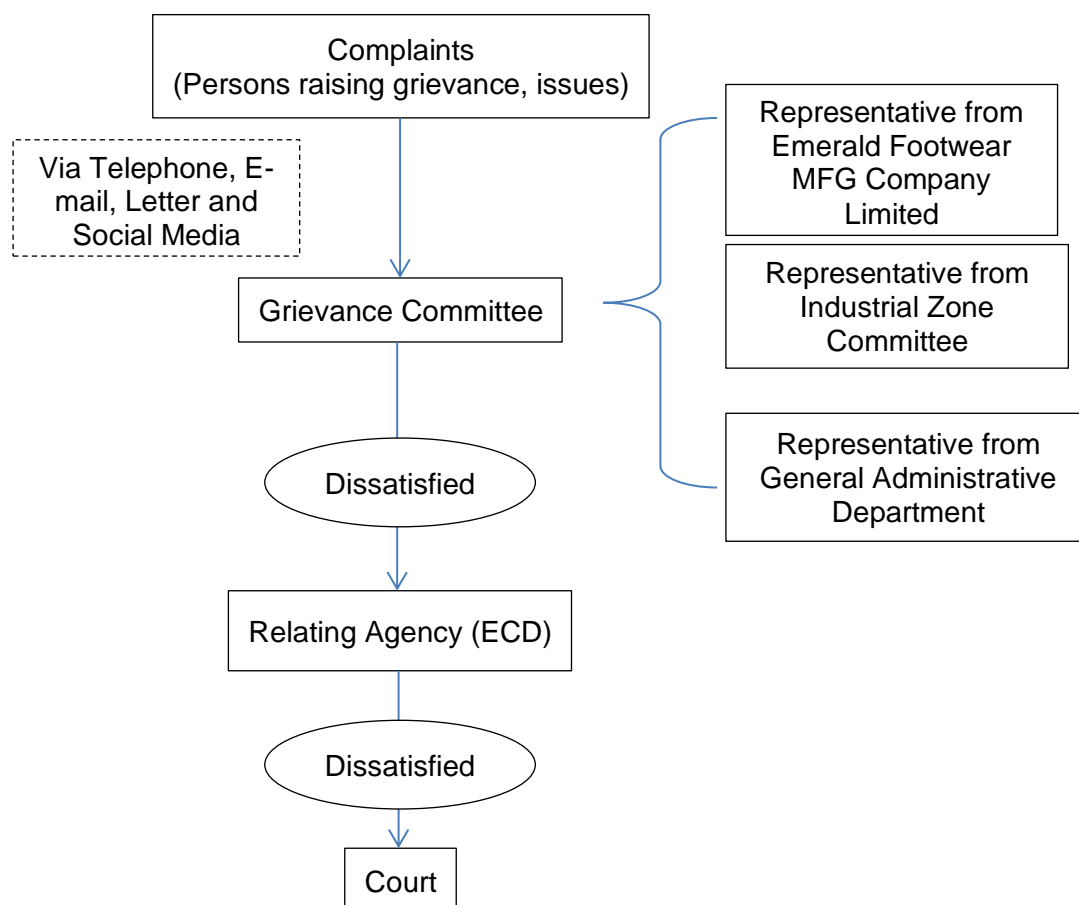


Figure 8-4 Grievance Redress Mechanism flow diagram

9.

9. PUBLIC CONSULTATION AND DISCLOSURE

9.1. PUBLIC CONSULTATION PROCESS

This chapter presents public consultation and information disclosures during the remaining period of the Initial Environmental Examination (IEE). Public consultation is the activities for gathering opinions and suggestions from related stakeholders. It will help to improve the implementation of the project, set the scope for the environmental impact assessment and development mitigation measures, which will be reported in the project's IEE report.

Public consultation conducted as part of this IEE project has three purposes:

- 1) Information the stakeholders about the Project, environmental and social issues related to project construction and operation, and mitigation measures to minimize environmental and social impacts;
- 2) Considering the views, concerns, and perceptions of stakeholders, communities and individuals that could be affected by the project or who otherwise have an interest in the project;
- 3) Participation and partnership where issues and needs are jointly discussed and assessed.

Although the public consultation is the effective way to achieve the information purpose, to seek views of the participation and partnership purpose, it cannot held due to the current condition of Covid-19 diseases which started spreading in Myanmar since April, 2020.

During the preparation of this report, the second wave of Covid-19 disease becomes serious in Yangon. The Ministry of Health and Support declared to avoid gathering more than 5 people to avoid close contact and to prevent spreading of disease. Thus, the project condition, the present environmental condition and the management plan are through the social media of Myanwei Environmental Solution Company Limited Facebook page (https://drive.google.com/file/d/1c9e3NP5na19e3NP5na1YcN2mKMrl3OXjwOn7VAyn8/view?usp=drive_sdk) declared in 27th January, 2021 due to current situation. The suggestion, complain and comments from the public, organization and stakeholder are warmly welcome and accept via mailing, comment, telephoning and messengers.

Details of project information disclosure in the public consultation PowerPoint presentation (Appendix E) which is prepared in Myanmar language includes as follows;

- Objective of IEE
- Project Description
- Existing Environment and Monitoring
- Potential Impact and Mitigation measures
- Cooperative Social Responsibility (CSR)



Figure 9-1 Announcement Post of Proposed Project at Social Media

9.2. CORPORATE SOCIAL RESPONSIBILITY (CSR) PLAN

The CSR activities have the objective to uplift quality of life and gain favorable relations from all communities in the operation area. The CSR program for Emerald Footwear MFG Company Limited

consists of three main sectors; Health, Education and Community Development Sector. CSR activities are conducted in compliance with MIC's guideline for implementation of CSR program.

Emerald Footwear MFG Company Limited will contribute 2% of our Net Profit to social welfare activities that will help society and country of Myanmar. Our social welfare activities shall include training of our employees such as on job training to be more qualified, language training on weekends with experienced teachers and providing necessary healthcare such as medical checkups and giving proper medical knowledge about diseases and its prevention. Part of our CSR activity such as donations will also contribute to public school around our factory Table 9-1.

Table 9-1 CSR Plan at Emerald Footwear MFG Company Limited

No	Particle	Contribution	Estimated Cost (Kyats)
1	Public school	0.5%	2,500,000/year
2	Non-profit training	1%	5,000,000/year
3	Employees healthcare	0.5%	2,500,000/year

9.2.1. Public School

We will contribute 0.5% of our net profit to the public school near the factory to be a part of creating the better community. We will also work together with the school to understand more about the needs and we will also ensure that our contributions will be used in the most effective and efficient way for the society.

9.2.2. Non-profit Training

We will contribute 1% of our net profit for the trainings of our Employees. Our trainings include job-related trainings, language trainings and safety trainings. The main objective of our trainings is that we want our manufacturing of footwear and semi footwear products with their work but also improving their other skills such as language and promoting knowledge about safety measures and occupational health Employees to be not only become more productive and more qualified.

9.2.3. Healthcare

One of our main concerns is the well-being of our employees. We will contribute 0.5% of our net profit for the healthcare, which includes medical checkup for the employees and providing health education to our workers.

10. CONCLUSION & RECOMMENDATION

10.1. CONCLUSION

Initial Environmental Examination (IEE) has been prepared for Emerald Footwear MFG Company Limited is located at Plot No. (37), Myay Taing Block No.144, Industrial Zone, Dagon Myo Thit (South) Township, Yangon Region. The main objective of the study is focused specially on the required environmental management measures or creating environmentally friendly workplace. An IEE has been carried out for the factory according to the requirement of the proponent as it has been made for manufacturing of various kind of footwear and semi footwear products on CMP basis.

Thus, the factory management can take proper mitigation steps against adverse environmental impacts by following this IEE. The necessary measure to mitigate impact regarding different environmental parameter such as air, water, waste, noise has been proposed in this IEE.

However, all necessary implementation measures to mitigate adverse environmental, health and safety impacts have already been taken to meet National Environmental Quality (Emission) Guideline (2015). On the other, the factory has positive impacts in terms of environmental in the operation phase. Further, this will indirectly help in boosting up the national economic condition through foreign investment. An outline of IEE has been given in the present report to mitigate/enhance the impacts, which occurs during operation phase of the factory.

The effective implementation of the mitigation measures proposed will ensure towards good environmental management within the proposed project area. Furthermore, the environmental monitoring plan prepared as part of the IEE will provide adequate opportunities to address any residual impacts during the operation phase.

In conclusion, it has been figured out that, the proposed shoe factory is going to generate local employment opportunities and enhance capabilities and working skills of employees. Consequently, their socio-economic standard is expected to be improved and undertaking corporate social responsibilities (CSR) as recommended. The study further concluded that positive impacts will be of immense benefit to the local community and national development as well.

10.2. RECOMMENDATION

This is recommended that;

- All appropriate environmental management measures detailed in this report, together with any other environmental management commitments should be implemented throughout the entire life of the factory
- Solid wastes and liquid wastes need to dispose according to YCDC rules and regulation
- Workers should be provided proper training and it should be ensured that workers use PPE during factory operation area.
- Daily, monthly and annual action plan shall be formulated based on this IEE and practiced at operation level.
- Keep full records of environmental management activities and present to annual independent third-party environmental audit.

- Abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.


Finally, the proponent should follow the comments and suggestions made by ECD after reviewing this IEE report. Once concerned authorities approve IEE, effective implementation of IEE by the project proponent is essential. The proponent should abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

11. REFERENCE

- [1] General Administrative Department (Dagon Myo Thit South Township), Dagon Myothit (South) Township Data (2019).
- [2] Hla Hla Aung, Potential Seismicity of Yangon Region (Geological Approach), "Yangon Surface Displacement as Detected by Insar Time Series Analysis" July 2011.
- [3] Ministry of Natural Resources and Environmental Conversation (MONREC), "Environmental Impact Assessment Procedure" December 2015.
- [4] Ministry of Natural Resources and Environmental Conversation (MONREC), "National Environmental Quality (Emission) Guidelines" December 2015.
- [5] Specifications for accident prevention signs and tags, regulations (standards 29-CFR), Occupational Safety and Health Administration.
- [6] [https://weatherspark.com/y/112503/Average-Weather-in-Yangon-Myanmar-\(Burma\)-Year-Round](https://weatherspark.com/y/112503/Average-Weather-in-Yangon-Myanmar-(Burma)-Year-Round).

APPENDIX A


Company Document of Emerald Footwear MFG Company Limited



THE REPUBLIC OF THE UNION OF MYANMAR

The Myanmar Investment Commission


PERMIT



Permit No. 1064 /2016 Date th 26 January 2016

This Permit is issued by the Myanmar Investment Commission according to the section 13, sub-section (b) of the Republic of the Union of Myanmar Foreign Investment Law-

- (a) Name of Investor/Promoter MR. HSUEH, CHUNG-KUN
- (b) Citizenship TAIWANESE
- (c) Address B AREA OF RATTAN FACTORY, NO.22, BAN ZHANG LANE 1, BAO TUN DISTRICT, HOU JIE TOWN, DONG GUAN CITY, GUANGDONG PROVINCE, CHINA
- (d) Name and Address of Principal Organization LEGEND TEAM INC, 1ST FLOOR, # 5 DEKK HOUSE, DE ZIPPORA STREET, PROVIDENCE INDUSTRIAL ESTATE, MAHE, REPUBLIC OF SEYCHELLES
- (e) Place of incorporation REPUBLIC OF SEYCHELLES
- (f) Type of Investment Business MANUFACTURING OF ALL KINDS OF FOOTWEAR AND SEMI FOOTWEAR PRODUCTS ON CMP BASIS
- (g) Place(s) at which investment is permitted PLOT NO. 37, MYAY TAING BLOCK NO. 144, INDUSTRIAL ZONE, DAGON MYOTHIT (SOUTH) TOWNSHIP, YANGON REGION
- (h) Amount of Foreign Capital US\$ 1.32 MILLION
- (i) Period for Foreign Capital brought in WITHIN ONE YEAR FROM THE DATE OF ISSUANCE OF MIC PERMIT
- (j) Total amount of capital (Kyat) EQUIVALENT IN KYAT OF US\$ 1.32 MILLION
- (k) Construction period 1 (ONE) YEAR
- (l) Validity of investment permit 10 YEARS
- (m) Form of investment WHOLLY FOREIGN OWNED
- (n) Name of Company incorporated in Myanmar EMERALD FOOTWEAR MFG COMPANY LIMITED


 Chairman
 The Myanmar Investment Commission

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်
ခွင့်ပြုမိန့်



ခွင့်ပြုမိန့်အမှတ် ၁၀၆၄/၂၀၁၆

၂၀၁၆ ခုနှစ် ဇန်နဝါရီလ ၂၆ ရက်

ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု ဥပဒေပုဒ်မ-၁၃၊ ပုဒ်မခွဲ(ခ)
အရ ဤခွင့်ပြုမိန့်ကို မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်က ထုတ်ပေးလိုက်သည် -

