

TAE HYUN (MYANMAR) INDUSTRY COMPANY LIMITED

Environmental Management Plan

**Manufacturing of Wearing Apparel (Such as Various Kinds
of Jacket and Cap) on CMP Basis**



Myanwei Environmental Solutions Co., Ltd.

23-Dec-21

Date: 23/12/2021

Attention: Dear Director

Environmental Conservation Department

Subject: Environmental Management Plan (EMP) Report in respect of the Manufacturing of Wearing Apparel by Tae Hyun (Myanmar) Industry Company Limited.

EMP report describes the environmental condition of a project, including significant impact, formulation of mitigation measures and preparation of institutional requirements and environmental monitoring.

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.



LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Tae Hyun (Myanmar) Industry Co., Ltd.

Plot No. 139, Myay Taing Block No. Section (4), Industrial Zone, Haing Thar Yar Township, Yangon Region.

Date: 29/12/2021

Dear: Director
Environmental Conservation Department
Nay Pyi Taw

Subject: Environmental Management Plan (EMP) Report in respect of the Manufacturing of Wearing Apparel by Tae Hyun (Myanmar) Industry Company Limited.

We refer to the captioned EMP report, which has been prepared by Myanwei Environmental Solutions Co., Ltd. (Third Party Consultant) in compliance with EIA procedure (2015) and other related laws/rules.

We believe, to the best of our knowledge at the time of writing, that;

- The EMP report is accurate and complete
- The EMP report has been prepared in strict compliance with all applicable laws, rules, regulations and procedures in force.

Tae Hyun (Myanmar) Industry Company Limited. will at all times comply fully with all commitment and obligations in the EMP report.

We acknowledge and understand that



Mr. Koo Ja Yong
Director
Tae Hyun (Myanmar) Industry Co., Ltd.

TABLE OF CONTENTS

TABLE OF CONTENTS.....	I
LIST OF TABLES.....	V
LIST OF FIGURES.....	VII
LIST OF APPENDICES	IX
ABBREVIATION	X
အစီရင်ခံစာအကျဉ်းချုပ်.....	XI
EXECUTIVE SUMMARY.....	XXVI
1. INTRODUCTION.....	1-1
1.1. PROJECT BACKGROUND	1-5
1.1.1. Project Proponent Profile.....	1-6
1.1.2. Environmental Consult Profile	1-7
1.2. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN.....	1-8
1.2.1. This EMP Documents Aims.....	Error! Bookmark not defined.
2. POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK	2-9
2.1. MYANMAR REGULATORY FRAMEWORK	2-9
2.1.1. Laws and Regulations Related to Environmental and Social Considerations	2-9
2.2. NATIONAL ENVIRONMENTAL QUALITY (EMISSION) GUIDELINES	2-21
2.2.1. General Guidelines	2-21
2.2.2. Air Emission	2-21
2.2.3. Wastewater	2-22
2.2.4. IFC EHS Guidelines.....	2-24
2.3. INSTITUTIONAL ARRANGEMENT	2-25
2.4. INTERNATIONAL GUIDELINES	2-25
2.5. COMMITMENT OF TAE HYUN (MYANMAR) INDUSTRY COMPANY LIMITED	2-25
3. PROJECT DESCRIPTION.....	3-26
3.1. LOCATION OF PROPOSED PROJECT	3-26
3.1.1. Project Implementation.....	3-26
3.1.2. Adjacent Condition of Project Site.....	3-26
3.1.3. Site Description of Proposed Project Site	3-26
3.2. PRODUCTION PROCESS.....	3-32
3.2.1. Description of Production Process	3-32

3.2.2.	Products.....	3-34
3.3.	UTILITIES.....	3-35
3.3.1.	Raw Material.....	3-35
3.3.2.	Machinery and Equipment.....	3-36
3.3.3.	Human Resource.....	3-37
3.3.4.	Water Requirement.....	3-38
3.3.5.	Electricity and Fuel Requirement	3-39
3.3.6.	Electric Steam Boiler	3-39
3.4.	FACILITIES	3-40
3.4.1.	Fire Hazards Protect Facility	3-40
3.4.2.	Liquid Waste Control Facility	3-41
3.4.3.	Solid Waste Management Facility	3-41
3.4.4.	Ventilation System	3-42
4.	BRIEF DESCRIPTION OF SURROUNDING ENVIRONMENT	4-43
4.1.	METHODOLOGY FOR DATA COLLECTION AND ANALYSIS	4-43
4.2.	ENVIRONMENTAL BASELINE STUDY	4-43
4.2.1.	Site survey and Environmental Monitoring	4-43
4.2.2.	Air Quality	4-44
4.2.3.	Indoor temperature and humidity	4-46
4.2.4.	Noise Level	4-46
4.2.5.	Light	4-47
4.3.	PHYSICAL COMPONENT (SECONDARY DATA).....	4-49
4.3.1.	Topography.....	4-49
4.3.2.	Geology.....	4-49
4.3.3.	Tectonics.....	4-50
4.3.4.	Soil	4-51
4.3.5.	Hydrogeology.....	4-53
4.3.6.	Climate and Meteorology.....	4-53
4.4.	BIOLOGICAL COMPONENT (SECONDARY DATA).....	4-58
4.5.	SOCIO-ECONOMIC COMPONENT	4-59
4.5.1.	Population.....	4-59

Environmental Management Plan

4.5.2.	Religion	4-59
4.5.3.	Local Economy	4-59
4.5.4.	Public Infrastructure and Access.....	4-60
4.6.	CULTURAL AND VISUAL COMPONENTS	4-62
5.	ENVIRONMENTAL IMPACT AND MITIGATION MEASURES	5-63
5.1.	IMPACT IDENTIFICATION	5-63
5.1.1.	Positive Impact	5-63
5.1.2.	Negative Impact.....	5-63
5.2.	METHODOLOGY FOR THE ASSESSMENTS	5-64
5.3.	POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION AND DECOMMISSIONING PHASE	5-65
5.4.	SIGNIFICANT IMPACTS OF PROJECT ACTIVITY AND MITIGATION MEASURE	5-66
6.	ENVIRONMENTAL MANAGEMENT PLAN	6-72
6.1.	ENVIRONMENTAL MANAGEMENT SYSTEM.....	6-72
6.1.1.	Institutional Requirement.....	6-73
6.1.2.	Responsibilities of the EMP	6-73
6.1.3.	Structure and Responsibilities for the EMP Development and Implementation.....	6-74
6.2.	ENVIRONMENTAL MANAGEMENT PROCESS.....	6-75
6.3.	ENVIRONMENTAL MONITORING SCHEDULE AND REPORTING.....	6-78
6.4.	CAPACITY BUILDING AND TRAINING PLAN.....	6-79
6.4.1.	Assignment of responsibilities	6-79
6.4.2.	Emergency procedures	6-79
6.4.3.	Training for Emergencies	6-79
6.4.4.	Fire Prevention and Protection.....	6-79
6.4.5.	Fire Protection Equipment.....	6-80
6.4.6.	Fire Safety and Evacuation Plan	6-80
6.5.	GRIEVANCE REDRESS MECHANISM (GRM)	6-83
6.6.	CORPORATE SOCIAL RESPONSIBILITY (CSR) PLAN	6-84
6.6.1.	Public School	6-85
6.6.2.	Non-profit Training.....	6-85
6.6.3.	Healthcare.....	6-85
7.	PUBLIC CONSULTATION	7-86
7.1.	PUBLIC CONSULTATION PROCESS.....	7-86

8. CONCLUSION & RECOMMENDATION8-88

8.1. CONCLUSION.....8-88

8.2. RECOMMENDATION8-88

9. REFERENCE9-90

LIST OF TABLES

Table 1-1	Project Proponent Information	1-6
Table 1-2	Salient features of the project	1-6
Table 1-3	Member of EMP Study Team.....	1-7
Table 2-1	List of Myanmar's Law relating to environmental management	2-9
Table 2-2	WHO's Air Quality Guideline	2-22
Table 2-3	Wastewater, Storm Water Runoff, Effluent and Sanitary Discharges (general application)	2-23
Table 2-4	Community health and safety contents.....	2-24
Table 3-1	Project Proponent Life of the factory.....	3-26
Table 3-2	Adjacent Factories of the Project Site.....	3-26
Table 3-3	Annual production rate	3-34
Table 3-4	List of Annual Raw Materials.....	3-35
Table 3-5	Machinery for Production Line	3-36
Table 3-6	Employment List.....	3-37
Table 3-7	Annual fuel requirements	3-39
Table 3-8	Specification of Boiler.....	3-39
Table 4-1	Summary of Environmental Survey	4-43
Table 4-2	Location of Air Quality Survey Point	4-44
Table 4-3	Air Quality Sampling and Analysis Method.....	4-45
Table 4-4	Ambient Air Quality in Project Area.....	4-45
Table 4-5	Relative humidity and temperature measure at factory	4-46
Table 4-6	Location of Noise Level Survey Point	4-47
Table 4-7	Recommended illumination and limiting glare index based on IES Code, 1968	4-48
Table 4-8	Result of light measurement in TAE HYUN (MYANMAR) INDUSTRY COMPANY LIMITED.....	4-48
Table 4-9	Annual rainfall and temperature	4-56
Table 4-10	Population of Males and Females at Hlaing Thar Yar Township (2019).....	4-59
Table 4-11	Religion in Hlaing Thar Yar Township (2019)	4-59

Environmental Management Plan

Table 4-12 Transportation Route.....	4-60
Table 4-13 List of major school in Hlaing Thar Yar Township	4-60
Table 4-14 Common Diseases in the Hlaing Thar Yar Township.....	4-61
Table 4-15 Lists of Hospital in Hlaing Thar Yar Township	4-62
Table 5-1 Impact assessment parameters and its scale.....	5-64
Table 5-2 Evaluation and Perdition of Significant Impacts and Mitigation Measures on Operation phase	5-66
Table 5-3 Evaluation and Predication of Significant Impacts and Mitigation Measure on Decommissioning Phase.....	5-69
Table 6-1 Mitigation and Monitoring Process in Operation Phase	6-75
Table 6-2 Environmental Monitoring Schedule for Tae Hyun (Myanmar) Industry Company Limited	6-78
Table 6-3 American National Fire Fighting Association (NFFA) Standards	6-81
Table 6-4 Training Plan Used in Tae Hyun (Myanmar) Industry Company Limited.....	6-82
Table 6-5 CSR Plan at Tae Hyun (Myanmar) Industry Company Limited.....	6-84