- (က) ရင်းနှီးမြှုပ်နှံသူ/ကမကထပြုသူအမည် MR. HSUEH, CHUNG-KUN
- (ခ) နိုင်ငံသား TAIWANESE
- (ဂ) နေရပ်လိပ်စာ B AREA OF RATTAN FACTORY, NO.22, BAN ZHANG LANE 1, BAO TUN DISTRICT, HOU JIE TOWN, DONG GUAN CITY, GUANGDONG PROVINCE, CHINA
- (ဃ) ပင်မအဖွဲ့အစည်းအမည်နှင့် လိပ်စာ LEGEND TEAM INC., 1ST FLOOR, # 5 DEKK HOUSE, DE ZIPPORA STREET, PROVIDENCE INDUSTRIAL ESTATE, MAHE, REPUBLIC OF SEYCHELLES
- (င) ဖွဲ့စည်းရာအရပ် REPUBLIC OF SEYCHELLES
- (စ) ရင်းနှီးမြှုပ်နှံသည့်လုပ်ငန်းအမျိုးအစား CMP စနစ်ဖြင့် ရှားဖိနှပ်အမျိုးမျိုးနှင့် ဖိနှပ် အစိတ်အပိုင်းများ ထုတ်လုပ်ခြင်း လုပ်ငန်း
- (ဆ) ရင်းနှီးမြှုပ်နှံသည့်အရပ်ဒေသ(များ) မြေကွက်အမှတ် ၃၇၊ မြေတိုင်းရပ်ကွက်အမှတ် ၁၄၄၊ စက်မှုဇုန်၊ ဒဂုံမြို့သစ် (တောင်ပိုင်း)မြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး
- (ဇ) နိုင်ငံခြားမတည်ငွေရင်း ပမာဏ အမေရိကန်ဒေါ်လာ ၁.၃၂ သန်း
- (ဈ) နိုင်ငံခြားမတည်ငွေရင်းယူဆောင်လာရမည့်ကာလ ခွင့်ပြုမိန့်ရရှိသည့်နေ့မှ (၁) နှစ် အတွင်း
- (ည) စုစုပေါင်း မတည်ငွေရင်းပမာဏ(ကျပ်) အမေရိကန်ဒေါ်လာ ၁.၃၂ သန်း နှင့် ညီမျှသော မြန်မာကျပ်ငွေ
- (ဋ) တည်ဆောက်မှုကာလ ၁ နှစ်
- (ဌ) ရင်းနှီးမြှုပ်နှံမှုခွင့်ပြုသည့် သက်တမ်း ၁၀ နှစ်
- (ဍ) ရင်းနှီးမြှုပ်နှံမှုပုံစံ ရာခိုင်နှုန်းပြည့်နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု
- (ဎ) မြန်မာနိုင်ငံတွင် ဖွဲ့စည်းမည့် ကုမ္ပဏီအမည်
EMERALD FOOTWEAR MFG COMPANY LIMITED

ဥက္ကဋ္ဌ
မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်
၆၁

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THE REPUBLIC OF THE UNION OF MYANMAR
MYANMAR INVESTMENT COMMISSION
 No.1, Thitsar Road, Yankin Township, Yangon

Our ref : DICA-3/FI-1291/2016(147 - c)

Tel: 01- 658128

Date : 26th January 2016

Fax: 01-658141

Subject: Decision of the Myanmar Investment Commission on the Proposal for "Manufacturing of all kinds of Footwear and Semi Footwear Products on CMP Basis" under the name of "Emerald Footwear Mfg Company Limited".

Reference: Emerald Footwear Mfg Company Limited Letter dated (11-11-2015).

1. The Myanmar Investment Commission, at its meeting (1/2016) held on (15-1-2016), had approved that the proposal for investment in "Manufacturing of all kinds of Footwear and Semi Footwear Products on CMP Basis" under the name of "Emerald Footwear Mfg Company Limited" submitted by Legend Team Inc (90 %) from Republic of Seychelles and Mr. Lin, Chu-Chi (10 %) from the Republic of China as a wholly foreign owned investment.
2. Hence, the "Permit" is herewith issued in accordance with Chapter VII, section 13(b) of Foreign Investment Law and Chapter VIII, Rule 49 of the Foreign Investment Rules relating to Foreign Investment Law. Terms and conditions to the "Permit" are stated in the following paragraphs.
3. The permitted duration of the project shall be initial 10 (ten) years and extendable 5 (five) years in 2 (two) times commencing from the date of the issuance of Myanmar Investment Commission's permit. The term of the Lease Agreement for Land and Buildings shall be initial 10 (ten) years and extendable 5 (five) years in 2 (two) times from the date of signing of the Lease Agreement between U Maung Maung Hlaing (Lessor) and Emerald Footwear Mfg Company Limited (Lessee) subject to the approval of Myanmar Investment Commission. On the expiry of the Lease period, the Lessee shall transfer the leased land and buildings to the Lessor within 6 (six) months in good condition, ground damages having been refilled and repaired.

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- 2 -

4. The annual rent for the land and buildings shall be US\$ 29,529 (United States Dollar twenty-nine thousand, five hundred and twenty-nine only) calculated at the rate of US\$ 5.00 per square meter per year of the uncovered area measuring 1,335.8685 square meter and calculated at the rate of US\$ 7.00 per square meter per year of the covered area measuring 3,264.19 square meter. The rate of rent shall be revised in view of prevailing land lease rates after every 5 (five) years and increase of the rent shall not be more than 10 % of the preceding annual rent.

5. In issuing this "Permit," the Commission has granted the following exemptions and reliefs as per Chapter XII, section 27(a), (h), (i) and (k) of Foreign Investment Law. Other exemptions and reliefs under section 27 shall have to be applied upon the actual performance of the project:-

- (a) As per section 27(a), income tax exemption for a period of five consecutive years including the year of commencement on commercial production;
- (b) As per section 27(h), exemption or relief from customs duty or other internal taxes or both on machinery, equipment, instruments, machinery components, spare parts and materials used in the business, which are imported as they are actually required for use during the period of construction of business;
- (c) As per section 27(i), exemption or relief from customs duty or other internal taxes or both on raw materials imported for production for the first three-year after the completion of construction of business;
- (d) As per section 27(k), exemption or relief from commercial tax on the goods produced for export.

6. Emerald Footwear Mfg Company Limited shall have to sign the Lease Agreement for Land and Buildings with U Maung Maung Hlaing. After signing the Agreement, (5) copies shall have to be forwarded to the Commission.

7. Emerald Footwear Mfg Company Limited in consultation with the Company Division, Directorate of Investment and Company Administration shall have to be registered. After registration, (5) copies each of Certificate of Incorporation and Memorandum of Association and Articles of Association shall have to be forwarded to the Commission.

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- 3 -

8. Emerald Footwear Mfg Company Limited shall use its best efforts for timely realization of works stated on the proposal. If none of such works has been commenced within one year from the date of issue of this "Permit", it shall become null and void.
9. Emerald Footwear Mfg Company Limited has to abide by Chapter X, Rule 58 and 59 of the Foreign Investment Rules for construction period.
10. As per Chapter X, Rule 61 of the Foreign Investment Rules, extension of construction period shall not be allowed more than twice except it is due to unavoidable events such as natural disasters, instabilities, riots, strikes, emergency of State condition, insurgency and outbreak of wars.
11. As per Chapter X, Rule 63 of the Foreign Investment Rules, if the investor cannot construct completely in time during the construction period or extension period, the Commission will have to withdraw the permit issued to the investor and there is no refund for the expenses of the project.
12. The investor or promoter shall apply the commencement date of commercial operation with Form (11) for their manufacturing business and report to the Commission in accordance with Foreign Investment Rule 97.
13. Emerald Footwear Mfg Company Limited shall endeavour to meet the targets for production and export stated in the proposal as the minimum target.
14. The Commission approves periodical appointments of foreign experts and technicians from abroad as per proposal and also in accordance with Chapter XI, section 24 and section 25 of Foreign Investment Law and Emerald Footwear Mfg Company Limited has to follow the existing Labour Laws for the recruitment of staffs and labour in accordance with Chapter XIII, Rule 84 of the Foreign Investment Rules.
15. In order to evaluate foreign capital and for the purpose of its registration in accordance with the provisions under Chapter XV, section 37 of Foreign Investment Law, it is compulsory to report as early as possible in the following manner:-
 - (a) the amount of foreign currency brought into Myanmar, attached with the necessary documents issued by the respective bank where the account is opened and defined under Chapter XVI, Rule 134 and 135 of the Foreign Investment Rules;

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- 4 -

(b) the detailed lists of the type and value of foreign capital defined under Chapter I, section 2(i) of Foreign Investment Law, other than foreign currency.

16. Whenever Emerald Footwear Mfg Company Limited brings in foreign capital defined under Chapter I, section 2(i) of Foreign Investment Law, other than foreign currency in the manner of paragraph 15(b) mentioned above, the Inspection Certificate endorsed and issued by an internationally recognized Inspection Firm with regard to quantity, quality and price of imported materials shall have to be attached.

17. Emerald Footwear Mfg Company Limited has the right to make account transfer and expend the foreign currency from his bank account in accordance with Chapter XVI, Rule 136 of the Foreign Investment Rules and for account transfer of local currency generated from the business to the local currency account opened at the bank by a citizen or a citizen-owned business in the Union and right to transfer back the equivalent amount of foreign currency from the foreign currency bank account of a citizen or citizen-owned business by submitting the sufficient document in accordance with Chapter XVII, Rule 145 of the Foreign Investment Rules.

18. Emerald Footwear Mfg Company Limited shall report to the Commission for any alteration in the physical and financial plan of the project. Cost overrun, over and above the investment amount pledged in both local and foreign currency shall have to be reported as early as possible.


19. Emerald Footwear Mfg Company Limited shall be responsible for the preservation of the environment at and around the area of the project site. In addition to this, it shall carry out as per instructions made by Ministry of Environmental Conservation and Forestry in which to conduct an Initial Environmental Examination (IEE) and an Environmental Management Plan (EMP) which describe the measure to be taken for preventing, mitigation and monitoring significant environmental impacts resulting from the implementation and operation of proposed project or business or activity. It has to prepare and submit and perform activities in accordance with this EMP and abide by the environmental policy, Environmental Conservation Law and other environmental related rules and procedures.

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- 5 -

20. After getting permit from Myanmar Investment Commission, Emerald Footwear Mfg Company Limited shall have to be registered at the Directorate of Industrial Supervision and Inspection.
21. Emerald Footwear Mfg Company Limited shall have to abide by the Fire Services Department's rules, regulations, directives and instructions. Moreover, fire prevention measures shall have to undertake such as water storage tank, fire extinguishers and provide training to use the fire fighting equipments and also to appoint fire safety officer.
22. Payment of principal and interest of the loan (if any) as well as payment for import of raw materials and spare parts etc., shall only be made from export earning (CMP charges) of Emerald Footwear Mfg Company Limited.
23. Emerald Footwear Mfg Company Limited in consultation with Myanmar Insurance shall effect such types of insurance defined under Chapter XII, Rule 79 and 80 of the Foreign Investment Rules.


(Zay Yar Aung)
Chairman
၁၃/၁၂/၉၆

Emerald Footwear Mfg Company Limited

- cc: 1. Office of the Government of the Republic of the Union of Myanmar
2. Ministry of Home Affairs
 3. Ministry of Foreign Affairs
 4. Ministry of Environmental Conservation and Forestry
 5. Ministry of Electric Power
 6. Ministry of Immigration and Population
 7. Ministry of Industry
 8. Ministry of Commerce
 9. Ministry of Finance
 10. Ministry of National Planning and Economic Development
 11. Ministry of Labour, Employment and Social Security

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- 6 -

12. Central Bank of Myanmar
13. Chairman, CMP Enterprises Supervision Committee
14. Office of the Yangon Region Government
15. Director General, Fire Services Department
16. Director General, Department of Environmental Conservation
17. Director General, Immigration and National Registration Department
18. Director General, Directorate of Industrial Supervision and Inspection
19. Director General, Directorate of Trade
20. Director General, Customs Department
21. Director General, Internal Revenue Department
22. Director General, Directorate of Investment and Company Administration
23. Director General, Department of Urban and Housing Development
24. Director General, Directorate of Labour
25. Managing Director, Myanma Electric Power Enterprise
26. Managing Director, Myanma Foreign Trade Bank
27. Managing Director, Myanma Investment and Commercial Bank
28. Managing Director, Myanma Insurance
29. Chairman, Republic of the Union of Myanmar Federation of Chambers of Commerce and Industry(UMFCCI)

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APPENDIX B

Air Quality Monitoring Result



Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	Emerald Footwear MFG Company Limited
Project Location:	Plot No. (37), Myay Taing Block No.144 Industrial Zone, Dagon Myo Thit (South) Township, Yangon Region.
Sampling Date:	September 17, 2020
Sampling Time:	8:00 AM to 5:00 PM
Sampling Condition:	
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
OCEANUS-AQM-09	PM, O ₃ , NO ₂ , SO ₂ , CO, CO ₂ Detector	0-999.9 (µg/m ³)	Operation Area (Outdoor)

National Environmental Quality (Emission) Guideline

Parameter	Averaging Period	Guideline Value	Unit
PM ₁₀ ^a	1-year 24-hour	20 50	(µg/m ³)
PM _{2.5} ^a	1-year 24-hour	10 25	(µg/m ³)
O ₃ ^a	8-hour	100	(µg/m ³)
NO ₂ ^a	1-year 1-hour	40 200	(µg/m ³)
SO ₂ ^a	24-hour 10-min	20 500	(µg/m ³)

a. Values from air quality guidelines-global update 2005: particulate matter, ozone, nitrogen dioxide and sulfur dioxide.

Monitoring Result

Parameters	Observed Value	Guideline Value	Unit	Organization	Period
PM ₁₀	17.07	50	µg/m ³	NEQG	8 hours
PM _{2.5}	12.46	25	µg/m ³	NEQG	8 hours
SO ₂	45.49	500	µg/m ³	NEQG	8 hours
NO ₂	18.16	200	µg/m ³	NEQG	8 hours

O ₃	33.48	100	µg/m ³	NEQG	8 hours
CO	6.5	NG	µg/m ³	NEQG	8 hours


LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

APPENDIX C

Noise Level Result



Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	Emerald Footwear MFG Company Limited
Project Location:	Plot No. (37), Myay Taing Block No.144 Industrial Zone, Dagon Myo Thit (South) Township, Yangon Region.
Sampling Date:	September 17, 2020
Sampling Time:	8:00 AM to 5:00 PM
Sampling Condition:	
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
Digital Sound Level Meter	GM 1356 USB	30 -130 dB	16°53'33.18"N and 96°15'4.54"E

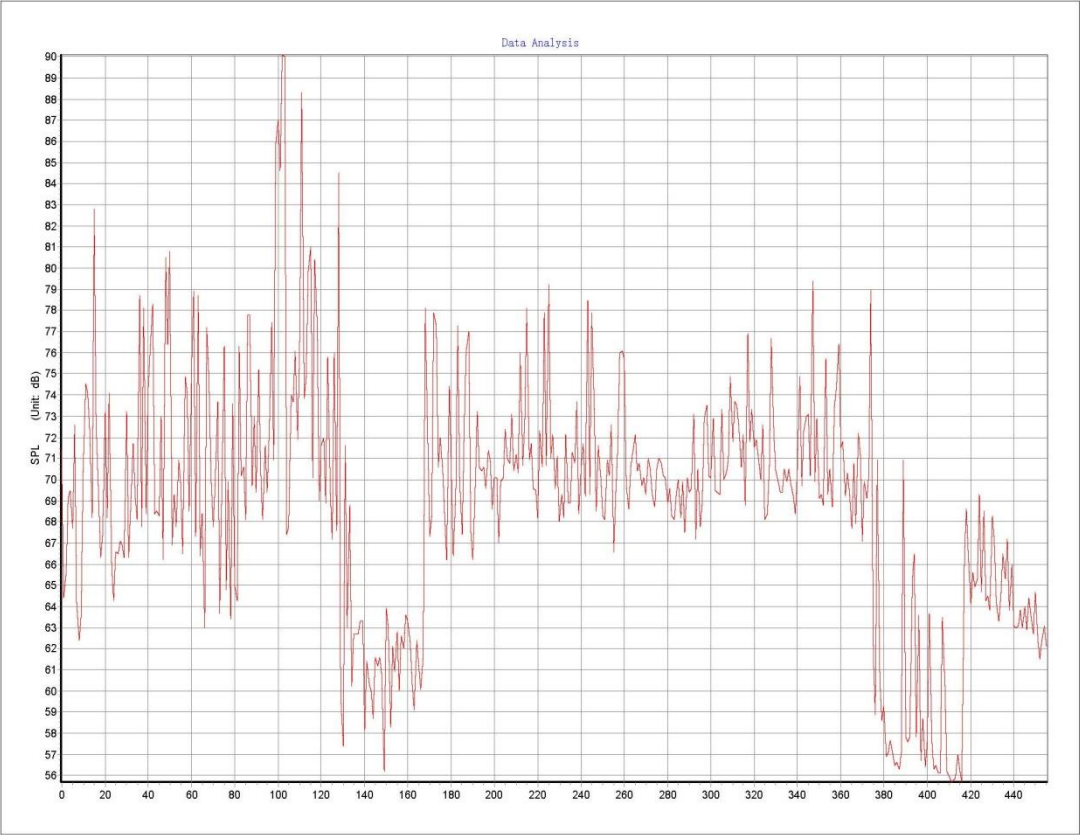
No.	Place	Unit	Result	Standard	Remark
1.	Operation Area (Sewing Line)	dBA	68.82	70 dBA	Normal

National Environmental Quality (Emission) Guideline

Receptor	One Hour LAeq (dBA)	Guideline Value
	Day Time	Night Time
	7:00 – 22:00 (10:00 – 22:00 for Public holidays)	22:00 – 07:00 (22:00 – 10:00 for Public holidays)
Residential, Institutional, Educational	55	45
Industrial, Commercial	70	70


LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Noise Graph



APPENDIX D

Light Result



Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	Emerald Footwear MFG Company Limited		
Project Location:	Plot No. (37), Myay Taing Block No.144 Industrial Zone, Dagon Myo Thit (South) Township, Yangon Region.		
Sampling Date:	September 17, 2020		
Sampling Time:	8:00 AM to 5:00 PM		
Sampling Condition:			
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited		

Instrument	Type	Sampling Rate	Location
Uni-T (Luminometer)	UT380 Series	100 times/second	16°53'31.82"N 96°15'3.91"E

No.	Measure Area	Unit	Result	Standard	Remark
1.	Warehouse	Lux	325	300	Slightly Above
2.	Mold Cutting Area	Lux	859	1000	Normal
3.	Sewing Area	Lux	1105	600	Above
4.	Attaching Area	Lux	783	900	Normal
5.	Quality Control	Lux	1045	900	Slightly Above
6.	Packing Area	Lux	753	600	Slightly Above

IESNA Lighting Handbook

Department	Type of Light	Wattage of Light	Lux Level
Warehouse	Fluorescent tube light	40 W	300
Sewing floor	LED tube light	20 W (T8)	400
Cutting floor	LED tube light	22 W (T8)	1000
Finishing	LED tube light	28 W (T8)	600
Inspection points	LED tube light	28 W (T8)	900 (except 1500 at audit tables)
Sampling	LED tube light	22 W (T8)	500
Office areas	Fluorescent tube light	36 W (T)	300


LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

APPENDIX E

PowerPoint Presentation Slides

EMERALD FOOTWEAR MFG CO., LTD.၏ CMP စနစ်ဖြင့်ရှားဖိနပ်အမျိုးမျိုးနှင့်ဖိနပ်အစိတ်အပိုင်းများထုတ်လုပ်ခြင်းလုပ်ငန်း

ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာ (မူကြမ်း) အတွက်
သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးပွဲ အခမ်းအနား။

ဇန်နဝါရီလ၊ ၂၀၂၁ ခုနှစ်။

Prepared By

Myanwei Environmental Solutions Co., Ltd



အစည်းအဝေး အကြောင်းအရာ

- ၁။ EMERALD FOOTWEAR MFG CO., LTD အား မိတ်ဆက်ခြင်း။
- ၂။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား မိတ်ဆက်ခြင်း။
- ၃။ သက်ရောက်မှုဆန်းစစ်ခြင်း ရလဒ်များနှင့်ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ။
- ၄။ ပတ်ဝန်းကျင်အပေါ်သက်ရောက်မှုများနှင့် ဖြေလျှော့ရေးနည်းလမ်းများ။
- ၅။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် နှင့်
- ၆။ စက်ရုံ၏ဆောင်ရွက်ချက်များ။

EMERALD FOOTWEAR MFG CO., LTD. စက်ရုံပြင်ပအဆောက်အအုံပုံစံ



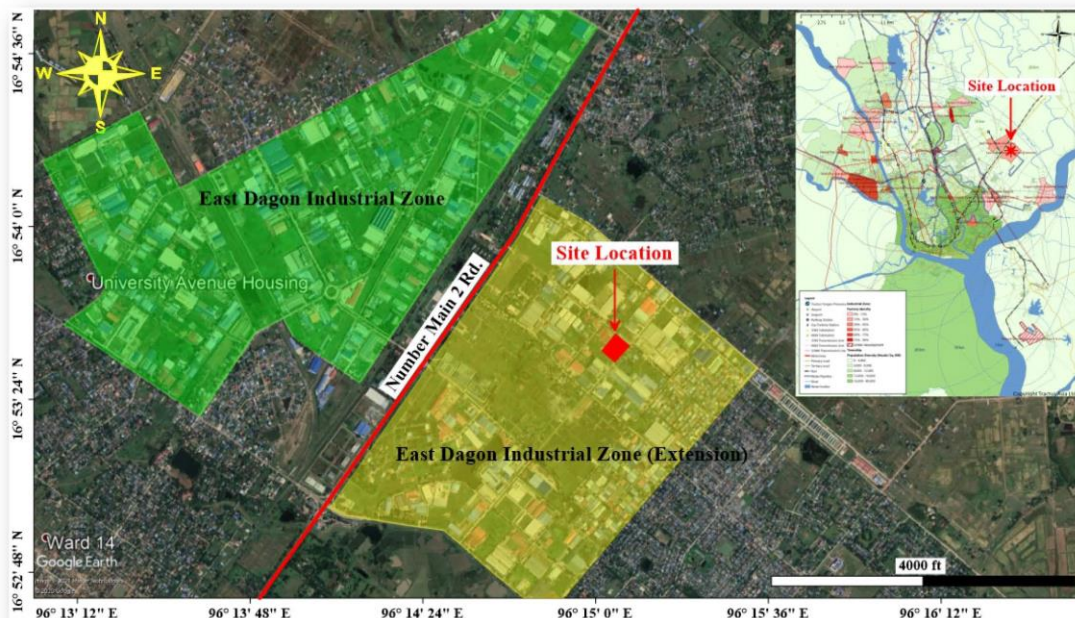
EMERALD FOOTWEAR MFG CO., LTD.

လုပ်ငန်းအမျိုးအစား	CMP စနစ်ဖြင့် ရှေးဖန်အမျိုးမျိုးနှင့်ဖန်အစိတ်အပိုင်းများ ထုတ်လုပ်ခြင်းလုပ်ငန်း။
ခွင့်ပြုမိန့်အမှတ်	(ခွင့်ပြုမိန့်အမှတ်- ၁၀၆၄/၂၀၁၆)၂၀၁၆ခုနှစ်၊ဇန်နဝါရီလ၊ ၂၆ ရက်။
ရင်းနှီးမြှုပ်နှံမှု	၁၀၀ ရာခိုင်နှုန်း နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု။
မြေဧရိယာ	မြေဧရိယာစုစုပေါင်း - ၁.၁၃၆၇ ဧက (၄၆၀၀ စတုရန်းမီတာ)
အဆောက်အအုံ	တစ်ထပ်စက်ရုံအဆောက်အအုံ(၃၆ ပေ × ၈၀ ပေ) နှစ်ထပ်စက်ရုံအဆောက်အအုံ(၁၂ ပေ × ၃၂ ပေ)
ရင်းနှီးမြှုပ်နှံသည့်ကာလ	၁၀ နှစ်
စက်ရုံလိပ်စာ	မြေကွက်အမှတ်(၃၇)၊မြေတိုင်းရပ်ကွက်အမှတ်(၁၄၄)၊စက်မှုဇုန်၊ဒဂုံမြို့သစ် တောင်ပိုင်းမြို့နယ်၊ရန်ကုန်တိုင်းဒေသကြီး။

လုပ်ငန်းလည်ပတ်ရန်အခြေခံလိုအပ်ချက်များ

ရေအသုံးပြုမှုအခြေအနေ	
ရေအရင်းအမြစ်	အဝီစိတွင်းရေ (၁ တွင်း)
အဓိကလိုအပ်ချက်	
ခန့်အပ်မည့်လုပ်သားဦးရေ	၂၂၅၂ ဦး
အဓိကကုန်ကြမ်း	လီနင်၊လည်သာနှင့်သားရေ ဖစ်ကြိုးနှင့်ဆက်စပ်ပစ္စည်းများ။
နှစ်စဉ်ထွက်ကုန်ပစ္စည်းပမာဏ	နှစ်စဉ် ပျမ်းမျှထုတ်ကုန်အရေအတွက် နှစ်သန်းကျော်။