LIST OF FIGURES

Figure 1-1 Organization Chart of Tae Hyun (Myanmar) Industry Company Limited	1-7
Figure 3-1 Location Map	3-28
Figure 3-2 Adjacent Location Map	3-29
Figure 3-3 Factory Layout Plan (Aerial Photo)	3-30
Figure 3-4 Factory Layout Drawing	3-31
Figure 3-5 Process Flow Diagram	3-32
Figure 3-6 Production Photos	3-33
Figure 3-7 Product Photo and Storage Area	3-34
Figure 3-8 Raw Material Storage	3-35
Figure 3-9 Water Supply System Photo	3-38
Figure 3-10 Electricity and Fuel Facility	3-39
Figure 3-11 Electric Steam Boiler Photo	3-40
Figure 3-12 Firefighting System	3-40
Figure 3-13 Waste Storage & Management Photo	3-42
Figure 3-14 Ventilation System Photo	3-42
Figure 4-1 Air Quality Monitoring Location	4-44
Figure 4-2 Air Quality Monitoring Graph	4-45
Figure 4-3 Air Quality Monitoring Photo	4-46
Figure 4-4 Temperature and Humidity Measure Photo	4-46
Figure 4-5 Noise Level Measurement Photo	4-47
Figure 4-6 Light quality measurement	4-48
Figure 4-7 Geological Map of Yangon Region	4-50
Figure 4-8 Soil Map of Yangon (Source: Land use of Bureau of Yangon)	4-52
Figure 4-9 Climate Summary of Yangon Region	4-54
Figure 4-10 Average Temperature of Yangon Region	4-54
Figure 4-11 Cloud Cover Categories	4-55
Figure 4-12 Average Monthly Rainfall at Yangon Region	4-56

Figure 4-13 Humidity of Yangon	4-57
Figure 4-14 Average Wind Speed in Yangon	4-58
Figure 5-1 Potential Negative Impact Affect from Proposed Project	5-63
Figure 6-1 Environmental Management System	6-72
Figure 6-2 Organization Structure of Environmental Management Plan.....	6-74
Figure 6-3 Grievance Redress Mechanism flow diagram	6-84
Figure 7-1 Announcement Post of Proposed Project at Social Media.....	7-87

LIST OF APPENDICES

APPENDIX A Company Document's Tae Hyun (Myanmar) Industry Company Limited

APPENDIX B Transitional Consultant Registration Certificate

APPENDIX C Monitoring Result

APPENDIX D Fire Safety Training Photo

APPENDIX E Power Point Presentation Slides

Abbreviation

1. CEMP	= 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. EMP	= Environmental Management Plan
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. YRIC	= Yangon Region Investment Committee
15. MOECF	= Ministry of Environmental Conservation and Forestry
16. MONREC	= Ministry of Natural Resources and Environmental Conservation
17. OEMP	= 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

နိဒါန်း

လူတိုင်းသည် သန့်ရှင်းပြီး ကျန်းမာသည့် နေရာတွင်နေထိုင်လိုကြသည်။ ယခုအချိန်တွင် ကမ္ဘာ့မြေ၏အဓိက စိုးရိမ်ပူပန်မှုမှာ ပတ်ဝန်းကျင်ပြောင်းလဲမှုဖြစ်စဉ်များကြောင့်ဖြစ်သည်။ အဘယ်ကြောင့်ဆိုသော် လူသားတို့၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအပေါ် ပေါ်ဆူမှုကြောင့်ဖြစ်သည်။ ထို့ကြောင့် သဘာဝပတ်ဝန်းကျင် ထိခိုက်မှုမဖြစ်စေရေး၊ ရေရှည်စဉ်ဆက်မပြတ် တိုးတက်ကောင်းမွန်ရေးအတွက် စနစ်ကျသော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်ရှိရန်လိုအပ်ပါသည်။ ထို့ကြောင့် Tae Hyun (Myanmar) Industry Company Limited ၏ ထုတ်လုပ်မှုလုပ်ငန်းအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် (EMP) ကို အကောင်အထည်ဖော်ခဲ့ပါသည်။ EMP ၏ အဓိက ရည်ရွယ်ချက်မှာ ညစ်ညမ်းမှုထိန်းသိမ်းရေး၊ စွန့်ပစ်ပစ္စည်းလျှော့ချရေးနှင့် စွန့်ပစ်ပစ္စည်းများကို ပြန်လည်အသုံးပြုရေး အစီအစဉ်များကို အလေးထားဖော်ပြထားပြီး၊ စက်မှုလုပ်ငန်းဆိုင်ရာ တိကျသော ထိန်းချုပ်မှု အစီအမံများအပြင် အခြားအဆိုပြုထားသည့် စက်မှုလုပ်ငန်းသည် အောက်ပါလမ်းညွှန်ချက်များကို လိုက်နာသင့်သည်။

အဆိုပြုလုပ်ငန်းသည် အထည်ချုပ်စက် (ဂျာကင်အမျိုးမျိုးနှင့်ဦးထုပ်အမျိုးမျိုး)ထုတ်လုပ်ခြင်းလုပ်ငန်းအတွက် ရင်းနှီးမြှုပ်နှံသော ကုမ္ပဏီဖြစ်ပါသည်။ ရင်းနှီးမြှုပ်နှံမှုလိုင်စင်ကို ၂၀၁၉ခုနှစ်၊ အောက်တိုဘာလ၊ ၂၉ ရက်နေ့တွင် (အတည်ပြုမိန့်အမှတ် ရကတ-၂၇၇/၂၀၁၉)ဖြင့် ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီမှ ရရှိပြီးဖြစ်ပါသည်။ လုပ်ငန်းလည်ပတ်ရန်အတွက် မြန်မာနိုင်ငံသယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဝန်ကြီးဌာန (MONREC) ၏ အတည်ပြုချက်ရယူရန် လိုအပ်ကြောင်း ကော်မရှင်မှ မှာကြားခဲ့ပါသည်။

ထို့ကြောင့် မြန်မာနိုင်ငံ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂)အရ၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) ပြုလုပ်ရန်လိုအပ်ကြောင်း ၂၀၁၉ ခုနှစ်၊ အောက်တိုဘာလ၊ ၈ ရက်နေ့တွင် (စာအမှတ်၊ ရက-၁/၃/၄ (အီးအိုင်အေ) (၂၂၀၀/၂၀၁၉) ဖြင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန ရန်ကုန်တိုင်းဒေသကြီးမှ သဘောထားမှတ်ချက် ရရှိပြီးဖြစ်ပါသည်။ ထို့ကြောင့် EMP အစီအရင်ခံစာရေးဆွဲရန် တတိယအဖွဲ့အစည်းဖြစ်သော Myanmar Environmental Solutions Company Limited မှ တာဝန်ယူရေးဆွဲခဲ့ပါသည်။

ရင်းနှီးမြှုပ်နှံသူ၏ အချက်အလက်

ရင်းနှီးမြှုပ်နှံသူ အမည်	Daw Nyein Nyein Zaw
ID No. :	12/Ka Ma Ya (N) 047513
နိုင်ငံသား	Myanmar
မှတ်ပုံတင်သွင်းသည့် လိပ်စာ	Room No.25, Building No.1, Pyay Yeik Mon Housing, 8 Quarter, Kamayut, Yangon.

အဆိုပြုထားသော စီမံကိန်း၏ အဓိကလက္ခဏာများ

လုပ်ငန်းအမျိုးအစား	CMP စနစ်ဖြင့် ဂျာကင်အမျိုးမျိုး နှင့် ဦးထုပ်အမျိုးမျိုး ချုပ်လုပ်ခြင်းလုပ်ငန်း
--------------------	--

Environmental Management Plan

ရင်းနှီးမြှုပ်နှံမှုအမျိုးအစား	မြန်မာနိုင်ငံသားရင်းနှီးမြှုပ်နှံမှု
မြေအမျိုးအစား	စက်မှုဇုန်မြေ
အကျယ်အဝန်း	၀.၉၇၇ ဧက (၃၉၅၃.၇၇၈၇ စတုရန်းမီတာ)
အဆောက်အအုံ	(၈၀ ပေ × ၁၈၀ ပေ) စက်ရုံအဆောက်အအုံ (၈၀ ပေ × ၂၀ ပေ) နှစ်ထပ်ရုံးခန်းအဆောက်အအုံ (၁၀ ပေ × ၄၀ ပေ) နှစ်ထပ်ဝန်ထမ်းအဆောက်အအုံ (၁၀ ပေ × ၁၀ ပေ) နှစ်ထပ်လုံခြုံရေးအဆောက်အအုံ
မြေဌာန	နှစ် ၂၅
တည်ဆောက်ရေးကာလ	၁ နှစ်
လိပ်စာ	မြေကွက်အမှတ် (၁၃၉)၊ မြေတိုင်းရပ်ကွက်အမှတ် အပိုင်း (၄)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး
ဆက်သွယ်ရန်	ဒေါ်ငြိမ်းငြိမ်းဇော် ၀၉-၄၂၀၂၀၅၆၄၅

ဥပဒေနှင့် မူဝါဒဆိုင်ရာ အချက်အလက်များ

ဥပဒေနှင့် နည်းဥပဒေ အခန်းတွင် MONREC မှ ထုတ်ပြန်ထားသည့် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်းများ၊ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များအပြင် စက်ရုံနှင့်ဆက်စပ်သက်ဆိုင်နေပြီး လိုက်နာရမည့် ဥပဒေနှင့် နည်းဥပဒေများ၊ ဒေသတွင်း သို့မဟုတ် အပြည်ပြည်ဆိုင်ရာ သဘာဝပတ်ဝန်းကျင်နှင့် လူမှုပတ်ဝန်းကျင်ဆိုင်ရာ မူဝါဒများ၊ ဆက်စပ်နေသည့် နိုင်ငံတကာသဘောတူချက်များကို အကျဉ်းချုပ်ရေးသားဖော်ပြထားပါသည်။

1. Constitution 2008
2. Environmental Conservation Law, 30 March 2012
3. Environmental Conservation Rules, 2014
4. Environmental Impact Assessment Procedure (December 2015)
5. National Environmental Quality (Emission) Guideline (NEQG) (December 2015)
6. National Environmental Policy of Myanmar (2019)
7. Foreign Investment Law, 2012
8. Foreign Investment Rule, 2013
9. Myanmar Investment Rule, 2017
10. Payment of Wages Law (2016)
11. Yangon City Development Committee Law (2018)
12. The Amended Law for Factories Act, 1951 (2016)