EMERALD FOOTWEAR MFG CO., LTD. ၏စီမံကိန်း တည်နေရာ





ကုန်ကြမ်း



ပိတ်စဖြတ်ခြင်း



ဖိနပ်ချုပ်ခြင်း



ဖိနပ်အစိတ်အပိုင်းများတွဲခြင်း



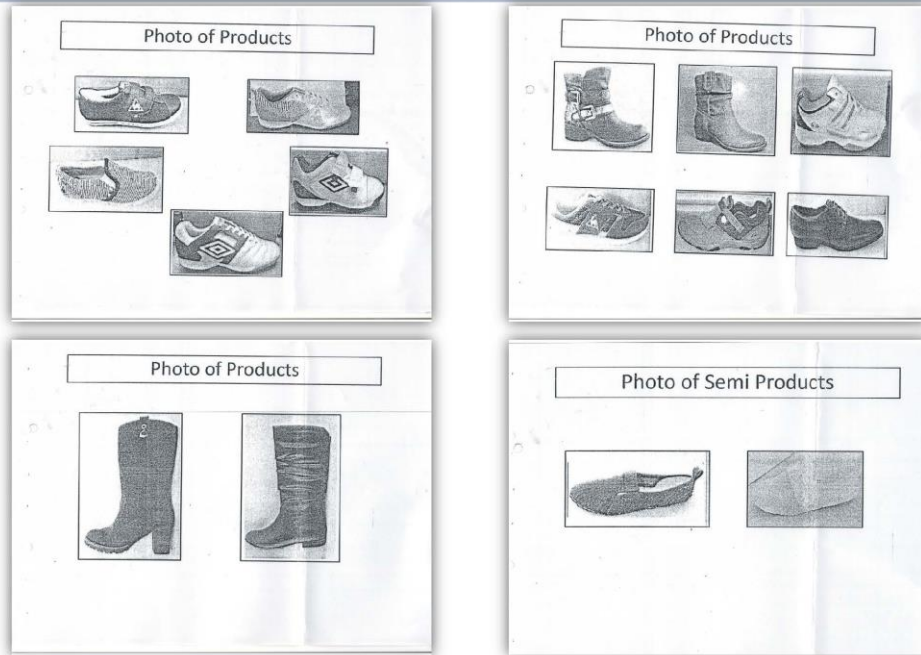
ထုတ်ကုန်စစ်ဆေးခြင်း



ထုတ်ပိုးခြင်း

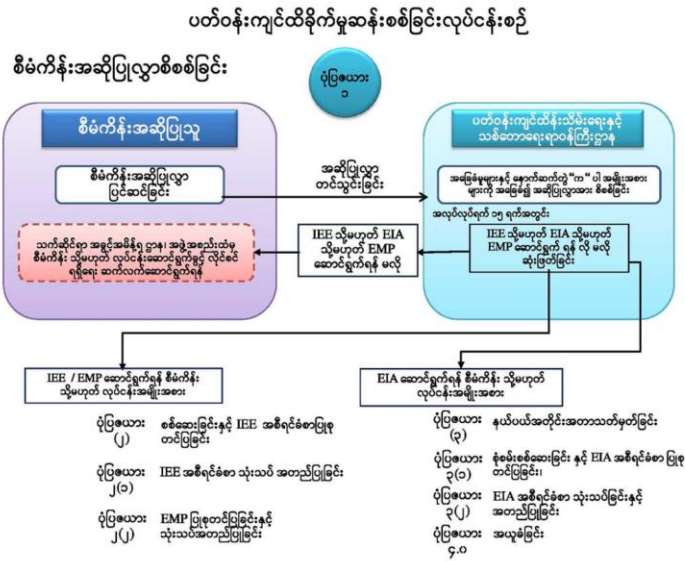


EMERALD FOOTWEAR MFG CO., LTD.၏ ထုတ်ကုန်များ

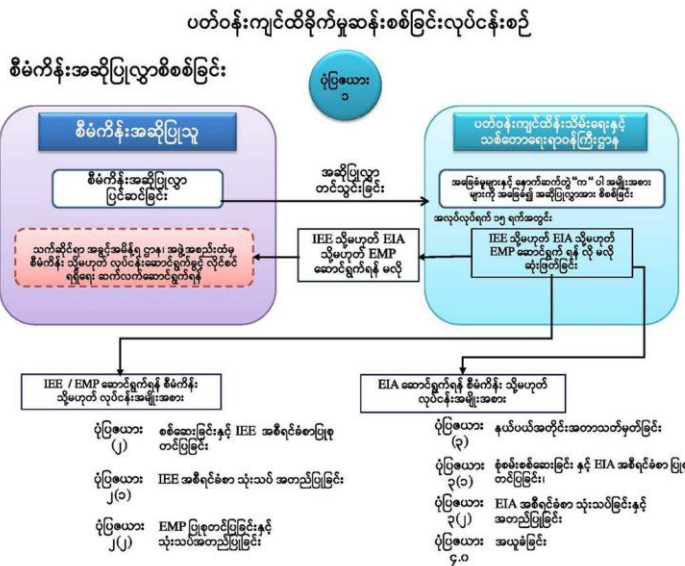


ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား မိတ်ဆက်ခြင်း

ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းလုပ်ငန်းစဉ်

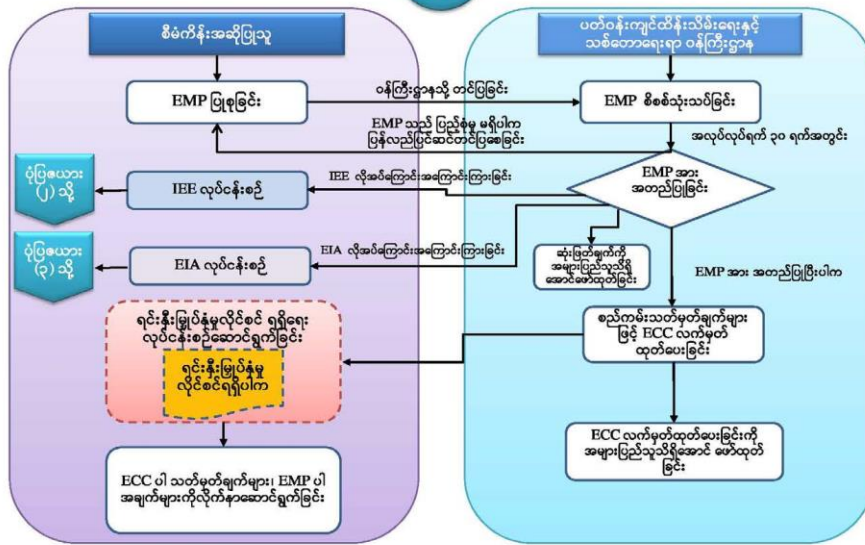


ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ပြုလုပ်ခြင်း



EMP သုံးသပ်ခြင်းနှင့် အတည်ပြုခြင်း

ပုံစံအမျိုးအစား
၂ (၂)



၇

ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီအတည်ပြုမိန့်

THE REPUBLIC OF THE UNION OF MYANMAR
The Myanmar Investment Commission
PERMIT

Permit No. 1064/2016 Date 26 January 2016

This Permit is issued by the Myanmar Investment Commission according to the section 13, sub-section (b) of the Republic of the Union of Myanmar Foreign Investment Law-

(a) Name of Investor/Promoter MR. HSUEH, CHUNG-KUN

(b) Citizenship TAIWANESE

(c) Address 8 AREA OF BATTAN FACTORY, NO.22, BAN ZHANG LANE 1, BAO TUN DISTRICT, HOU JE TOWN, DONG GUAN CITY, GUANGDONG PROVINCE, CHINA

(d) Name and Address of Principal Organization LEGEND TEAM INC., 1st FLOOR, # 5 DECK HOUSE, DE ZEPORA STREET, PROVIDENCE INDUSTRIAL ESTATE, MAHE, REPUBLIC OF SEYCHELLES

(e) Place of Incorporation REPUBLIC OF SEYCHELLES

(f) Type of Investment Business MANUFACTURING OF ALL KINDS OF FOOTWEAR AND SEMI FOOTWEAR PRODUCTS ON CMP BASIS

(g) Place(s) at which investment is permitted PLOT NO. 37, MYAY TANG BLOCK NO. 144, INDUSTRIAL ZONE, DAGON MYOTHTI (SOUTH) TOWNSHIP, YANGON REGION

(h) Amount of Foreign Capital US\$ 1.32 MILLION

(i) Period for Foreign Capital brought in WITHIN ONE YEAR FROM THE DATE OF ISSUANCE OF MIC PERMIT

(j) Total amount of capital (Kyat) EQUIVALENT IN KYAT OF US\$ 1.32 MILLION

(k) Construction period 1 (ONE) YEAR

(l) Validity of investment permit 10 YEARS

(m) Form of Investment WHOLLY FOREIGN OWNED

(n) Name of Company incorporated in Myanmar EMERALD FOOTWEAR MFG COMPANY LIMITED

Chairman
The Myanmar Investment Commission

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်
ခွင့်ပြုမိန့်

ခွင့်ပြုမိန့်အမှတ် ၁၀၆၄/၂၀၁၆ ၂၀၁၆ ခုနှစ် ဇန်နဝါရီလ ၂၆ ရက်

ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု ဥပဒေခရစ်မ-၃၃၊ ပုဒ်မ(၁) အရ ဤခွင့်ပြုမိန့်ကို မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်က ထုတ်ပေးလိုက်သည်။

(က) ရင်းနှီးမြှုပ်နှံသူ/အထောက်အပံ့သူအမည် MR. HSUEH, CHUNG-KUN

(ခ) နိုင်ငံသား TAIWANESE

(ဂ) ဧရပ်သီလိစာ 8 AREA OF BATTAN FACTORY, NO.22, BAN ZHANG LANE 1, BAO TUN DISTRICT, HOU JE TOWN, DONG GUAN CITY, GUANGDONG PROVINCE, CHINA

(ဃ) ဝင်ပစ္စည်းထုတ်လုပ်မှုနှင့် လိပ်စာ LEGEND TEAM INC., 1st FLOOR, # 5 DECK HOUSE, DE ZEPORA STREET, PROVIDENCE INDUSTRIAL ESTATE, MAHE, REPUBLIC OF SEYCHELLES

(င) ခွဲစည်းရာအရပ် REPUBLIC OF SEYCHELLES

(စ) ရင်းနှီးမြှုပ်နှံသည့်လုပ်ငန်းအမျိုးအစား CMP စနစ်ဖြင့် ဖွဲ့စည်းထုတ်လုပ်မှုနှင့် မိန့်တံဆိပ်အတိုင်းများ ထုတ်လုပ်ဖြန့်ဖြူး လုပ်ငန်း

(ဆ) ရင်းနှီးမြှုပ်နှံသည့်စာရင်းအသေးစား(များ) မြေကွက်အမှတ် ၃၇၊ မြေကွက်ရင်းနှီးမြှုပ်နှံမှုကော်မရှင် ဘဏ္ဍာ ဝန်ထုပ် ဝန်ရောင်း (တောင်ပိုင်းမြို့နယ်) ရင်းနှီးမြှုပ်နှံခြင်းအသေးစား

(ဇ) နိုင်ငံခြားမတည်ဆောက်မှုနှင့် ပတ်သက် အသေးစားကုမ္ပဏီက ၁၃၂ သန်း

(ဈ) နိုင်ငံခြားမတည်ဆောက်မှုနှင့်ပတ်သက်လာရမည့်ကာလ ခွင့်ပြုမိန့်ရရှိသည့်နေ့မှ (၁) ခုနှစ် အတွင်း

(ည) စုစုပေါင်း မတည်ဆောက်မှုနှင့်ပတ်သက်(တွင်) အသေးစားကုမ္ပဏီက ၁၃၂ သန်း ခွင့် ပြုသည့် ပြန်ဟောင်းခွင့်

(ဋ) တည်ဆောက်မှုကာလ ၁ နှစ်

(ဌ) ရင်းနှီးမြှုပ်နှံမှုခွင့်ရရှိသည့် သက်တမ်း ၁၀ နှစ်

(ဍ) ရင်းနှီးမြှုပ်နှံမှုပုံစံ ရင်းနှီးမြှုပ်နှံခြင်းနှင့်မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှု

(ဎ) မြန်မာနိုင်ငံတွင် ခွဲစည်းစည်း ကျမှတ်အမည် EMERALD FOOTWEAR MFG COMPANY LIMITED

ရုံးချုပ်
မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်

သက်ရောက်မှုဆန်းစစ်ခြင်းရလဒ်များနှင့် ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ

စီမံကိန်းပတ်ဝန်းကျင်အနေအထား

စဉ်	အကြောင်းအရာ	ဖော်ပြချက်
၁။	ကိုဩဒိနိတ်အမှတ်	မြောက်လတ္တီကျု ၁၆°၅၃'၃၁.၈၂" နှင့် အရှေ့လောင်ဂျီကျု ၉၆°၁၅'၃.၉၁"
၂။	ရာသီဥတုအခြေအနေ	ဒဂုံမြို့သစ် အရှေ့ပိုင်း တောင်ဒဂုံမြို့နယ် ရန်ကုန်တိုင်း နှစ်စဉ်ပျမ်းမျှအမြင့်ဆုံးအပူချိန် ၃၉.၃°C၊ အနိမ့်ဆုံးအပူအချိန် ၂၀°C
၃။	စက်ရုံနေရာတွင်မြေအသုံးချမှု	စက်မှုလုပ်ငန်းနှင့်သက်ဆိုင်သောမြေအသုံးချမှုပုံစံ (စက်မှုဇုန်)
၄။	လမ်းပန်းဆက်သွယ်ရေး	အမှတ်(၂) လမ်းမကြီး
၅။	အနီးဆုံးရေအရင်းအမြစ်	ပဲခူးမြစ်
၆။	သစ်တောဧရိယာ	မရှိ
၇။	ကန့်သတ်ကာကွယ်ထားသော ဧရိယာ	မရှိ
၈။	တိုင်းတာမှုရလဒ်	<input type="checkbox"/> ဆူညံသံ တိုင်းတာခြင်း <input type="checkbox"/> လေထုအရည်အသွေး တိုင်းတာခြင်း <input type="checkbox"/> အပူချိန် နှင့် စိုထိုင်းမှု အရည်အသွေး တိုင်းတာခြင်း <input type="checkbox"/> ရေအရည်အသွေး

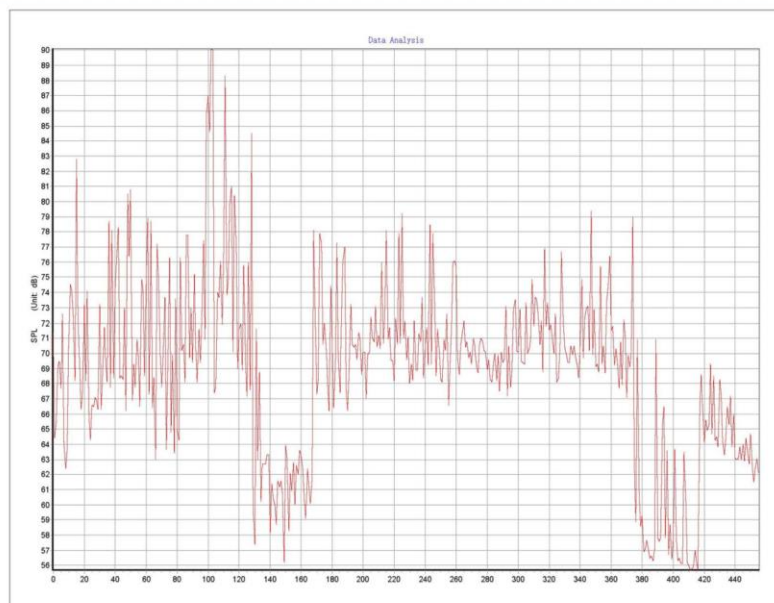
ဆူညံသံတိုင်းတာမှု

Date & Time	Location	GPS location	Noise Result	NEQ Guideline
17 September 2020	Operation Area	16° 53' 33.18" N 96° 15' 4.54" E	68.82	70 dBA

အထက်ဖော်ပြပါ ဆူညံသံတိုင်းတာမှုရလဒ်များအရ EMERALD FOOTWEAR MFG CO., LTD.၏ဆူညံသံများမှာ National Emission Quality Guideline အတွင်းတည်ရှိနေသည်ကို ဆန်းစစ်တွေ့ရှိရပါသည်။