13. The Private Industrial Enterprise Law, 1990
14. The Export and Import Law (2012)
15. The Prevention of Hazard from Chemical and Related Substances Law, 2013
16. Underground Water Act
17. Myanmar Fire Brigade Law (2015)
18. The Electricity Law (2014)
19. Boiler Law (2015)
20. The Social Security Law (2012)
21. Labor Dispute Settlement Law (28 March 2012 replacing 1929 version)
22. The Employment and Skill Development (2013)
23. The Worker's Compensation Act, 1923
24. The Payment of Wages Act, 1936
25. The Leave and Holidays Act, (1951, partially revised in 2014)
26. The Minimum Wage Law (2013)
27. Public Health Law (1972)
28. Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)
29. Occupational Safety and Health Law (2019)
30. The Law on Standardization
31. လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သောဝတ္ထုပစ္စည်းများဆိုင်ရာဥပဒေ (၂၀၁၈)
32. The Motor Vehicles Law (2015)
33. The Conservation of Water Resources and River Law (2006)
34. The Commercial Tax Law (1990) Amended 2014

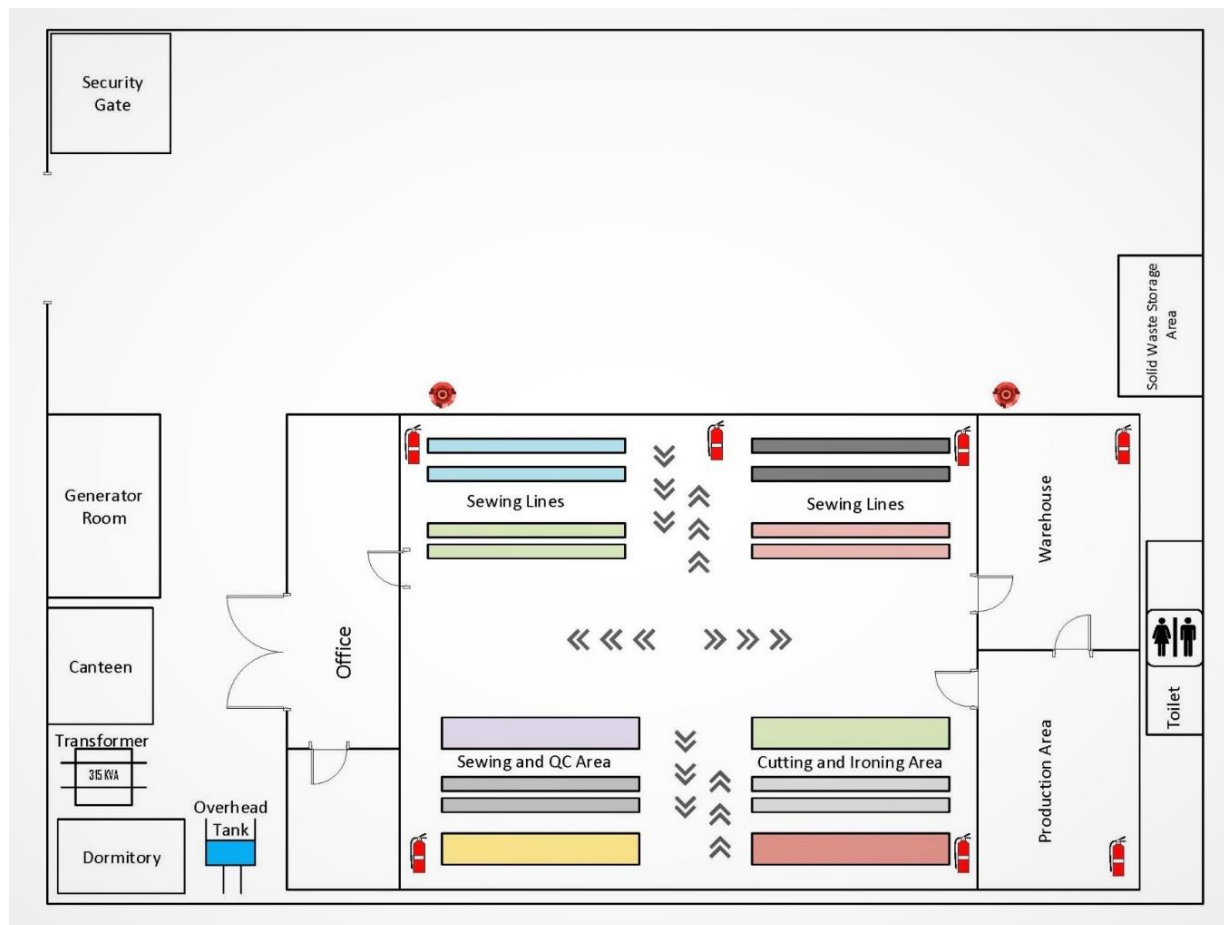
လုပ်ငန်းအကြောင်းအရာဖော်ပြချက်

Tae Hyun (Myanmar) Industry Company Limited စက်ရုံသည် မြေကွက်အမှတ် (၁၃၉)၊ မြေတိုင်းရပ်ကွက် အမှတ် အပိုင်း (၄)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး တွင်တည်ရှိပြီး မြေဧရိယာစုစုပေါင်း ၀.၉၇၇ ဧက (၃၉၅၃.၇၇၈၇ စတုရန်းမီတာ) ကျယ်ဝန်းပါသည်။

Environmental Management Plan



အဆိုပြုလုပ်ငန်း၏ တည်နေရာပြပုံ

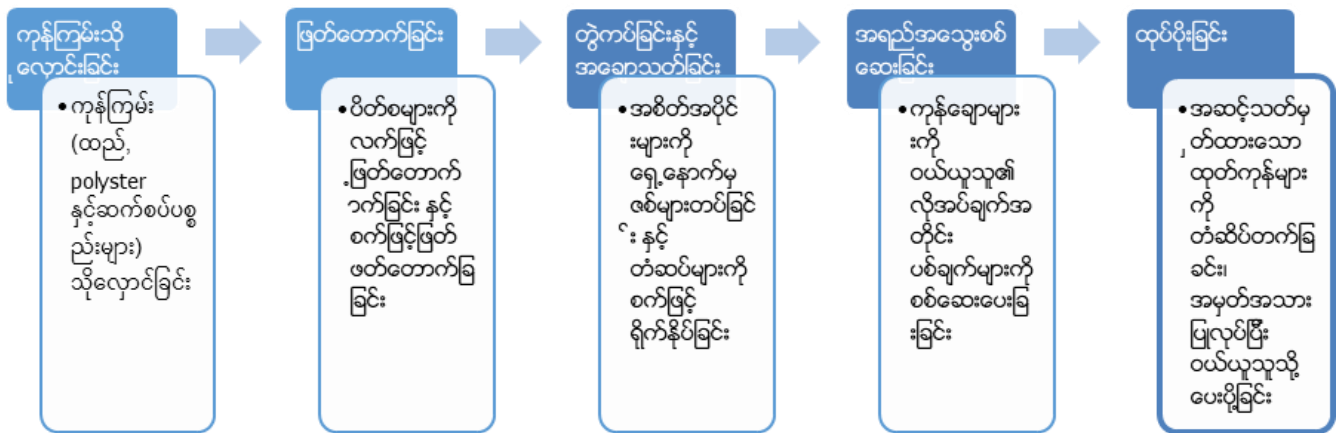


စက်ရုံတည်ဆောက်ပုံပြပုံ

Environmental Management Plan

အဆိုပြုလုပ်ငန်း၏ အဓိကကုန်ကြမ်းမှာ fabric, interlining, zipper, thread, label, sticker, button etc ဖြစ်ပြီး တရုတ်နိုင်ငံမှ တင်သွင်းသွားမည်ဖြစ်သည်။

အဆိုပြုလုပ်ငန်းမှ CMP စနစ်ဖြင့် ဂျာကင်အမျိုးမျိုးနှင့် ဦးထုပ်အမျိုးမျိုးထုတ်လုပ်၍ နိုင်ငံခြားသို့တင်ပို့သွားမည်ဖြစ်သည်။



ထုတ်လုပ်မှုလုပ်ငန်းစဉ်





ကုန်ချောစာတံပုံ

အနီးပတ်ဝန်းကျင်အခြေအနေဆိုင်ရာ ဖော်ပြချက်

လက်ရှိပတ်ဝန်းကျင်၏ ပတ်ဝန်းကျင်ဆိုင်ရာအချက်အလက်၊ ပတ်ဝန်းကျင်အရည်အသွေး တိုင်းတာခြင်းများနှင့် သက်ရောက်မှုများကို ၂၀၂၀ပြည့်နှစ်၊ ဇူလိုင်လ ၁၇ ရက်နေ့တွင် ပြုလုပ်ခဲ့ပါသည်။ ထို့အပြင် စက်ရုံတည်နေရာနှင့် သက်ဆိုင်သည့် အချက်အလက်များဖြစ်သော လူမှုစီးပွားအခြေအနေ၊ ရူပပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များ၊ ဇီဝပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များ၊ ရာသီဥတုဆိုင်ရာ အချက်အလက်များ အစရှိသည်များကို ရန်ကုန်တိုင်းဒေသကြီး၊ လှိုင်သာယာမြို့နယ်မှ တရားဝင်ပြဌာန်းထားသော မြို့နယ်ဆိုင်ရာအချက်အလက်များမှ ကိုးကားဖော်ပြထားပါသည်။

အဆိုပြုလုပ်ငန်း၏စစ်တမ်းကောက်ယူမှု

အမျိုးအစား	ရလဒ်
ရာသီဥတုအခြေအနေ	
အပူချိန်	၃၆.၇ °C
စိုထိုင်းဆ	၈၄.၉ %
ဆူညံသံ	
ထုတ်လုပ်မှုဧရိယာအတွင်း	၇၃.၆၄ dBA
လေထုအရည်အသွေး	
PM 10	၁၈.၁ µg/m ³
PM 2.5	၁၂.၂ µg/m ³
CO	၁.၈၅၅ µg/m ³
NO ₂	၉၂.၇ µg/m ³
SO ₂	၃၆၅.၈ µg/m ³

ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်းနှင့် လျော့ချရေးနည်းလမ်းများ

အဆိုပြု စီမံကိန်း၏ အဓိကဖြစ်ပေါ်စေနိုင်သော ပတ်ဝန်းကျင်ထိခိုက်မှုကို အခြေခံစစ်တမ်းများ ပေါ်မူတည်၍ ယေဘုယျ နည်းလမ်းများအတိုင်း လျော့ချမှုများ ပြုလုပ်သွားပါမည်။ ပတ်ဝန်းကျင် ထိခိုက်မှုကို လေ့လာဆန်းစစ်ရာတွင် စီမံကိန်းကာလအတွင်း ထိခိုက်မှု တစ်ခုချင်းစီ၏ ပမာဏ၊ ကြာမြင့်ချိန်၊ ကျယ်ပြန့်မှုနှင့် ဖြစ်နိုင်ချေတို့အား ဖော်ပြထားပါသည်။

အကဲဖြတ်ခြင်း	အတိုင်းအတာ				
	၁	၂	၃	၄	၅
ပမာဏ	မလုံလောက်သော	အနည်းငယ်နှင့် လုပ်ငန်းခွင် ပြောင်းလဲမှု ဖြစ်စေနိုင်သော	အသင့်အတင့်နှင့် အနည်းငယ် လုပ်ငန်းခွင် ပြောင်းလဲမှု ဖြစ်စေနိုင်သော	မြင့်မားသောနှင့် သိသာစွာလုပ်ငန်းခွင်ပြောင်းလဲမှု ဖြစ်စေနိုင်သော	အလွန်မြင့်မားသောနှင့် အမြဲတမ်းလုပ်ငန်းခွင် ပြောင်းလဲမှု ဖြစ်စေနိုင်သော
အချိန်	၀-၁ နှစ်	၂-၅ နှစ်	၆-၁၅ နှစ်	လုပ်ငန်း လည်ပတ်စဉ် ကာလ တစ်လျှောက်	လုပ်ငန်းပိတ်သိမ်းခြင်းကာလအထိ
ကျယ်ပြန့်မှု	လုပ်ငန်းခွင်အတွင်း	ဒေသအတွင်း	မြို့နယ်အတွင်း	နိုင်ငံအတွင်း	နိုင်ငံတကာအတွင်း
ဖြစ်နိုင်ချေ	လုံးဝ မဖြစ်နိုင်သော	မဖြစ်နိုင်သော	ဖြစ်နိုင်သော	ဖြစ်နိုင်ချေမြင့်သော	အတိအကျ

$$\text{သတ်မှတ်ချက်} = (\text{ပမာဏ} + \text{အချိန်} + \text{ကျယ်ပြန့်မှု}) * \text{ဖြစ်နိုင်ချေ}$$

ပတ်ဝန်းကျင်ထိခိုက်မှုကိုအောက်ပါအတိုင်း ခွဲခြားနိုင်သည်။

သတ်မှတ်ချက်	ထိခိုက်မှုအဆင့်
<၁၅	အလွန်နိမ့်
၁၅ - ၂၉	နိမ့်
၃၀ - ၄၄	အသင့်အတင့်
၄၅ - ၅၉	မြင့်
၆၀	အလွန်မြင့်

ထိခိုက်မှုသတ်မှတ်ချက် ကြိုတင်ခန့်မှန်းခြင်းနှင့် လျော့ချရေးနည်းလမ်းများ

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့်	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
တည်ဆောက်ရေးကာလ။ လုပ်ငန်းလည်ပတ်နေချိန်ဖြစ်သောကြောင့် ဤကာလကိုထည့်သွင်း မစဉ်းစားတော့ပါ။			
လုပ်ငန်းလည်ပတ်ခြင်းကာလ			
လေထုညစ်ညမ်းမှု	သယ်ယူပို့ဆောင်ရေးသုံး မော်တော်ယာဉ်တို့ကြောင့် ဖုန်မှုနှင့် ဖန်လုံအိမ်ခတ်ငွေ့ထွက်ခြင်း လုပ်ငန်းခွင်အတွင်းဖုန်မှုထွက်ခြင်း မီးဖိုနှင့် ရေနွေးငွေ့ဘွိုင်လာတို့မှ မီးခိုးထွက်ခြင်း အရေးပေါ်သုံးမီးစက်မှာ စွန့်ထုတ်အမိုးအငွေ့ ထွက်ခြင်း	အသင့်အတင့်	ဘွိုင်လာနှင့်မီးစက် တို့တွင် မီးခိုးခေါင်းတိုင် တပ်ဆင်ခြင်းဖြင့် အမိုးအ ငွေ့ကြောင့် ပတ်ဝန်းကျင် ထိခိုက်မှုကို လျော့ချခြင်း၊ စက်ရုံအတွင်းနှင့် အနီး အနားတွင် သစ်ပင်ပန်းမံ စိုက်ပျိုးခြင်းဖြင့် carbon ထွက်ရှိမှုကို လျော့ချပေးခြင်း၊ NOx ထွက်ရှိမှုနည်းသော နည်းပညာဖြင့် စက်ပစ္စည်း များသုံးခြင်း၊ စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း။
ရေ	မိလ္လာစွန့်ထုတ်ရေ စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှ ဆီယိုဖိတ်ခြင်း	အလွန်နိမ့်	လက်ရှိရေဆိုးစွန့်ပစ်မှုပုံစံဖြစ်သော မိလ္လာစနစ်ကို ပုံမှန်စစ်ဆေးပေးခြင်း၊ မိလ္လာကန်နှင့် မိလ္လာ စနစ်ကို လူဦးရေနှင့် သင့်တင့်သည့် ပမာဏ ရှိရန် စီစဉ်ထားခြင်း၊ ပုံမှန်သန့်ရှင်းရေးပြုလုပ်ပေးခြင်း၊ စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း။
မြေဆီလွှာညစ်ညမ်းမှု	မတော်တဆ စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှ ဆီယိုဖိတ်ခြင်း	အလွန်နိမ့်	စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင် ထိန်းသိမ်းပေးခြင်း။ မတော်တဆမှု မဖြစ်စေရန် ထိန်းသိမ်းခြင်း။
ဆူညံသံ	ဘွိုင်လာ၊ မီးစက်၊ လေမှုတ်စက် နှင့် မော်တော် ယာဉ် အသုံးပြု မှုကြောင့် ပတ်ဝန်းကျင် ဆူညံမှု	အလွန်နိမ့်	ဆူညံသံထွက်သောနေရာများကို အကာအကွယ် ဖြင့်ထားရှိခြင်း စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ပေးခြင်း
ကုန်းနေရေနေသတ္တ ဝါများနှင့် သစ်ပင်ပန်းပင်များ	Operation of proposed project	အလွန်နိမ့်	ထိခိုက်မှုလျော့ချရန်မလိုအပ်ပါ။
မီးဘေးအန္တရာယ်	ကုန်ကြမ်းသိုလှောင်မှု နှင့် လျှပ်စစ်သုံးစွဲ ပေါ့လျော့မှု	အသင့်အတင့်	ကုန်ကြမ်းများအား သီးသန့်ထားရှိခြင်း လျှပ်စစ်သုံးစွဲမှုများအား စနစ်တကျ အသုံးပြုစေခြင်း
လုပ်ငန်းခွင်ဘေးအန္တ	စက်ပစ္စည်းများလည်ပတ်မှုကြောင့်	အသင့်အတင့်	အလုပ်သမားများ၏