PINNACLE SPROTING GOODS (MYANMAR) CO., LTD. ၏ဆူညံသံတိုင်းတာမှုပြ ဂရပ်



လေထုတိုင်းတာမှု

Parameters	Observed Value	Guideline Value	Unit	Organization	Period
PM ₁₀	17.07	50	μg/m ³	NEQG	24 hrs
PM _{2.5}	12.46	25	μg/m ³	NEQG	24 hrs
SO ₂	45.49	500	μg/m ³	NEQG	10 minutes
NO ₂	18.16	200	μg/m ³	NEQG	1 hour
O ₃	33.48	100	μg/m ³	NEQG	8 hour
CO	6.5	-	μg/m ³	NEQG	-



လေထုတိုင်းတာမှုပုံရိပ်များ



စီမံကိန်းဧရိယာအတွင်းလေထုတိုင်းတာမှုပြဂရပ်



အလင်းရောင်တိုင်းတာမှု

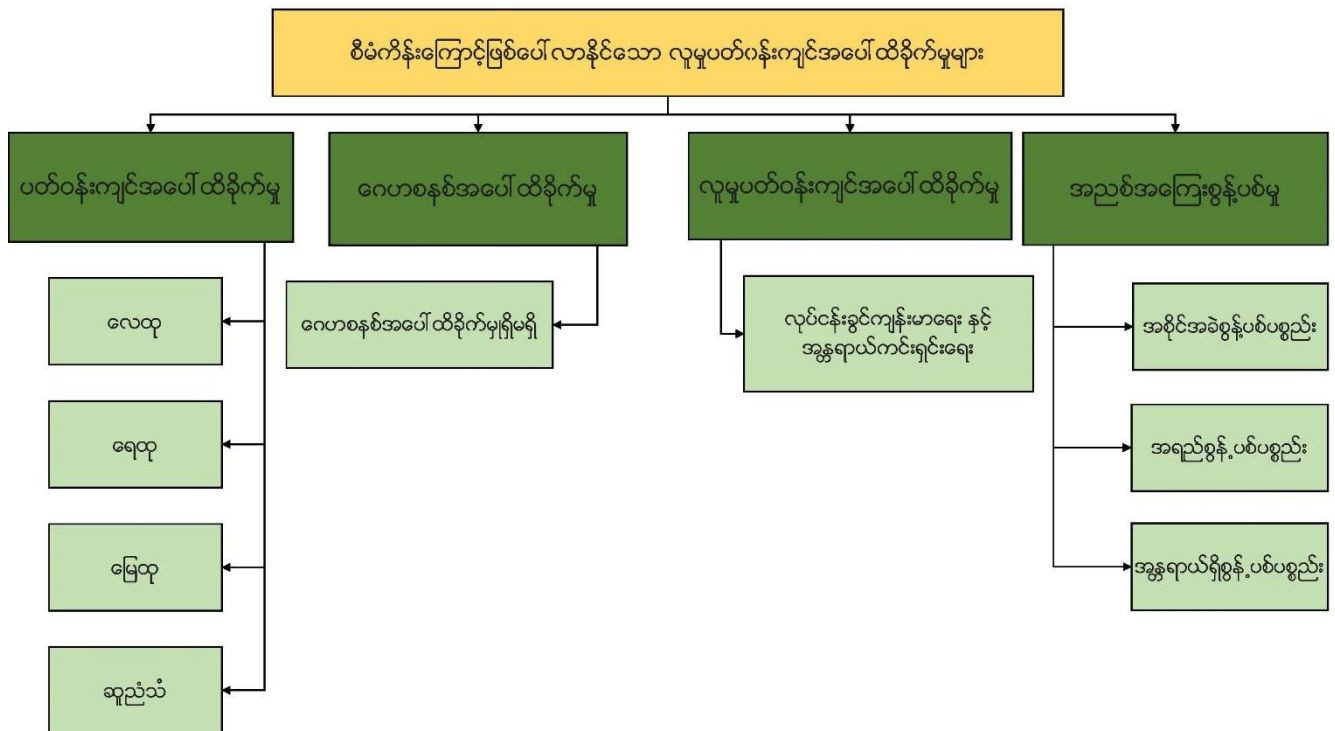
No.	Location	Measure value (Lux)	Standard*	Remark
1	Warehouse	325	300	Normal
2	Mold Cutting Area	859	1000	Below
3	Sewing	1105	600	Above
4	Attaching	783	900	Below
5	QC	1045	900	Above
6	Packing	753	600	Above



စက်ရုံအတွင်းအလင်းရောင်တိုင်းတာမှုပုံရိပ်များ



ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများနှင့် ဖြေလျှော့ရေးနည်းလမ်းများ



သက်ရောက်မှု	စီမံကိန်းဆောင်ရွက်ချက်	လျော့နည်းစေရန် အရေးယူဆောင်ရွက်မှု
စီမံကိန်းလည်ပတ်ချိန်		
လေထု	မီးစက်၊မော်တော်ယာဉ်များမှ မီးခိုးများထွက်ခြင်း၊	မီးစက် အတွက် မီးခိုး ခေါင်းတိုင်အသုံးပြုစေခြင်း၊ မော်တော်ယာဉ်၊ မီးစက်များကို ငုံမှန် စစ်ဆေးခြင်း။
ဆူညံသံ	မီးစက်၊ အပ်ချုပ်စက်နှင့် မော်တော်ယာဉ် အသုံးပြုမှုကြောင့် ပတ်ဝန်းကျင်အပေါ် ဆူညံမှု	ဆူညံသံထွက်သောနေရာများကို အကာကွယ်ဖြင့် ထားရှိခြင်း၊ စက်ရုံပန်ထမ်းများကို PPEအပြည့်စုံအထောက်ပံ့ပေးခြင်း
မီးဘေး	ကုန်ကြမ်းသိုလှောင်မှု နှင့် လျှပ်စစ်သုံးစွဲ ပေါ့လျော့မှု	ကုန်ကြမ်းများအား သီးသန့်ထားရှိခြင်း၊ လျှပ်စစ်သုံးစွဲမှုများအား စနစ်တကျ အသုံးပြုစေခြင်း
ကျန်းမာရေးစောင့်ရှောက်မှု	လုပ်ငန်းလည်ပတ်ခြင်းကြောင့် မတော်တဆထိခိုက်မှုဖြစ်ပေါ်ခြင်း၊	အရေးပေါ်အခြေအနေများအတွက် ပစ္စည်းကိုင်တွယ်မှု သင်တန်းပေးခြင်း၊ တစ်ကိုယ်ရေကာကွယ်သုံးပစ္စည်းများအသုံးပြုစေခြင်း
စွန့်ပစ်ပစ္စည်း (အစိုင်အခဲ၊ အရည်)	ထုတ်လုပ်ရာတွင်ကျန်ရှိသော ချည်မျှင်အပိုင်းအစများ၊ နေအိမ်၊ စားသောက်ဆောင် တို့မှစွန့်ထုတ်ရေ၊ မိလ္လာကန်စနစ်	စွန့်ပစ်အမှိုက်များအား ပြန်လည်သုံးစွဲရန် နှင့် စွန့်ပစ်ရန် အဖြစ်သတ်မှတ်ပြီး သီးခြားစွန့်ပစ်စေခြင်း၊ စွန့်ပစ်အရည်များအားသီးခြားရေနုတ်မြောင်းတွေဖြင့်စွန့်ပစ်ခြင်း။
အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများ	စက်များမှဆီယိုစိမ့်မှုများ၊ နိုင်လွန်ပိတ်စများ၊ တစ်ခြားမီးလောင်လွယ်သောအမှိုက်များ	စက်သုံးဆီများအားစနစ်တကျ အသုံးပြုစေခြင်း၊ စနစ်တကျသိုလှောင်ခြင်း နှင့် အန္တရာယ်ရှိပစ္စည်းများအား စနစ်တကျထားရှိစေခြင်း

သက်ရောက်မှု	စီမံကိန်းဆောင်ရွက်ချက်	လျော့နည်းစေရန် အရေးယူဆောင်ရွက်မှု
စီမံကိန်းပိတ်သိမ်းချိန်		
လေထု	အဆောက်အဦးဖြူချမှု၊ သယ်ယူမှုများ	လျော့ချရန်မလိုပါ။
ရေထု	မြေပေါ် မြေအောက်အပေါ် သက်ရောက်မှုမရှိနိုင်ပါ။	လျော့ချရန်မလိုပါ။
ဆူညံသံ	ဆူညံသံများမဖြစ်ပေါ်နိုင်ပါ။	လျော့ချရန်မလိုပါ။
လုပ်ငန်းခွင် ဘေးအန္တရာယ်	လုပ်ငန်းခွင်ဖျက်သိမ်းချိန်တွင် မတော်တဆမှုများဖြစ်ပေါ်နိုင်ခြင်း	လုပ်သားများကို တစ်ကိုယ်ရေ ကာကွယ်သုံး ပစ္စည်းများအသုံးပြုစေခြင်း။
စွန့်ပစ်ပစ္စည်း (အစိုင်အခဲ၊ အရည်)	စီမံကိန်းဖျက်သိမ်းရာမှ တည်ဆောက်ရေး ပစ္စည်း အကျိုးအပဲ့များထွက်ခြင်း၊ ကျန်ရှိနေသော မိလ္လာကန်များ၊	အမှိုက်များကို မြို့တော် စည်ပင်သာယာရေး ကော်မတီနှင့် ချိတ်ဆက်၍ စွန့်ပစ်ခြင်း
အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်း	စက်ဆီ၊ ဒီဇယ်ပုံးအခွံများ	ဓာတုပစ္စည်းထည့်ထားသော ပုံးခွံများ၊ ဒီဇယ်ပုံး အခွံများကိုဆေးကြော၍ ပြန်လည်အသုံးပြုခြင်း၊ စနစ်တကျစွန့်ပစ်ခြင်း

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်

လေထုညစ်ညမ်းမှုလျော့ချရေး

ရည်ရွယ်ချက်	စီမံကိန်းကြောင့် စက်ရုံမှ ထွက်သော ဓာတ်ငွေ့များနှင့် မီးစက်များမှ ထွက်ရှိသော ဓာတ်ငွေ့များကြောင့် လေထုညစ်ညမ်းမှုကို လျော့ချရန်
လိုက်နာရမည့် စည်းကမ်း	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှု အစီအစဉ်	<ul style="list-style-type: none"> စက်ရုံအတွင်းနှင့် အနားဝန်းကျင်တွင် သစ်ပင်ပန်းမန်စိုက်ပျိုးခြင်း စက်ရုံအတွင်း မည်သည့်စွန့်ပစ်ပစ္စည်းများအား မီးရှို့ဖျက်စီးခြင်း မပြုလုပ်ခြင်း လုပ်သားများအား Personal Protective Equipment (PPE) ဟုခေါ်သော အကာအကွယ်ပစ္စည်းများဖြစ်သည့် လေကာ/နေကာမျက်မှန်များ၊ နာခေါင်းစည်း၊ စသည်တို့အားထောက်ပံ့ခြင်း၊ အသိပညာပေး သင်တန်းများ ပေးခြင်း
တာဝန်ယူရမည့် ပုဂ္ဂိုလ်	<ul style="list-style-type: none"> ပြုပြင်ထိန်းသိမ်းရေးအရာရှိ - လေထုညစ်ညမ်းမှုလျော့ချရေးနည်းလမ်းများ ထုတ်လုပ်ရေးမန်နေဂျာ - လုပ်ငန်းခွင်လေထုသန့်ရှင်းရေး မန်နေဂျာ - ပတ်ဝန်းကျင်လေအရည်အသွေးတိုင်းတာရန် (ThirdParty) ဖြင့်ညှိနှိုင်းဆောင်ရွက်ရန်

ဆူညံသံလျော့ချရေး

ရည်ရွယ်ချက်	ဘေးပတ်ဝန်းကျင်ဆူညံမှုမဖြစ်ပေါ်စေရန် နှင့် စက်ရုံရှိ မီးစက်နှင့် အခြားစက်ပစ္စည်းများ ကြောင့် လုပ်သားများအပေါ်ထိခိုက်မှု လျော့ချရန်
လိုက်နာရမည့် စည်းကမ်း	<ul style="list-style-type: none"> ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅) အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> မီးစက်၊လေမှုတ်စက်တို့ကို ဆူညံသံထိန်းချုပ်နိုင်သော ခန်းဖွဲ့ စည်းမှုပုံစံ တည်ဆောက်ထားခြင်း လုပ်ငန်းသုံးယာဉ်များကိုဆူညံသံလျော့ချရန်သတ်မှတ်အရှိန်ထက်ကျော်လွန်မမောင်းစေခင်း လုပ်သားများအား Personal Protective Equipment (PPE) ဟုခေါ်သော အကာအကွယ်ပစ္စည်းများဖြစ်သည့် နားအကာကွယ်ရေးပစ္စည်းများ စသည်တို့အား ထောက်ပံ့ခြင်း၊ အသိပညာပေး သင်တန်းများ ပေးခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ - ဆူညံသံတိုင်းတာရန် (ThirdParty) ဖြင့်ညှိနှိုင်းဆောင်ရွက်ရန်

အစိုင်အခဲစွန့်ပစ်မှု ထိန်းသိမ်းရေး

ရည်ရွယ်ချက်	စွန့်ပစ်အမှိုက်ထွက်ရှိမှုလျော့ချရေးနှင့် စွန့်ပစ်အမှိုက်ကြောင့် ပတ်ဝန်းကျင်ညစ်ညမ်းမှုကို လျော့ချရန်
လိုက်နာရမည့်စည်းကမ်း	<ul style="list-style-type: none"> ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅) National Waste Management Strategy and Action Plan (Draft 2018)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> စက်ရုံမှ မည်သည့်စွန့်ပစ်ပစ္စည်းမှ မြစ်၊ ချောင်း၊ အင်း၊ အိုင် အတွင်းသို့ မစွန့်ပစ်ရ စက်ရုံတွင် စွန့်ပစ်ပစ္စည်းများကို ပြန်လည်အသုံးပြုနိုင်သောပစ္စည်း(ဆိုးဆေး၊ စက္ကူ၊ ပလတ်စတစ်၊ စသည်ဖြင့်) များကို ပြည်တွင်းဝယ်ယူသူများထံ ပြန်လည်ရောင်းချခြင်း စွန့်ပစ်ရန်ပစ္စည်း(လုပ်သားများမှစွန့်ပစ်ပစ္စည်းနှင့်မီးဖိုချောင်ထွက်ပစ္စည်းများ)ကို မြို့တော်စည်ပင်သာယာရေးအဖွဲ့အစည်း ကို နေ့စဉ်ခေါ်ယူပြီး သိမ်းဆည်းစေခြင်း အန္တရာယ်ရှိပစ္စည်း (စက်ဆီအဟောင်းများ၊ လျှပ်စစ်ပစ္စည်းအပျက်များ၊ သံထည်ပစ္စည်း) များကို ဝယ်ယူသူထံမှပြန်လည် သိမ်းဆည်းစေခြင်း စက်ရုံတွင် အမှိုက်စွန့်ပစ်ရန် အတွက် အမှိုက်ပုံးများကို စီမံထားခြင်း စက်ရုံဝန်းထမ်းအားလုံးကို စနစ်တကျ အမှိုက်စွန့်ပစ်ရန် တိုက်တွန်းနှိုးဆော်ထားခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	<ul style="list-style-type: none"> မန်နေဂျာ - စက်ရုံအတွင်းသန့်ရှင်းရေးအတွက်စီမံခန့်ခွဲရန်တာဝန်ရှိသည် အမှိုက်စွန့်ပစ်မှု ပုံမှန်ပြုလုပ်ရန်နှင့် စွန့်ပစ်ပစ္စည်းသယ်ယူသူများကို ပုံမှန်ပြုလုပ်ရန် တာဝန်ယူဆောင်ရွက်ရန်

စွန့်ပစ်အရည် ထိန်းသိမ်းရေး

ရည်ရွယ်ချက်	မြေပေါ်ရေနှင့် မြေအောက်ရေ ညစ်ညမ်းမှုမဖြစ်စေရေး
လိုက်နာရမည့်စည်းကမ်း	<ul style="list-style-type: none"> ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅) အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> စက်ရုံရေမြောင်းများနှင့်မိလ္လာစနစ်ကို စနစ်တကျ သန့်ရှင်းအောင်ထားရှိခြင်း လုံလောက်သည့်အတိုင်းအတာ ပမာဏရှိခြင်း မိလ္လာစနစ်ကို ပုံမှန်စစ်ဆေးပြီး လိုအပ်သကဲ့သို့ ထိန်းသိမ်းပြုပြင်ခြင်း စက်ရုံရေမြောင်းအတွင်းတွင် ပိတ်ဆို့မှုမရှိစေရန်နှင့် အနံ့ဆိုးများမထွက်စေရန်စီမံခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ - စွန့်ထုတ်ရေအရည်အသွေးတိုင်းတာရန် (ThirdParty) ဖြင့်ညှိနှိုင်းဆောင်ရွက်ရန်

စွမ်းအင်သုံးစွဲမှု ထိန်းသိမ်းရေး

ရည်ရွယ်ချက်	လျှပ်စစ်သုံးစွဲမှုလျော့ချစေရန်နှင့် လုပ်ငန်းခွင်အတွင်း လျှပ်စစ်သုံးစွဲမှုကြောင့် အန္တရာယ်မရှိစေရန်
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> စက်ရုံတွင်း လျှပ်စစ်သုံးစွဲမှုများအတွက် စွမ်းအင်လျော့ချနိုင်သည့် စက်ကိရိယာများတပ်ဆင်ခြင်း အသုံးမပြုလျှင် စက်ကိရိယာများပိတ်ဆင်ထားခြင်း စွမ်းအင်အသုံးနည်းသော Lighting စနစ်တပ်ဆင်ခြင်း စက်ပစ္စည်းနှင့် Lighting အသုံးပြုမှုကို စောင့်ကြည့်ထိန်းသိမ်းရေးစနစ်ထားရှိခြင်း (ဥပမာ-အသုံးမပြုမီဖွင့်ထားခြင်း၊ စက်ဖွင့်ထားခြင်းမျိုး မရှိစေရန်)
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ

မြေအောက်ရေသုံးစွဲမှု

ရည်ရွယ်ချက်	ရေသုံးစွဲမှုလျော့ချရေး
လိုက်နာရမည့်စည်းကမ်း	The Underground Water Act (1930)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> ရေအသုံးပြုမှု သိရှိနိုင်သော မီတာတပ်ဆင်ခြင်း ဝန်ထမ်းများအားအသိပညာပေးခြင်းနှင့် လိုက်နာဆောင်ရွက်ရန် တိုက်တွန်းခြင်း စက်ရုံရှိတာဝန်ရှိပုဂ္ဂိုလ်များအား (Third Party) နေပြင်မြေအောက်ရေအကျိုးရှိရှိအသုံးချရန်စည်းကမ်းချက်နဲ့အညီ လမ်းညွှန်ထားခြင်း။
တာဝန်ယူရမည့် ပုဂ္ဂိုလ်	မန်နေဂျာ <ul style="list-style-type: none"> ရေ အသုံးပြုမှုစာရင်း စစ်ဆေးခြင်း ဝန်ထမ်းများလိုက်နာဆောင်ရွက်မှု စစ်ဆေးခြင်း

အရေးပေါ်အခြေအနေတုန့်ပြန်မှု

ရည်ရွယ်ချက်	စက်ရုံတွင်းမတော်တဆထိခိုက်မှု လျော့ချရေး
လိုက်နာရမည့်စည်းကမ်း	အလုပ်အကိုင်နှင့် ကျွမ်းကျင်မှုဖွံ့ဖြိုးတိုးတက်ရေးဥပဒေ (၂၀၁၃), ILO guide to Myanmar Labour Law (2017)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> အရေးပေါ်အခြေအနေဖြစ်သော (မီး၊ ငလျင်၊ ရေကြီးရေလျှံမှု) တို့အတွက် စက်ရုံတွင်း စီမံခန့်ခွဲမှုရှိခြင်း စက်ရုံအိမ်သတ်စနစ်များကို ပုံမှန်စစ်ဆေးခြင်း ရေးဆွဲထားသော အရေးပေါ်တုန့်ပြန်ရေး အစီအစဉ်များကို ဝန်ထမ်းများ အကျွမ်းတဝင်ဖြစ်စေရန် စီမံထားခြင်း လောင်စာသိုလှောင်နေရာများ၊ လျှပ်စစ်ဖြန့်ဖြူးရေးနေရာများကို အဓိကထားပြီး စောင့်ကြည့်စစ်ဆေးခြင်း၊ ပြုပြင်မွန်းမံခြင်း ပုံမှန်မီးဘေးကာကွယ်ရေး၊ ငလျင်လုပ်ခတ်လျှင် ပြုလုပ်ရမည့်ပုံစံများ၊ ရေကြီးရေလျှံမှု အခြေအနေထိန်းသိမ်းရေး အစီအစဉ်များ၊ ရှေးဦးပြုစုခြင်းသင်တန်းများကို ပုံမှန်လေ့ကျင့်မှုများ သင်ကြားမှုများ ပြုလုပ်ခြင်း အရေးပေါ်ဆက်သွယ်ရန် ဖုန်းနံပါတ်၊ လိပ်စာများ၊ အများသူငါမြင်သာစေသောနေရာများတွင် ကပ်ထားခြင်း စက်ရုံတွင်း မီးသတ်အဖွဲ့ ငယ်၊ အန္တရာယ်ကင်းရှင်းရေး စောင့်ကြည့်ရေးအဖွဲ့ငယ်များထားရှိပြီး လစဉ် ဆွေးနွေးတိုင်ပင်ခြင်း လေ့ကျင့်ခြင်းများ ပြုလုပ်ခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	<ul style="list-style-type: none"> Manager and EHS officer မီးသတ်သင်တန်းများ ၃ လတစ်ကြိမ်ပြုလုပ်ရန်စီမံပေးခြင်း အရေးပေါ်အခြေအနေနှင့် မတော်တဆထိခိုက်မှုမရှိစေရေး စောင့်ကြည့်စစ်ဆေးခြင်း

ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြည့်မှု

ကဏ္ဍ	အမျိုးအစား	ကြိမ်နှုန်း	နေရာ	တာဝန်ရှိသူ
စီမံကိန်းလည်ပတ်ချိန်				
လေထု	PM _{2.5} , PM ₁₀ , SO ₂ , NO ₂	တစ်နှစ် ၂ ကြိမ်	ထုပ်လုပ်မှု ဧရိယာအတွင်း	PINNACLE SPORTING GOODS (MYANMAR) CO., LTD.
အမှိုက်စွန့်ပစ်မှု	အစိုင်အခဲ၊ အရည် အဖျက်စွန့်ပစ်မှုများ	အပတ်စဉ်	စက်ရုံအတွင်း ပြန်လည်အသုံးပြုရန်နှင့် စွန့်ပစ်ရန်ဟူ၍ အမှိုက်ပုံများအား ခွဲခြားခြင်း	PINNACLE SPORTING GOODS (MYANMAR) CO., LTD.
မီးဘေးအန္တရာယ်	မီးသတ်ဆေးဘူးပစ္စည်းများနှင့်အရေးပေါ်ဖုန်းနံပါတ်များ	လစဉ်	စက်ရုံဧရိယာ အတွင်း	PINNACLE SPORTING GOODS (MYANMAR) CO., LTD.
အလင်းရောင်ပြင်းပြမှု	အလင်းရောင်ပေးခြင်း	တစ်နှစ် ၂ ကြိမ်	ထုပ်လုပ်မှု ဧရိယာအတွင်း (ပိတ်ဖတ်ခြင်းနှင့် အရည်အသွေး စစ်ဆေးခြင်း)	PINNACLE SPORTING GOODS (MYANMAR) CO., LTD.
လုပ်ငန်းဖြတ်သိမ်းခြင်းကာလ				
လေထု	PM _{2.5} , PM ₁₀ , SO ₂ , NO ₂	ဖြတ်သိမ်းမှု ကာလအတွင်း ၁ ကြိမ်	ထုပ်လုပ်မှု ဧရိယာအတွင်း	Land owner
ဆူညံသံ	ဆူညံသံ ပမာဏ	ထိကာလအတွင်း ၁ ကြိမ်	ဖြတ်သိမ်းမှု ဧရိယာ	Land owner
ပြန်လည်မွမ်းမံခြင်း	သစ်ပင်များပြန်လည်စိုက်ပျိုးခြင်း		ဖြတ်သိမ်းမည့် ဧရိယာအားလုံး	Land owner

ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြည့်မှု ခန့်မှန်းကုန်ကျစရိတ်

စဉ်	အကြောင်းအရာ	အကြိမ်အရေအတွက်	ကုန်ကြစရိတ် (အမေရိကန်ဒေါ်လာ)
လျော့ချခြင်းအစီအစဉ်			
၁.	စက်ရုံအတွင်းလေအဝင်အထွက်အစီအစဉ်	၁နှစ် တကြိမ်	နှစ်စဉ် ဒေါ်လာ ၄၀၀
၂.	စက်ရုံဧရိယာအတွင်း သစ်ပင်များစိုက်ပျိုးခြင်း	၃လ တကြိမ်	၃လခြား ဒေါ်လာ ၁၄၀
၃.	အစိုင်အခဲအမှိုက်ပစ်ခြင်း	၁၂ ကြိမ်	နှစ်စဉ် ဒေါ်လာ ၂၀၀၀
၄.	တစ်ကိုယ်ရည်သုံး ကာကွယ်ရေးပစ္စည်းများဝယ်ယူခြင်း	၆ လ တကြိမ်	၆ လခြား ဒေါ်လာ ၃၀၀
၅.	ဆေးပစ္စည်းများနှင့် ကျန်းမာရေးစစ်ဆေးခြင်း	၁ နှစ် တကြိမ်	နှစ်စဉ် ဒေါ်လာ ၁၀၀၀
အရေးပေါ်အစီအစဉ်			
၁.	မီးသတ်ဆေးဘူး	၁လ တကြိမ်	လစဉ် ဒေါ်လာ ၆၀၀
၂.	မီးသတ်အချက်ပြ စနစ်	၁လ တကြိမ်	
၃.	ရှေးဦးသူနာပြု ပစ္စည်းများ	၁လ တကြိမ်	
စောင့်ကြပ်ကြည့်ရှုရေးအစီအစဉ်			
၁.	ရေဆိုးရေညစ်	၂ ကြိမ်	၁နှစ် ဒေါ်လာ ၄၀၀
၂.	ဆူညံသံ	၂ ကြိမ်	၁နှစ် ဒေါ်လာ ၆၀၀
၃.	စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာ	၁ ကြိမ်	ဒေါ်လာ ၂၀၀၀

လူမှုအကျိုးတူပူးပေါင်း ပါဝင်မှု

EMERALD FOOTWEAR MFG CO., LTD.တွင် CSR အတွက် အမြတ်ငွေ၏ ၂% ကို ကျန်းမာရေး၊ ပညာရေးနှင့် နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေးတို့ အတွက် အသုံးပြုသွားမည် ဖြစ်ပါသည်။