Environmental Management Plan

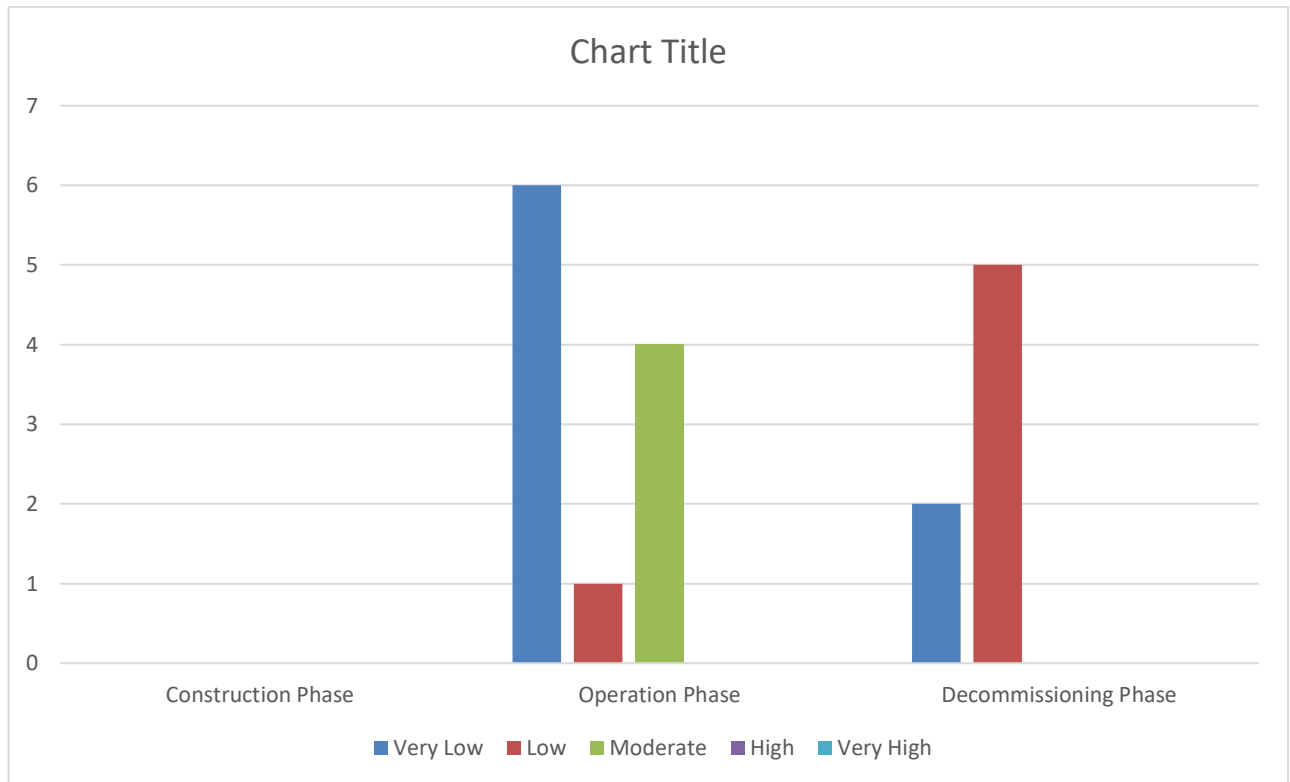
ရာယ်ကင်းရှင်းရေး	မတော်တဆထိခိုက်မှုများ သယ်ယူပို့ဆောင်ခြင်း၊ ကုန်ကြမ်းဖြတ်တောက်ခြင်းနှင့် ထုပ်ပိုးခြင်းလုပ်ငန်းများ အပူအအေးပေးစက်၏ မတော်တဆထိခိုက်မှုများ		အရေးပေါ်အခြေအနေများအတွက် ရှေးဦးသူနာပြုသင်တန်း၊ ဘေးကင်းရေးသင်တန်း၊ မီးသတ်သင်တန်း (သို့) စက်ယန္တရားများကိုင်တွယ်ခြင်းအတွက် အခြားမရှိမဖြစ်လိုအပ်သော သင်တန်းများကို ပံ့ပိုးပေးခြင်း၊ လေ့လာတွေ့ရှိရသော အလင်းပြင်းအားတန်ဖိုးများအရ၊ အလုပ်သမားများအတွက် ဘေးကင်းလုံခြုံစွာ အလုပ်လုပ်နိုင်စေရန်နှင့် မြင်ကွင်းဆိုင်ရာပြဿနာများကို လျော့ချရန်လုံလောက်သော အလင်းရောင်ပေးခြင်း တကိုယ်ရည်သုံးကာကွယ်ရေးပစ္စည်းများကို သက်ဆိုင်ရာဌာနတစ်ခုချင်းအလိုက် ပံ့ပိုးပေးခြင်း လျှပ်စစ်ရှော့အန္တရာယ်အတွက် လျှပ်စစ်ထိန်းသိမ်းစောင့်ရှောက်ရေး ဝန်ထမ်းအား ပုံမှန်စစ်ဆေးစေခြင်း၊ ကြိုတင်ကာကွယ်မှုများပြုလုပ်စေခြင်း။
ကျန်းမာရေး	မီးစက်အသုံးပြုမှုကြောင့် ဆူညံသံများထွက်ပေါ်ခြင်း	အလွန်နိမ့်	စက်ရုံ၏ ရေနုတ်မြောင်းစနစ်များအား စီမံခန့်ခွဲခြင်း အလုပ်သမားများအတွက် အမြင့်ဆုံးခွင့်ပြုသော ဆူညံသံအဆင့်မှာ တစ်ရက်လျှင် ၈ နာရီအတွက် 90 dBA ဖြစ်သည်။ ထို့ကြောင့် ဆူညံသံမြင့်မားသောနေရာများတွင် ဝန်ထမ်းများအား နားကြပ်များတပ်ဆင်၍ အလုပ်လုပ်စေခြင်း
စွန့်ပစ်အမှိုက်	ထုတ်လုပ်ရာတွင် ကျန်ရှိသော ပိတ်စ အပိုင်းအစများ။ မီးဖိုချောင်နှင့် ရုံးတွင်းစွန့်ပစ်ပစ္စည်းများ	အသင့်အတင့်	စွန့်ပစ်အမှိုက်များအား ပြန်လည်သုံးစွဲရန် နှင့် စွန့်ပစ်ရန် အဖြစ်သတ်မှတ်ပြီး သီးခြားစွန့်ပစ်စေခြင်း
စွန့်ပစ်အရည်	နေအိမ်၊ စားသောက်ဆောင် တို့မှစွန့်ထုတ်ရေး၊ မိလ္လာကန်စနစ်	နိမ့်	စွန့်ပစ်အမှိုက်များအား ပြန်လည်သုံးစွဲရန် နှင့် စွန့်ပစ်ရန် အဖြစ်သတ်မှတ်ပြီး သီးခြားစွန့်ပစ်စေခြင်း
အန္တရာယ်ရှိအမှိုက်	စက်များမှ ဆီယိုစိမ့်မှုများ၊ မော်တော်ယာဉ်များပြုပြင်ထိန်းသိမ်း မှုကထွက်ရှိသည့်အမှိုက်များ	အလွန်နိမ့်	စက်သုံးဆီများအားစနစ်တကျ အသုံးပြုစေခြင်း၊ စနစ်တကျသိုလှောင်ခြင်း နှင့် အန္တရာယ်ရှိပစ္စည်းများအား စနစ်တကျထားရှိစေခြင်း

Environmental Management Plan

လူမှုစီးပွားဘဝ	ဒေသခံပြည်သူများအတွက် အလုပ်အကိုင်အခွင့်အလမ်းများ ရရှိစေခြင်း		
လုပ်ငန်းပိတ်သိမ်းခြင်းကာလ			
လေထုညစ်ညမ်းမှု	အဆောက်အဦများ ဖြိုချမှုများ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ	နိမ့်	NOx ထွက်ရှိမှုနည်းသော နည်းပညာဖြင့် စက်ပစ္စည်းများသုံးခြင်း၊ စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း။
ရေ	ဖြိုချပစ္စည်းများနှင့် မိလ္လာဖျက်ဆီးမှုများ	နိမ့်	ပုံမှန်သန့်ရှင်းရေးပြုလုပ်ပေးခြင်း။ စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း။
မြေဆီလွှာညစ်ညမ်းမှု	အဆောက်အဦနှင့် ဆက်စပ်ပစ္စည်းများ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ	နိမ့်	မတော်တဆမှု မဖြစ်စေရန် ထိန်းသိမ်းခြင်း။
ဆူညံသံ	ဖြိုချဖျက်စီးမှုနှင့် မော်တော်ယာဉ်အသုံးပြုမှုကြောင့် ပတ်ဝန်းကျင် ဆူညံမှု	နိမ့်	စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ပေးခြင်း လုပ်သားများအား နားကျပ်ကိရိယာများထောက်ပံ့ပေးခြင်း
အမှိုက်စွန့်ပစ်မှု	အဆောက်အဦများ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ	အလွန်နိမ့်	စွန့်ပစ်အမှိုက်များအား ပြန်လည်သုံးစွဲရန် နှင့် စွန့်ပစ်ရန် အဖြစ်သတ်မှတ်ပီး သီးခြားစွန့်ပစ်စေခြင်း
အန္တရာယ်ရှိအမှိုက်	စက်များမှ ဆီယိုစိမ့်မှုများ၊ မော်တော်ယာဉ်များပြုပြင်ထိန်းသိမ်းမှု က ထွက်ရှိသည့်အမှိုက်များ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ	အလွန်နိမ့်	စက်သုံးဆီများအားစနစ်တကျ အသုံးပြုစေခြင်း၊ စနစ်တကျသိုလှောင်ခြင်း နှင့် အန္တရာယ်ရှိပစ္စည်းများအား စနစ်တကျထားရှိစေခြင်း
မတော်တဆ ထိခိုက်မှုများ	အဆောက်အဦများ ဖြိုချမှုများ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ	နိမ့်	မတော်တဆမှု မဖြစ်စေရန် ထိန်းသိမ်းခြင်း။
လူမှုစီးပွားဘဝ	ဒေသခံပြည်သူများအတွက်အလုပ်အ ကိုင် ခေတ္တရရှိခြင်း		

လုပ်ငန်းလည်ပတ်စဉ်ကာလတွင် သတ်မှတ်ချက်များမှာ အသင့်အတင့် သတ်မှတ်ချက် ၄ခု (လေအရည်အသွေး၊ မီးဘေးအန္တရာယ်၊ လုပ်ငန်းခွင်ဘေးအန္တရာယ်၊ စွန့်ပစ်အမှိုက်)၊ နိမ့် သတ်မှတ်ချက် ၁ခု (စွန့်ပစ်အရည်) နှင့် အလွန်နိမ့်သတ်မှတ်ချက် ၆ခု (ရေထုညစ်ညမ်းမှု၊ မြေထုညစ်ညမ်းမှု၊ ဆူညံသံ၊ ဂေဟဗေဒ၊ ကျန်းမာရေးနှင့် အန္တရာယ်ရှိစွန့်ပစ်အမှိုက်)၊ များနှင့် လုပ်ငန်းပိတ်သိမ်းစဉ်ကာလတွင် သတ်မှတ်ချက်များမှာ အလွန်နိမ့် ၂ခု (စွန့်ပစ်အမှိုက်နှင့် အန္တရာယ်ရှိစွန့်ပစ်အမှိုက်) နှင့် နိမ့်သတ်မှတ်ချက် ၅ခု (လေထုအရည်အသွေး၊ ရေထုညစ်ညမ်းမှု၊

မြေဆီလွှာညစ်ညမ်းမှု၊ ဆူညံသံနှင့် လုပ်ငန်းခွင်ဘေးအန္တရာယ်) တို့တွေ့ရှိရပြီး ၎င်းအား ပုံနှင့်တကွ နှိုင်းယှဉ်ဖော်ပြထားပါသည်။



အဆိုပြုလုပ်ငန်း၏ ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများ နှိုင်းယှဉ်ပြပုံ

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု ဆောင်ရွက်ချက်

စီမံကိန်းဖော်ဆောင်သည့် အချိန်အတွင်း ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများ၊ လျော့ချရေး နည်းလမ်းများ၊ အစီအစဉ်များ၊ တိုင်းတာမှုများ စသည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်များကို လုပ်ဆောင်ရပါသည်။ Tae Hyun (Myanmar) Industry Company Limited မှ စက်ရုံတွင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် အဖွဲ့အစည်းဖွဲ့စည်းခြင်း၊ ပုံမှန်ဆန်းစစ်လေ့လာခြင်းများ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။ ပတ်ဝန်းကျင် လေထုအရည်အသွေး၊ မိလ္လာစနစ်၊ စွန့်ပစ်အပိုင်အခဲ စွန့်ပစ်မှုများကို စက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အဖွဲ့အစည်းမှ ဆန်းစစ်သွားမည်ဖြစ်ပါသည်။ အဆိုပြုစီမံကိန်းမှ လူထုအကျိုးပြုလုပ်ငန်းများ နှင့် အရေးပေါ်ဆောင်ရွက်ချက်များ၊ ဒေသဆိုင်ရာ အကျိုးပြုလုပ်ငန်းများကို လုပ်ဆောင်သွားမည်ဖြစ်ပါသည်။

ပတ်ဝန်းကျင်ဆိုင်ရာစီမံခန့်ခွဲမှု ဆောင်ရွက်မှုအတွက်လိုအပ်သည့် အောက်ပါပတ်ဝန်းကျင်ဆိုင်ရာ ပြဿနာ များမှာ-