ကျန်းမာရေး	ဝန်ထမ်းများ ကျန်းမာရေး စောင့်ရှောက်မှု	၀.၅ %
ပညာရေး	ပညာရေးကဏ္ဍ မြှင့်တင်ရေးနှင့် လူ့အခွင့်အရေး အသိပညာပေးခြင်း	၀.၅ %
နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေး	ဒေသတွင်း လိုအပ်သကဲ့သို့ လှူဒါန်းခြင်း	၁ %

စက်ရုံ၏ဆောင်ရွက်ချက်များ



PINNACLE SPROTING GOODS (MYANMAR) CO., LTD. ဝန်ထမ်းများအတွက်သုံးရေသောက်ရေပြင်ဆင်ထားရှိမှု



PINNACLE SPROTING GOODS (MYANMAR) CO., LTD. ၏ လျှပ်စစ်သုံးစွဲမှုအတွက်ပြင်ဆင်ထားရှိမှု



PINNACLE SPROTING GOODS (MYANMAR) CO., LTD. ၏ မီးဘေးအန္တရာယ်အတွက်ပြင်ဆင်ထားရှိမှုများ



စက်ရုံအတွင်းအမှိုက်စွန့်ပစ်မှုအခြေနေများနှင့်၊ ဝန်ထမ်းများအတွက်အိမ်သာထားရှိမှုများ နှင့် ရေမြောင်းထားရှိမှုအခြေနေများ

*Thank You for Your Patient
Attention!*

APPENDIX F

List of Commitment

Emerald Footwear MFG Co., Ltd ၏ CMP စနစ်ဖြင့် ရှမ်းဖိနပ်အမျိုးမျိုးနှင့် ဖိနပ်အစိတ်အပိုင်းများ ထုတ်လုပ်ခြင်းလုပ်ငန်းလည်ပတ်ဆောင်ရွက်ခြင်းကြောင့် ဖြစ်ပေါ်လာနိုင်သော သဘာဝပတ်ဝန်းကျင်၊ လူမှုဘဝ နှင့် ကျန်းမာရေး ထိခိုက်မှုများရှိခဲ့ပါက လျော့ချရေး၊ စီမံခန့်ခွဲရေး နှင့် တားဆီးရေး အစီအစဉ် များကို ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (Environmental Management Plan – EMP) တွင် ပါဝင်ရမည့် အချက်များကို အကောင်အထည်ဖော် စီမံဆောင်ရွက်သွားမည် ဖြစ်ကြောင်း၊ အောက်ဖော်ပြပါ ဇယားဖြင့် အကျဉ်းချုပ် စာရင်းပြုစု ဖော်ပြထားပါသည်။