၁။ လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်ဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်

- စက်ရုံအတွင်း ကာဗွန်နှင့် လေထုညစ်ညမ်းမှု လျော့ချရန် သစ်ပင်ပန်းမံများ စိုက်ပျိုးထားရှိခြင်း
- စက်ရုံအတွင်း မည်သည့်စွန့်ပစ်ပစ္စည်းကိုမှ မီးရှို့ဖျက်စီးခြင်းအား မပြုလုပ်စေခြင်း

- လုပ်ငန်းသုံးမော်တော်ယာဉ်များ၊ မီးစက်များနှင့် လုပ်ငန်းသုံးစက်ပစ္စည်းများကို ပုံမှန်စစ်ဆေးပေးခြင်း
- မီးခိုးထွက်ရှိမှုအတွက် ပတ်ဝန်းကျင်ထိခိုက်မှုလျော့ချရန် မီးခိုးခေါင်းတိုင်များ အသုံးပြုခြင်း
- လုပ်ငန်းသုံးမော်တော်ယာဉ်များ၊ ကွန်ပရက်ဆာနှင့် မီးစက်များအား သေချာစောင့်ထိန်းခြင်း

၂။ ဆူညံသံ စီမံခန့်ခွဲမှုအစီအစဉ်

- ဆူညံသံလျော့ချရန်အတွက် မီးစက်များအား သီးခြားအသံလုံအခန်းများတည်ဆောက်စေခြင်း
- လုပ်ငန်းသုံးမော်တော်ယာဉ်များအား သတ်မှတ်အရှိန်ထက်ကျော်လွန်၍ မောင်းနှင်ခြင်းမပြုစေခြင်း
- လုပ်ငန်းခွင်အတွင်း တကိုယ်ရည်သုံး ကာကွယ်ရေးပစ္စည်းများ ထောက်ပံ့ပေးခြင်း
- ဝန်ထမ်းများအား သင့်လျော်သော သင်တန်းများ ပို့ချပေးပြီး ဆူညံသောနေရာများတွင် PPE များဝတ်ဆင်စေခြင်း

၃။ မီးဘေးအန္တရာယ် စီမံခန့်ခွဲမှုအစီအစဉ်

- စက်ရုံနံရံများတွင် မီးသတ်ဆေးဘူးများ၊ မီးသတ်ပိုက်ဘီးများနှင့် မီးသတ်ရေပိုက်များ ထားရှိပေးရမည်
- လူအများမြင်သာသည့်နေရာများတွင် အရေးပေါ်ထွက်ပေါက်နှင့် စုရပ်နေရာတို့ကို ညွှန်ပြထားရှိခြင်း
- မီးငြိမ်းသတ်ကရိယာများအား ပုံမှန်စစ်ဆေးပေးခြင်း၊ ရေလှောင်ကန်အား ပုံမှန်စစ်ဆေးခြင်း
- စက်ရုံအတွင်း မီးဘေးအန္တရာယ် အချက်ပြကရိယာများ ထားရှိခြင်း
- အရေးပေါ်ထွက်ပေါက်၊ အဓိကဝင်ပေါက် အစရှိသည်တို့အား မညှိသည့်စက်ကရိယာပစ္စည်းများဖြင့် ပိတ်ပင်ထားမှုမရှိစေခြင်း

၄။ လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေးစီမံခန့်ခွဲမှုအစီအစဉ်

- ရှေးဦးသူနာပြုသင်တန်း၊ဘေးကင်းရေးသင်တန်း၊ မီးငြိမ်းသတ်လေ့ကျင့်ရေး သို့မဟုတ် အလုပ်သမားများ၏ အရေးပေါ်အခြေအနေများအတွက် စက်ပစ္စည်းကိုင်တွယ်ခြင်းအတွက် အခြားမရှိမဖြစ်လိုအပ်သော သင်တန်းများကို ပံ့ပိုးပေးခြင်း
- လေ့လာတွေ့ရှိရသော အလင်းပြင်းအားတန်ဖိုးများအရ အလုပ်သမားများအတွက် ဘေးကင်းလုံခြုံစွာ အလုပ်လုပ်နိုင်စေရန်နှင့် မြင်ကွင်းပြဿနာများကိုလျော့ချရန် လုံလောက်သော အလင်းရောင်ပေးခြင်း
- တကိုယ်ရည်သုံးကာကွယ်ရေးပစ္စည်းများကို သက်ဆိုင်ရာဌာနတစ်ခုချင်းအလိုက် ပံ့ပိုးပေးခြင်း
- လျှပ်စစ်ရှော့အန္တရာယ်အတွက် လျှပ်စစ်ထိန်းသိမ်းစောင့်ရှောက်ရေး ဝန်ထမ်းအား ပုံမှန်စစ်ဆေးစေခြင်း၊ ကြိုတင်ကာကွယ်မှုများပြုလုပ်စေခြင်း

- စက်ရုံရေနုတ်မြောင်းများအား စီမံခန့်ခွဲခြင်း
- တစ်နေ့ အများဆုံးခံနိုင်သည့် ဆူညံသံမှာ နာရီအတွက် 90 dBA ဖြစ်ပြီး ဆူညံသံမြင့်မားသောနေရာများတွင် နားအကာအကွယ်ကရိယာများ ပေးအပ်တပ်ဆင်စေခြင်း

၅။ စွန့်ပစ်အပိုင်အခဲ စီမံခန့်ခွဲမှုအစီအစဉ်

- အဆောက်အဦးတစ်ခုချင်းအလိုက် အမှိုက်ပုံးများထားရှိခြင်း
- စွန့်ပစ်ပစ္စည်းအမျိုးအစားအလိုက် ခွဲခြားစွန့်ပစ်စေခြင်း
- သက်ဆိုင်ရာအမှိုက်စွန့်ပစ်ဌာနများသို့စွန့်ပစ်စေခြင်း

၆။ စွန့်ပစ်အရည်စီမံခန့်ခွဲမှုအစီအစဉ်

- ဆီလောင်ကန်များ၊ မိလ္လာကန်များနှင့် အမှိုက်စွန့်ပစ်သည့်နေရာများအား ပုံမှန်စစ်ဆေးစေခြင်း

၇။ အန္တရာယ်ရှိစွန့်ပစ်အမှိုက်စီမံခန့်ခွဲမှုအစီအစဉ်

- အန္တရာယ်ရှိသော စွန့်ပစ်ပစ္စည်းများ သိုလှောင်ရာတွင် စနစ်တကျ စစ်ဆေးခြင်းနှင့် ထိန်းသိမ်းခြင်း
- ဓာတုပစ္စည်းများနှင့် အန္တရာယ်ရှိအမှိုက်များအား ကွန်တိန်နာများဖြင့် ထိန်းသိမ်း၍ စွန့်ပစ်စေခြင်း
- ဓာတုပစ္စည်းအသုံးပြုပြီး ကွန်တိန်နာများအား ပြန်လည်အသုံးပြုစေခြင်း
- လိုင်စင်ရစွန့်ပစ်သူများထံမှနှင့် သက်ဆိုင်ရာအစိုးရဌာနများသို့ ချိတ်ဆက်၍စွန့်ပစ်စေခြင်း

၈။ စွမ်းအင်စီမံခန့်ခွဲမှုအစီအစဉ်

- အပူအအေးထိန်းညှိပေးသည့် ကရိယာများတပ်ဆင်စေခြင်း
- စွမ်းအင်လျှော့ချသည့် မီးလုံး၊ မီးချောင်းများတပ်ဆင်စေခြင်း
- စွမ်းအင်လျှော့ချသည့်ကရိယာများ တပ်ဆင်ခြင်း
- အသုံးမပြုသည့်အချိန်တွင် စက်ပစ္စည်းများအား ပိတ်ထားခြင်း

၉။ အရေးပေါ်နှင့် သဘာဝဘေးအန္တရာယ်စီမံခန့်ခွဲမှုအစီအစဉ်

- မီး၊ မြေငလျင်၊ ရေကြီးမှုနှင့် မုန်တိုင်းကဲ့သို့သော သဘာဝဘေးအန္တရာယ်များကို သင့်လျော်သော စီမံခန့်ခွဲမှုများပြုလုပ်ခြင်း
- မီးသတ်ပစ္စည်းများနှင့် မီးသတ်ရေပိုက်များကို စက်ရုံဌာနအသီးသီးတွင် ထားရှိခြင်းနှင့် စစ်ဆေးခြင်း
- ဝန်ထမ်းများနှင့် ပူးပေါင်းဆောင်ရွက်ခြင်း
- လျှပ်စစ်ရှောင်ကြဉ်ခြင်းနှင့် ပတ်သက်၍ ဝန်ထမ်းများအား အသိပညာပေးခြင်း
- မီးငြိမ်းသတ်ခြင်းများကို ပုံမှန်လုပ်ဆောင်ခြင်း

- ငလျင်လှုပ်တုတ်အခါ၊ စားပွဲခုံအောက်များတွင် မနေဖို့ လုံခြုံသည့်နေရာတွင်သာနေရန်၊ အပြင်မထွက်ခြင်း၊ အပြင်တွင်လုပ်ကိုင်ရသည့် လုပ်သားများမှာ သစ်ပင်၊ အဆောက်အဦများကို သတိထားရှိရန်နှင့် သက်ဆိုင်ရာလုံခြုံရေးသင်တန်းများပို့ချခြင်း
- မုန်တိုင်းတိုက်ခြင်း၊ ရေကြီးခြင်း၊ မြေပြိုခြင်းတို့ကြောင့် မြွေကဲ့သို့သော အခြားအန္တရာယ်ရှိတိရစ္ဆာန်များအန္တရာယ်များကို သတိပေးခြင်း
- ရှေးဦးသူနာပြုခြင်းကဲ့သို့သော ကျန်းမာရေးဆိုင်ရာအဖွဲ့အစည်းများ ပြင်ဆင်ထားရှိခြင်း
- နီးစပ်ရာ ဆေးရုံ၊ ဆေးခန်း၊ ရဲစခန်း၊ မီးသတ်ဌာနတို့၏ ဆက်သွယ်နိုင်မည့် ဖုန်းနံပါတ်များအား လူအများမြင်သာသည့် နေရာများတွင် ထားရှိခြင်း
- မီးသတ်အဖွဲ့၊ ကယ်ဆယ်ရေးအဖွဲ့ နှင့် လုံခြုံရေးဟူသော အဖွဲ့များ ထားရှိ၍ လစဉ် လုံခြုံရေးများအတွက် အစီအစဉ်များပြုလုပ် စီမံခန့်ခွဲခြင်း
- ဘေးအန္တရာယ်ဆိုင်ရာ သင်တန်းများအား သေချာပြုလုပ်စေခြင်း

၁၀။ ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုခြင်းနှင့် အစီရင်ခံခြင်း

၁၁။ စွမ်းအင်မြှင့်တင်ခြင်းနှင့် လေ့ကျင့်ရေးအစီအစဉ်

၁၂။ လူမှုအကျိုးပြုလုပ်ငန်းများ အစီအစဉ်

အဆိုပြုစီမံကိန်းသည် ရရှိလာသော အကျိုးအမြတ်၏ ၂% ကို လူထုအကျိုးပြုလုပ်ငန်းများတွင် သုံးစွဲသွားမည် ဖြစ်သည်။

လူထုအကျိုးပြုဆောင်ရွက်မည့် လုပ်ငန်းရာထားချက်

စဉ်	အကြောင်းအရာ	လှူဒါန်းမှု ရာခိုင်နှုန်း
၁။	စာသင်ကျောင်းများ	၀.၅%
၂။	သင်တန်းကျောင်းများ	၁%
၃။	ဝန်ထမ်းများ၏ ကျန်းမာရေးစောင့်ရှောက်မှု	၀.၅%

နိဂုံးနှင့် အကျိုးပြုချက်

နိဂုံးချုပ်အားဖြင့် ယခုစီမံကိန်းသည် ဆက်လုပ်ရေးကာလ၊ လုပ်ငန်းလည်ပတ်သည့်ကာလနှင့် လုပ်ငန်းမျက်သိမ်းသည့် ကာလသုံးခုလုံးတွင် ဒေသခံပြည်သူများကိုအလုပ်အကိုင် အခွင့်အလမ်းများ ဖန်တီးပေးနိုင်သည်။ ကာလသုံးခုလုံးတွင် ဖြစ်ပေါ်လာနိုင်သော ထိခိုက်မှုများကို လျော့ချနိုင်မည့် နည်းလမ်းများနှင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား အကောင်အထည်ဖော်ခြင်းဖြင့် လျော့ချနိုင်သည်။ ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်အား စီမံကိန်း၏ ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေးကို စောင့်ကြပ်ကြည့်ရှုရန် မဖြစ်မနေ အကောင်အထည်ဖော်ပေးရမည်။ စီမံကိန်းကောင်အထည်ဖော်သူသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှ ယခုအစီရင်ခံစာ

အား စစ်ဆေးပီးနောက် ပြန်လည်ပေးပို့လာသော သဘောထားမှတ်ချက်နှင့် အကြံပြုချက်များကိုလိုက်နာရမည်။ ထို့ပြင် စီမံကိန်းအကောင်အထည်ဖော်သူသည် မြန်မာနိုင်ငံ၏ ပတ်ဝန်းကျင်နှင့် သက်ဆိုင်သောမူဝါဒများ၊ ဥပဒေများ၊ နည်းဥပဒေများ၊ သတ်မှတ်ချက်များကို လိုက်နာရန်လိုအပ်ပါသည်။

EXECUTIVE SUMMARY

Introduction

Everyone wants to live in a place that's clean and healthy. That is why one of the world's primary concerns is the environment. As sad as it is, the world today is dying. The environment is slowly decaying, and it's all because of human negligence. Environment Management Plan is required for ensuring sustainable development. It should not affect the surrounding environment adversely. The management plan presented. Which needs to be implemented by the proposed expansion of Tae Hyun (Myanmar) Industry Company Limited. The Environment Management Plan (EMP) 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.

The project is new investment for manufacturing of wearing apparel (such as jacket and cap). The project is issued by the Yangon Region Investment Committee (YRIC) on 29 October 2019 with the Endorsement No. YGN- 277/2019. YRIC notified for the environmental approval and comments of the Ministry of the Natural Resources and Environmental Conservation (MONREC) on the proposed project and had approved the proposal for investment in Manufacturing of wearing apparel of Tae Hyun (Myanmar) Industry Company Limited as a solely owned Myanmar investment.

According to the Myanmar Environmental Conservation Law (2012), it requires that the proponents of every development project in the country submit either an Initial Environmental Examination (IEE) or an Environmental Impact Assessment (EIA) to Ministry of Natural Resources and Environmental Conservation (MONREC). As per the comments of Environmental Conservation Department (ECD), said project requires an Environmental Management Plan (EMP) to meet the environmental assessment requirements of Notification No. Yaka- 1/3/4 (EIA) (2200/2019) on 8 October 2019. Therefore, Tae Hyun (Myanmar) Industry Company Limited commissioned Myanwei Environmental Solutions Company Limited for EMP report study.

Information of Investor

Investor Name:	Daw Nyein Nyein Zaw
ID No. :	12/Ka Ma Ya (N) 047513
Citizenship:	Myanmar
Address of Registration office:	Room No.25, Building No.1, Pyay Yeik Mon Housing, 8 Quarter, Kamayut, Yangon.

Salient Features of the Project

Type of Proposed Business	Manufacturing of Apparel (Such as Various Kinds of Jacket and Cap) on CMP Basis
Type of investment	Myanmar Citizen Investment
Type of Share	Joint Venture
Type of land	Industrial Land
Total land area	0.977 acres (3953.7787 sq m)
Total building area	One Factory Building (80 ft × 180 ft)

Environmental Management Plan

	Two Storey Office Building (80 ft × 20 ft) Two Storey Dormitory (10 ft × 40ft) Two Storey Security Gate (10 ft × 10 ft)
Land lease year	25 years
Construction period	1 years
Operation starting date	25 years investment permit
Address	Plot No.139, Myay Taing Block No. Part-4, Industrial Zone, Hlaing Thar Yar Township, Yangon Region.
Contact person	Daw Nyein Nyein Zaw 09-420205645

Includes the scope of the study of proposed project, EMP study objective and responsibility of EMP expert team of Myanwei Environmental Solutions Company Limited and also described about of objective of Environmental Management Plan.

Policy, Legal and Institutional Framework

The brief summary of relevant national environmental legislations such as Environmental Impact Assessment Procedure (2015) and National Environmental Quality (emission) Guidelines, established by the Ministry of Natural Resources and Environmental Conservation (MONREC) and overview of current local and international environmental and social policies including related international or regional convention for the proposed project. These are as follow:

1. Constitution 2008
2. Environmental Conservation Law, 30 March 2012
3. Environmental Conservation Rules, 2014
4. Environmental Impact Assessment Procedure (December 2015)
5. National Environmental Quality (Emission) Guideline (NEQG) (December 2015)
6. National Environmental Policy of Myanmar (2019)
7. Foreign Investment Law, 2012
8. Foreign Investment Rule, 2013
9. Myanmar Investment Rule, 2017
10. Payment of Wages Law (2016)
11. Yangon City Development Committee Law (2018)
12. The Amended Law for Factories Act, 1951 (2016)
13. The Private Industrial Enterprise Law, 1990
14. The Export and Import Law (2012)
15. The Prevention of Hazard from Chemical and Related Substances Law, 2013
16. Underground Water Act

17. Myanmar Fire Brigade Law (2015)
18. The Electricity Law (2014)
19. Boiler Law (2015)
20. The Social Security Law (2012)
21. Labor Dispute Settlement Law (28 March 2012 replacing 1929 version)
22. The Employment and Skill Development (2013)
23. The Worker's Compensation Act, 1923
24. The Payment of Wages Act, 1936
25. The Leave and Holidays Act, (1951, partially revised in 2014)
26. The Minimum Wage Law (2013)
27. Public Health Law (1972)
28. Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)
29. Occupational Safety and Health Law (2019)
30. The Law on Standardization
31. လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သောဝတ္ထုပစ္စည်းများဆိုင်ရာဥပဒေ (၂၀၁၈)
32. The Motor Vehicles Law (2015)
33. The Conservation of Water Resources and River Law (2006)
34. The Commercial Tax Law (1990) Amended 2014

And occupational health and safety guideline is referenced from International Finance Corporation (IFC) guidelines. Tae Hyun (Myanmar) Industry Company Limited is commitment and complied for environmental prevention and EMP.