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
နိဒါန်း	၁	အဆိုပြုလုပ်ငန်း၏နောက်ခံအကြောင်းအရာ Emerald Footwear MFG Co., Ltd သည် CMP စနစ်ဖြင့် ရှမ်းဖိနပ်အမျိုးမျိုးနှင့် ဖိနပ်အစိတ်အပိုင်းများထုတ်လုပ်ပြီး နိုင်ငံခြားသို့တင်ပို့ရောင်းချသွားမည်ဖြစ်သည်။ မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်၏ ခွင့်ပြုမိန့်အမှတ် (၁၀၆၄/၂၀၁၆) သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏စာအမှတ် ရက-၁/၃/၄ (အီးအိုင်အေ) (၁၅၀၁/၂၀၂၀)ဖြင့် ကနဦးသဘာဝပတ်ဝန်းကျင်စိစစ်အကဲဖြတ်ခြင်း (IEE) ရေးဆွဲရန် သဘောထားပြန်ကြားခြင်း	အခန်း (၁)
	၁.၁	မြေကွက်အမှတ် (၃၇) မြေတိုင်းရပ်ကွက်အမှတ် (၁၄၄)၊ စက်မှုဇုန် ၊ ဒဂုံမြို့သစ်တောင်ပိုင်းမြို့နယ် ၊ ရန်ကုန်တိုင်းဒေသကြီး။ မြေဧရိယာ ၁.၁၃၆၇ ဧက (၄၆၀၀ စတုရန်းမီတာ)	
	၂	အဆိုပြုလုပ်ငန်း၏ရည်ရွယ်ချက် တရုတ်နိုင်ငံမှ ကုန်ကြမ်းပစ္စည်းများကို ရယူပြီး CMP စနစ်ဖြင့် ထုတ်လုပ်၍ နိုင်ငံခြားသို့ပြန်လည်တင်ပို့ရောင်းချသွားမည်ဖြစ်ပါသည်။	အခန်းခွဲ (၂.၂.၁)
	၂.၁	အဆိုပြုလုပ်ငန်းသည် ပြည်ပမှ ပညာရှင်၃၅ ဦး၊ ပြည်တွင်းလုပ်သား ၂၂၁၇ဦးထိခန့်အပ်ပြီး ရှမ်းဖိနပ်အမျိုးမျိုးနှင့် ဖိနပ်အစိတ်အပိုင်းများကို	အခန်းခွဲ (၂.၂.၃)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
စီမံကိန်းအကြောင်းအရာဖော်ပြချက်		ထုတ်လုပ်သွားမည်ဖြစ်သည်။	
	၂.၂	အဆိုပြုလုပ်ငန်း၏ အဓိကကုန်ကြမ်းမှာ- ပိတ်စ(လိုင်နင်)၊လည်သာဖြစ်ပြီးအခြားလိုအပ်သည့်ဆက်စပ်ပစ္စည်းများကိုလည်လည်းတရုတ်နိုင်ငံမှတင်သွင်းသွားမည်ဖြစ်သည်။	အခန်းခွဲ (၂.၂.၁)
	၂.၃	အဆိုပြုလုပ်ငန်း၏ထုတ်ကုန်မှာ- ရှူးဖိနပ်အမျိုးမျိုးနှင့် ဖိနပ်အစိတ်အပိုင်းများဖြစ်ပါသည်။	အခန်းခွဲ (၂.၁.၂)
မူဝါဒ၊ ဥပဒေနှင့် အဖွဲ့အစည်းဆိုင်ရာမူဘောင်များ	၃	ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂) ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး နည်းဥပဒေ (၂၀၁၄) ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း (၂၀၁၅) မြန်မာနိုင်ငံမှ ချမှတ်ထားသော စက်ရုံနှင့် သက်ဆိုင်သည့် အခြား လိုက်နာဆောင်ရွက်ရမည့် လုပ်ထုံးလုပ်နည်း၊ ဥပဒေ၊ နည်းဥပဒေ နှင့် မူဝါဒများ အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) နှင့် နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံသတ်မှတ်ချက်များနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များ	အခန်း (၅)
ပတ်ဝန်းကျင် အရည်အသွေးတိုင်းတာမှု	၄	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) နှင့် နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံသတ်မှတ်ချက်များနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များကို အခြေခံလေ့လာ တိုင်းတာထားပါသည်။	အခန်း (၆)
ဆူညံသံ	၄.၁	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)၏ အမြင့်ဆုံးလက်ခံနိုင်သည့် ဆူညံသံအဆင့် (Noise level) လမ်းညွှန်သတ်မှတ်ချက် စက်မှုဇုန် ဧရိယာတွင် (70 One hour LAeq (dBA)) ဖြင့်နှိုင်းယှဉ် ဖော်ပြထားပါသည်။	အခန်းခွဲ (၆.၂.၃)
လေအရည်အသွေး	၄.၂	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)၏ ထုတ်လွှတ်အမိုးအငွေ့ (Air emissions) လမ်းညွှန်သတ်မှတ်ချက် တို့ဖြင့် နှိုင်းယှဉ် ဖော်ပြထားပါသည်။	အခန်းခွဲ (၆.၂.၂)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
စက်ရုံတွင်း အလင်းရောင် ရရှိမှု	၄.၃	Illumination and Limiting Glare Index based on IES Code, 1968 ဖြင့် နှိုင်းယှဉ် ဖော်ပြထားပါသည်။	အခန်းခွဲ (၆.၂.၄)
ဒေသဆိုင်ရာအချက်အလက်များ	၄.၄	အဆိုပြုလုပ်ငန်းတည်ရှိသည့် တောင်ဒဂုံမြို့နယ်၏ဒေသဆိုင်ရာအချက်အလက်များကိုဖော်ပြထားပါသည်။	အခန်းခွဲ (၆.၅)
ထိခိုက်မှုဆန်းစစ်ခြင်းနှင့်လျှော့ချရေး ရန်နည်းလမ်းများ	၅	ထိခိုက်မှုဆန်းစစ်ခြင်း <ul style="list-style-type: none"> • ကောင်းကျိုး အလုပ်ကိုင်အခွင့်အလမ်းများပေါများလာခြင်း၊ လမ်းပန်းဆက်သွယ်ရေးကောင်းမွန်လာခြင်း၊ နည်းပညာများတိုးတက်လာခြင်း • ဆိုးကျိုး သဘာဝပတ်ဝန်းကျင်အရင်းအမြစ်များ၊ ဂေဟစနစ်အရင်းအမြစ်များ၊ လူသားများအပေါ် ထိခိုက်မှုများ၊ အမှိုက်စွန့်ပစ်ခြင်းကြောင့်ထိခိုက်မှုများ 	အခန်း (၇)
	၅.၁	ဆန်းစစ်ခြင်းနည်းလမ်း သိသာထင်ရှားသောသက်ရောက်မှု = (ပမာဏ+အချိန်+ကျယ်ပြန့်မှု) × ဖြစ်နိုင်ချေ	အခန်းခွဲ (၇.၂)
ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု	၆	Emerald Footwear MFG Co., Ltd ၏ ကနဦးသဘာဝပတ်ဝန်းကျင်စိစစ်အကဲဖြတ်ခြင်း (IEE) အတွက် စက်ရုံစီမံခန့်ခွဲရေးအဖွဲ့၊ အလုပ်သမားများ၊ ဒေသခံလူထုများ၏ အမြင်၊ သက်ဆိုင်ရာ တာဝန်ရှိသူတို့၏အကြံပြုချက်များနှင့် ကွင်းဆင်းလေ့လာသူများမှ ဆွေးနွေးတိုင်ပင်မှုတို့ အပေါ် အခြေခံပြီး ဆောင်ရွက်သွားမည် ဖြစ်သည်။ IEE တွင် စက်ရုံအတွင်း ဘေးအန္တရာယ် ကင်းရှင်းရေးစီမံခန့်ခွဲမှုများကို လိုက်နာရန်အတွက် ထည့်သွင်းဖော်ပြထားပါသည်။	အခန်း (၈)
လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်များ	၆.၁	စက်ရုံအတွင်းလေဝင်လေထွက်ကောင်းမွန်စေရန် လေပန်ကာများတပ်ဆင်ပေးရမည်။ ကာဗွန်ဒိုင်အောက်ဆိုက်လျော့ချရန်အတွက် စက်ရုံအနီးအတွင်း သစ်ပင်ပန်းပင်များစိုက်ပျိုးရမည်။	ဇယား (၈.၂)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		အဆိုပြုလုပ်ငန်းဧရိယာအတွင်း စွန့်ပစ်ပစ္စည်းများ မီးရှို့ခြင်းကို တားမြစ်ထားမည်။ လေထုညစ်ညမ်းမှုလျော့ချရန် လုပ်ငန်းသုံးယာဉ်များ၊ မီးစက်များနှင့် လုပ်ငန်းဆိုင်ရာ စက်ပစ္စည်းများကို ပုံမှန်စောင့်စစ်ဆေးရမည်။ ပတ်ဝန်းကျင်အပေါ် မီးခိုးထွက်ရှိမှုလျော့နည်းစေရန် မီးခိုးခေါင်းတိုင်များ တပ်ဆင်ရမည်။ မော်တော်ယာဉ်များ၊ ရေစုပ်စက်များနှင့် မီးစက်များကို ပုံမှန် ပြုပြင်၊ ထိန်းသိမ်းထားရှိရမည်။	
ဆူညံသံထွက်ရှိမှု	၆.၂	မီးစက်ခန်းများထားရှိခြင်းနှင့် အခြားသက်ဆိုင်သည့် ပစ္စည်းများအား စနစ်တကျ ထိန်းသိမ်းထားရှိရမည်။ ဝန်ထမ်းများကို သက်ဆိုင်ရာကိစ္စရပ်များနှင့် ပတ်သက်၍ သင့်တော်သော သင်တန်းများပေးခြင်း၊ ဆူညံသံထွက်ရှိသည့်နေရာများတွင် PPE များကို ဝတ်ဆင်စေခြင်း။	ဇယား (၈.၂)
ရေသုံးစွဲမှု	၆.၃	ရေသုံးစွဲမှုအားထိန်းချုပ်ရန်ရေမီတာတပ်ဆင်ထားရှိရမည်။ ရေသုံးစွဲခြင်းနှင့်ပတ်သက်၍ ထိန်းသိမ်းရမည့်နည်းလမ်းများ၊ စနစ်တကျသုံးစွဲပုံသုံးစွဲနည်းများကို ဝန်ထမ်းများအား လေ့ကျင့်သင်ကြားပေးခြင်းများ ပြုလုပ်ပေးရမည်။ စက်ရုံသုံးစက်ပစ္စည်းများ၊ မော်တော်ယာဉ်များအတွက် လိုအပ်သည့်လောင်စာဆီသုံးစွဲမှုအား စနစ်တကျစီမံပေးခြင်းအားဖြင့် ရေမြောင်းစနစ်ညစ်ညမ်းခြင်းကို ရှောင်ရှားသင့်သည်။ စက်ရုံအနီးပတ်ဝန်းကျင်တွင် သစ်ပင်များစိုက်ပျိုးရမည်။	ဇယား (၈.၂)
အမှိုက်စွန့်ပစ်မှု	၆.၄	စက်ရုံအတွင်း အမှိုက်ပုံးများထားရှိခြင်း။ သတ်မှတ်ထားသောနေရာတွင်သာ အမှိုက်စို၊ အမှိုက်ခြောက်များ ခွဲခြားစွန့်ပစ်ခြင်း။ အမှိုက်များကို ရန်ကုန်စည်ပင်သာယာရေးကော်မတီနှင့် ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။	ဇယား (၈.၂)
စွန့်ပစ်အရည်	၆.၅	ဆီကန်၊ မိလ္လာကန်များကို ပုံမှန်စစ်ဆေးခြင်း၊ သန့်စင်ခြင်းပြုလုပ်ခြင်း။	ဇယား (၈.၂)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
မီးဘေးအန္တရာယ်	၆.၆	မီးအန္တရာယ်အရေးပေါ်အခြေအနေများအတွက် စက်ရုံအတွင်းတွင် မီးသတ်ဆေးဘူးများ၊ မီးသတ်ရေပိုက်များ၊ မီးသတ်ရေကန် ထားရှိရမည်။ အရေးပေါ်ထွက်ပေါက်များနှင့် စုရပ်နေရာများအား လမ်းညွှန်ပြ ထားရှိရမည်။ မီးသတ်ရေလျှောင့်ကန်များ၊ မီးငြိမ်းသတ်ရေးကရိယာများကို ပုံမှန်စစ်ဆေးခြင်း စက်ရုံအတွင်း အရေးပေါ်အချက်ပေးစနစ်များ တပ်ဆင်ခြင်း အရေးပေါ်ထွက်ပေါက်များတစ်လျှောက်တွင် စက်ပစ္စည်းများနှင့် အခြားသောကုန်ပစ္စည်းများ ပိတ်ဆို့ထားခြင်း မရှိရန် စီစဉ်ထားရမည်။	အခန်းခွဲ (၈.၆.၄)
လုပ်ငန်းခွင်ထိခိုက်မှုနှင့် ကျန်းမာရေး	၆.၇	ရှေးဦးပြုစုနည်း သင်တန်းများ၊ ဘေးအန္တရာယ်ကင်းရှင်းရေး လေ့ကျင့်မှု၊ မီးငြိမ်းသတ်နည်းသင်တန်းများ၊ အခြားလိုအပ်သော လေ့ကျင့်မှုများ၊ စက်ပစ္စည်းများကို စနစ်တကျကိုင်တွယ်မှုများအား သင်တန်းပေးခြင်း လုပ်ငန်းခွင်အတွင်း အလုပ်သမားများ အလင်းရောင်ကောင်းစွာရရှိစေရန်နှင့် အမြင်အာရုံမထိခိုက်စေရန် အလင်းရောင်များကို လုံလောက်စွာ ထားရှိခြင်း ဌာနတစ်ခုချင်းစီအတွက် တစ်ကိုယ်ရေသုံးကာကွယ်ရေးပစ္စည်းများ ထောက်ပံ့ပေးခြင်း လျှပ်စစ်အန္တရာယ်ကာကွယ်ရန်အတွက် လျှပ်စစ်ထိန်းသိမ်းရေးဝန်ထမ်းများအား ထားရှိ၍ အဆိုင်းခွဲ၍ ပုံမှန်စစ်ဆေးကာကွယ်မှုများပြုလုပ်စေခြင်း ဝန်ထမ်းများ၏ကျန်းမာရေးအတွက် စက်ရုံတွင် စီမံခန့်ခွဲခြင်း လုပ်သားများအတွက် ဓနာရီအတွင်း လက်ခံနိုင်သည့် အမြင့်ဆုံးဆူညံမှုနှုန်းမှာ 90 dB(A) ဖြစ်သည်။ ထို့ကြောင့် အသံဆူညံသည့်နေရာများတွင် အသံလုံသည့် နားကြပ်များ၊ နားအကာအကွယ်ပစ္စည်းများ တပ်ဆင်စေခြင်း	အခန်းခွဲ (၈.၆.၉)
အန္တရာယ်ရှိ ဓာတုပစ္စည်းများနှင့်စွန့်ပစ်ပစ္စည်းများ	၆.၈	အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများ နှင့် ဓာတုပစ္စည်းများ သိုလှောင်၊ သိမ်းဆည်းမှုအား ပုံမှန်စောင့်ကြပ်စစ်ဆေးခြင်း။ Material Safety Data Sheet (MSDS) တွင်ပါရှိသောလမ်းညွှန်ချက်များအတိုင်း လိုက်နာ၍ ဓာတုပစ္စည်းများအား ဂရုတစိုက်ကိုင်တွယ်အသုံးပြုရန်လိုအပ်ပါသည်။ လုပ်ငန်းခွင်ကျန်းမာရေး လုံခြုံမှုနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာ လိုအပ်ချက်များနှင့် အညီ	ဇယား (၈.၂)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		<p>ဓာတုပစ္စည်းများကို စနစ်တကျစွန့်ပစ်ခြင်း။</p> <p>ဓာတုပစ္စည်းသိုလှောင်သည့် ပုံးခွံများကို စနစ်တကျပြန်လည်အသုံးပြုခြင်း (သို့မဟုတ်) စနစ်တကျစွန့်ပစ်ခြင်း။</p> <p>အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများကို ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီ (သို့မဟုတ်) လိုင်စင်ရ အမှိုက်စွန့်ပစ်ရေးဆိုင်ရာ အဖွဲ့အစည်းများ (ဥပမာ-DOWA or YCDC)နှင့် ချိတ်ဆက်၍ စွန့်ပစ်ခြင်း။</p>	
အရေးပေါ် အခြေအနေ	၆.၉	<p>မီးဘေး၊ ငလျင်၊ ရေလွှမ်းမိုးမှု၊ မုန်တိုင်း နှင့်အခြားအရေးပေါ်ကိစ္စများကို ပို၍သင့်တော်သော စီမံခန့်ခွဲမှုများပြုလုပ်ခြင်း</p> <p>စက်ရုံ၏ ကဏ္ဍတစ်ခုချင်းတိုင်းတွင် မီးငြိမ်းသတ်ရေးကရိယာများနှင့် မီးငြိမ်းသတ်ရေးစနစ်များ ထားရှိခြင်းနှင့် စစ်ဆေးခြင်း</p> <p>မီးဘေးထွက်ပေါက်၊ အရေးပေါ်ထွက်ပေါက် အစရှိသည်တို့ကို အလုပ်သမားများနှင့် တိုင်ပင်ဆွေးနွေးပြီး အသေးစိတ်အကဲဖြတ်ခြင်း</p> <p>မီးငြိမ်းသတ်ခြင်းအား ပုံမှန်လေ့ကျင့်ထားရှိခြင်း</p> <p>ငလျင်လှုပ်တုံ့အခါ လုံခြုံသည့်နေရာတွင်သာနေရန်၊ အပြင်မထွက်ခြင်း၊ အပြင်တွင်လုပ်ကိုင်ရသည့် လုပ်သားများမှာ သစ်ပင်၊ အဆောက်အဦများကို သတိထားရန်နှင့် သက်ဆိုင်ရာလုံခြုံရေးသင်တန်းများပို့ချခြင်း</p> <p>မုန်တိုင်းတိုက်ခြင်း၊ ရေကြီးခြင်း၊ မြေပြိုခြင်းတို့ကြောင့် မြေကွဲသို့သော အခြားအန္တရာယ်ရှိတိရိစ္ဆာန်များအန္တရာယ်များကို သတိပေးခြင်း</p> <p>ရေးဦးသူနာပြုခြင်းကဲ့သို့သော ကျန်းမာရေးဆိုင်ရာအဖွဲ့အစည်းများ ပြင်ဆင်ထားရှိခြင်း</p> <p>နီးစပ်ရာ ဆေးရုံ၊ ဆေးခန်း၊ ရဲစခန်း၊ မီးသတ်ဌာနတို့၏ ဆက်သွယ်နိုင်မည့် ဖုန်းနံပါတ်များအား လူအများမြင်သာသည့် နေရာများတွင် ထားရှိခြင်း</p> <p>မီးသတ်အဖွဲ့၊ ကယ်ဆယ်ရေးအဖွဲ့ နှင့် လုံခြုံရေးဟူသော အဖွဲ့များ ထားရှိ၍ လစဉ် လုံခြုံရေးများအတွက် အစည်းအဝေးများပြုလုပ် စီမံခန့်ခွဲခြင်း</p> <p>ဘေးအန္တရာယ်ဆိုင်ရာ သင်တန်းများအား သေချာပြုလုပ်စေခြင်း</p>	အခန်းခွဲ (၈.၆.၂)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
စောင့်ကြပ်ကြည့်ရှုမှု	၆.၁၀	အဆိုပြုစီမံကိန်းသည် ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာအား ၆လ တစ်ကြိမ် ဝန်ကြီးဌာနများသို့ တင်ပြရမည်။	အခန်းခွဲ (၈.၅)
လေအရည်အသွေး စစ်ဆေးမှု	၆.၁၁	SO ₂ , NO ₂ , CO, O ₃ , PM _{2.5} , PM ₁₀ တစ်နှစ် ၂ ကြိမ် (လုပ်ငန်းစတင်ပြီး ၃နှစ်တွင်) အဆိုပြုလုပ်ငန်း/စက်ရုံဝန်းအတွင်း ၁၀သိန်း (တစ်နှစ်)	ဇယား (၈.၄)
စွန့်ပစ်ပစ္စည်းထွက်ရှိမှုအခြေအနေ	၆.၁၂	စွန့်ပစ်ပစ္စည်းအပိုင်အခဲ၊ စွန့်ပစ်ရည်နှင့် အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်း အပတ်စဉ် စက်ရုံအတွင်း ပြန်လည်အသုံးပြုရန်ထားရှိသည့်နေရာနှင့် အမှိုက်ကန်များ ၃သောင်းခွဲ (ကားတစ်စီးစာ)	ဇယား (၈.၄)
မီးဘေးအန္တရာယ် စစ်ဆေးမှု	၆.၁၃	မီးငြိမ်းသတ်ရေးကိရိယာများ လစဉ် စက်ရုံအတွင်း ၆ သိန်း (တစ်နှစ်)	ဇယား (၈.၄)
စက်ရုံတွင်း အလင်းရောင်အခြေအနေ	၆.၁၄	အလင်းရောင် လစဉ် ကုန်ပစ္စည်းဖြတ်တောက်ခြင်း၊ အရည်အသွေးစစ်ဆေးခြင်းကဲ့သို့သော လုပ်ငန်းများလုပ်ကိုင်သည့် နေရာ ၂သိန်း (တစ်နှစ်)	ဇယား (၈.၄)
ဘေးအန္တရာယ်ဆိုင်ရာ သင်တန်းပို့ချခြင်း	၆.၁၅	လုပ်ငန်းခွင်၌ ကြိုတင်ခန့်မှန်းနိုင်သော အရေးပေါ်အခြေအနေများကို အရေးပေါ်တုံ့ပြန်နိုင်ရန် အစီအစဉ်များ ချမှတ်ဆောင်ရွက်ခြင်း	အခန်းခွဲ (၈.၆.၆)
မကျေနပ်မှုများနှင့် ပြဿနာများ ဖြေရှင်းခြင်း	၆.၁၆	စီမံကိန်းအနီးပတ်ဝန်းကျင်နေထိုင်သောသူများ (သို့) သက်ဆိုင်သူများသည် သူတို့ခံစားနေရသော ပြဿနာများ၊ သက်ရောက်မှုများနှင့် ပတ်သက်၍ ဖြေရှင်းမှုများပြုလုပ်ရန်။	အခန်းခွဲ (၈.၇)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		စက်ရုံ၏ တာဝန်ရှိသူများ၊ စက်မှုဇုန် စီမံခန့်ခွဲရေး ကော်မတီ၊ အုပ်ချုပ်ရေးဦးစီးဌာနတို့ဖြင့် ပူးပေါင်း ချိတ်ဆက် လုပ်ဆောင်ခြင်း။ ကော်မတီအဆင့်တွင် အခြားမဖြေရှင်းနိုင်သော ပြဿနာများကို တာဝန်ရှိအာဏာပိုင်များသို့ တင်ပြပြီး တရားရေးအရ အဆုံးအဖြတ်ပြုလုပ်မည် ဖြစ်သည်။	
လူထုအကျိုးတူပူးပေါင်းပါဝင်မှု	၆.၁၇	အဆိုပြုလုပ်ငန်းသည် လူထုအကျိုးပြုပူးပေါင်းပါဝင်မှုကို ကျန်းမာရေး၊ ပညာရေးနှင့် နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေးအတွက် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်က ချမှတ်သည့် အတိုင်း ကုမ္ပဏီ၏ အကျိုးအမြတ် ၂ ရာခိုင်နှုန်းအား နှစ်စဉ် ထည့်ဝင်သွားမည်ဖြစ်သည်။	အခန်းခွဲ (၉.၂)
အများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးခြင်း	၇	Myanwei Environmental Solutions Company Limited Facebook pageတွင် အောက်ပါလင့်ခ်ဖြင့်ဖော်ပြထားပါသည်။ (https://drive.google.com/file/d/1c9e3NP5na19e3NP5na1YcN2mKMrI3OXjwOn7VAyn8/view?usp=drivesdk)	အခန်း (၉)
နိဂုံးနှင့်သုံးသပ်ချက်	၈	အကျဉ်းချုပ်အားဖြင့် ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒလမ်းညွှန်ချက်များအတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာဆောင်ရွက်ကျင့်သုံးရန်တာဝန်များကို ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်တွင် ဖော်ပြရှင်းလင်းတင်ပြထားပါသည်။	အခန်း (၁၀)