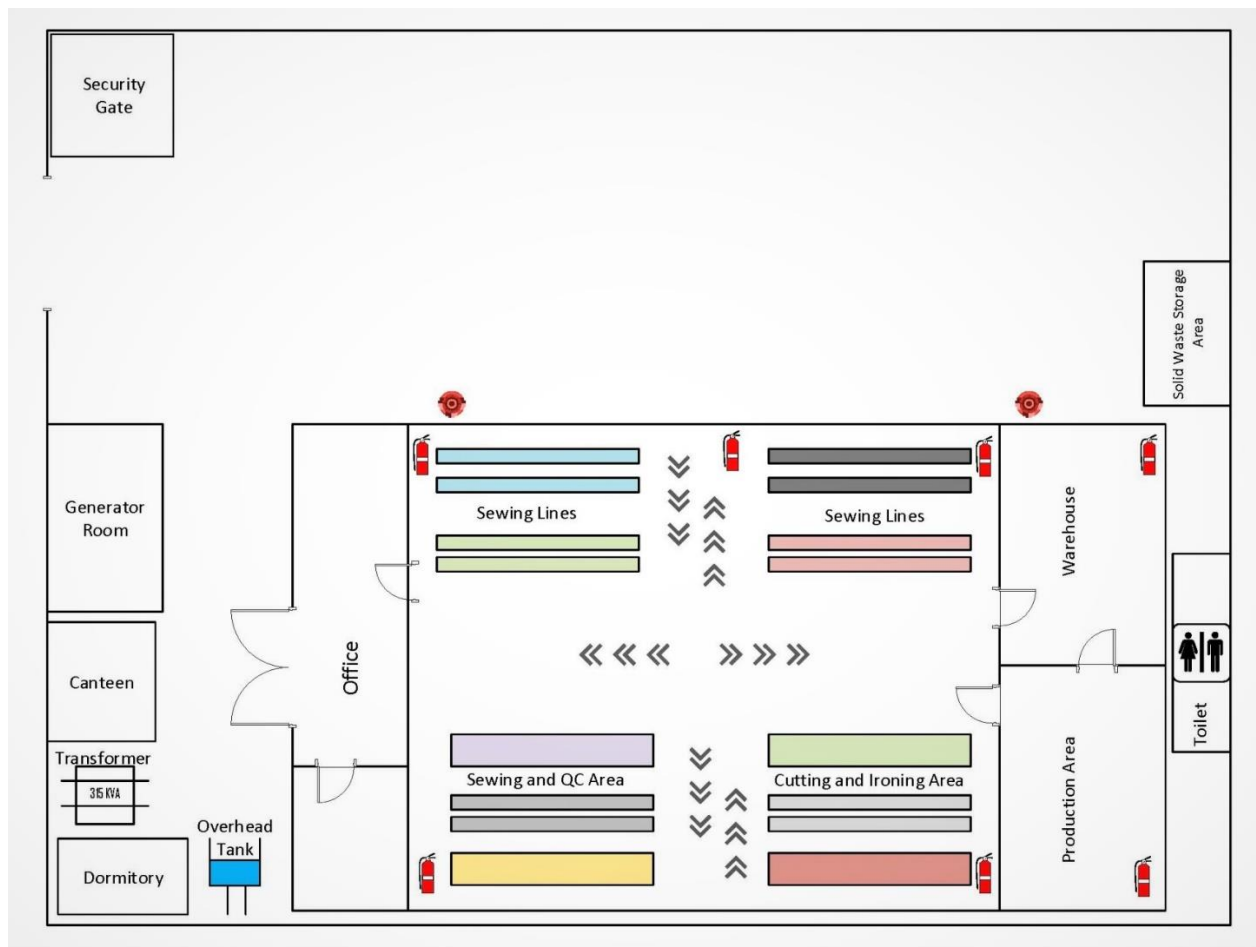
Project Description

The proposed project is located at Latitude 16°51'22.52"N and Longitude 96° 3'32.77"E, Plot No.139, Myay Taing Block No. Part-4, Industrial Zone, Hlaing Thar Yar Township, Yangon Region.. The total area of project site is 0.977 acres (3953.7787 sq m). The project is separated into two storey dormitories (10 ft x 40 ft), two storey security gates (10 ft x 10 ft), two Storey Office Building (80 ft x 20 ft) and one factory building (80 ft x 180 ft). Main structure was designed into fabric warehouse, HR office room, cutting line, sewing line, ironing section and final inspection room

Environmental Management Plan



Location Map of Proposed Project

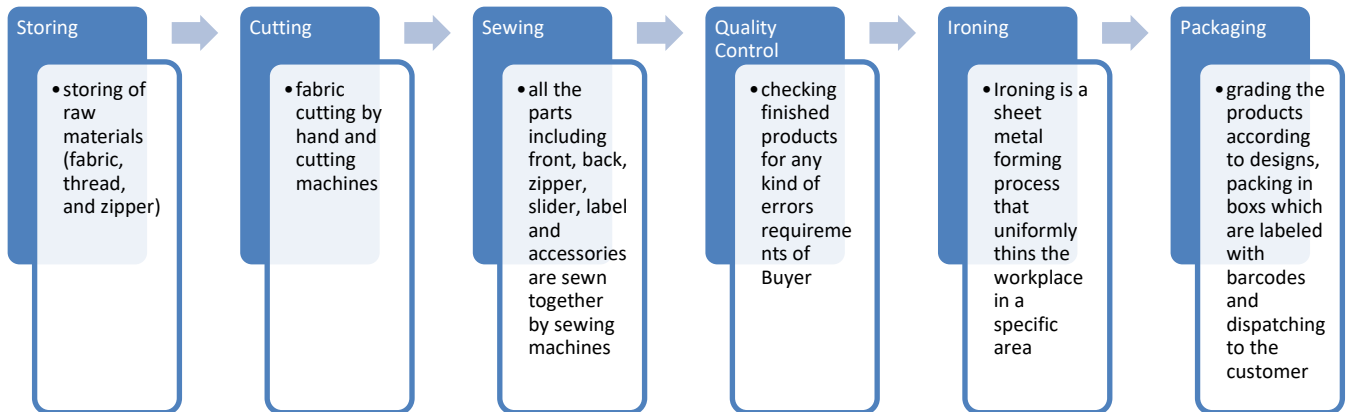


Factory Layout Drawing

Environmental Management Plan

The main raw materials are fabric, interlining, zipper, thread, label, sticker, button etc, which imported from China. These raw materials are imported by the permission of department of Trade with import license and stored in warehouses according to their various kinds of products.

The products of Tae Hyun (Myanmar) Industry are jacket and cap. The Utilities for proposed factory include electrical power, fuel oil for emergency used generator and water for domestic use. Electric power is used for the purpose of to run the steam boiler and to provide lighting.



Production Process



Products Photo

Brief Description of Surrounding Environment

For environmental baseline, data were collected by onsite measurements analysis during operation phase on 17 July 2020. On-site measurement was taken by indoor temperature, humidity, noise level and operation light condition at the factory. Moreover, secondary data collection of proposed project site area such as socio-economic condition, physical/ biological environment, weather data were collected from official township data was obtained from Regional Data of Hliang Thar Yar Township.

Survey Result in Proposed Project

Type	Result
Weather Condition	
Indoor temperature	36.7 °C
Humidity	84.9 %
Noise level	
Operation area	73.64 dBA
Air Quality	
PM 10	18.1 µg/m ³
PM 2.5	12.2 µg/m ³
CO	1.825 µg/m ³
NO ₂	92.7 µg/m ³
SO ₂	365.8 µg/m ³

Environmental Impact and Mitigation Measure

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.

Impact Assessment Parameter and Its Skill

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

Environmental Management Plan

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

Evaluation of Significant Impacts and Mitigation Measure

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance
		M	D	E	P	SP	
Construction Phase; It is not assessed in this phase, because of construction is already completed during EMP preparation.							
Operation Phase							
Air pollution	Dust and GHGs emission from vehicles used for transporting raw materials and final products Particulate matters emission from the activities of production process Emission of smoke from steam boiler (rice briquettes) and kitchen Emission from emergency diesel generator	3	4	2	4	36	Moderate
Water pollution	Sewage disposed of from the toilets Oil spill and grease leaks from transporting vehicles and machinery equipment used in operation phase	1	4	1	1	6	Very Low
Soil Contamination	Accidental spillage of oil used by vehicles operating	1	4	1	1	6	Very Low
Noise Pollution	Generating noise from the production machinery Noise from the generating of the emergency generators	1	4	1	1	6	Very Low
Flora and fauna on terrestrial and aquatic life	Operation of proposed project	1	4	1	1	6	Very Low
Fire Hazard	Poor electrical installations waste disposed area Raw materials storage	3	5	2	4	40	Moderate
Occupational Safety (Accidents, Injuries)	Accidental cases cause by operating machines. Unloading, cutting, and packaging activities. Accidental cases of thermic fluid heater	3	4	1	4	32	Moderate
Health	Influx of people Noise from the generating of the emergency generators	2	4	1	2	14	Very Low
Solid waste	residual pieces of fabric scraps from the production lines	3	4	1	4	32	Moderate

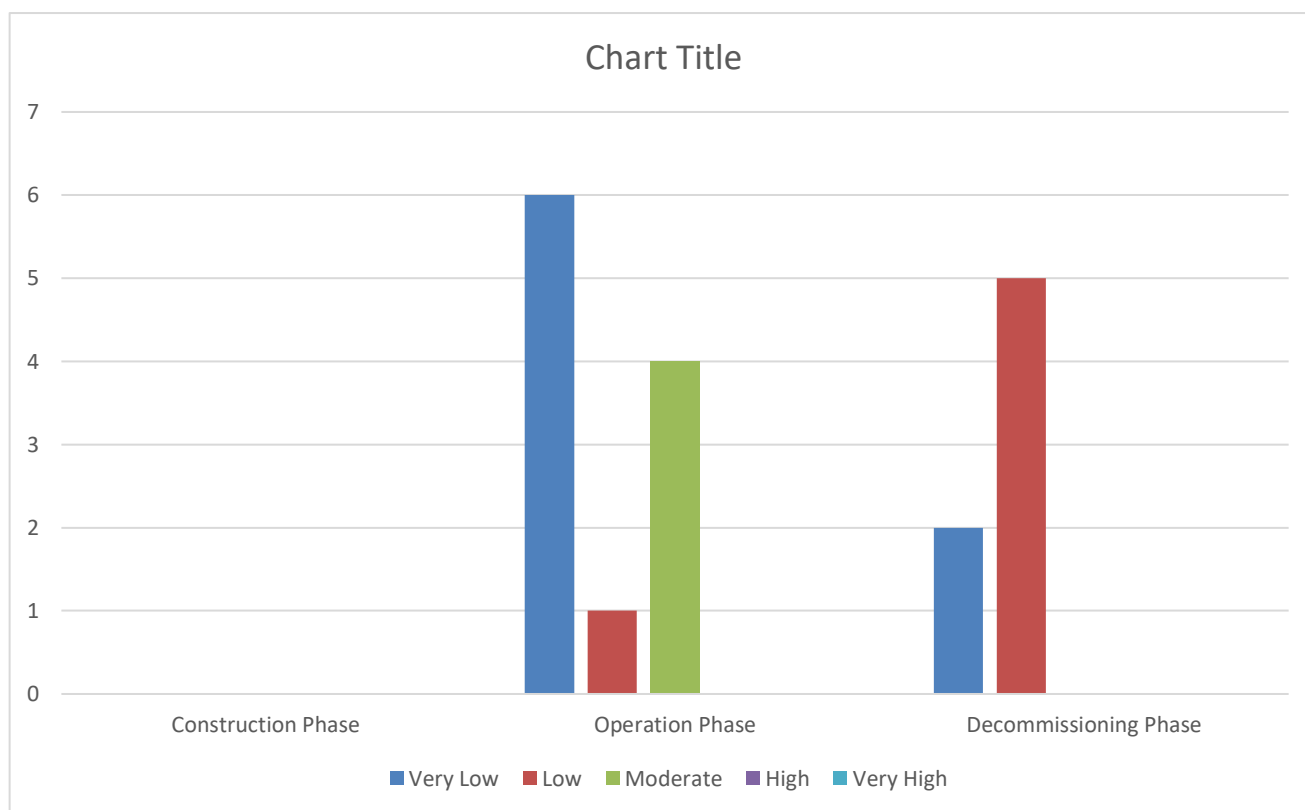
Environmental Management Plan

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance
		M	D	E	P	SP	
	Waste from packaging materials Waste from kitchen, dormitory and office.						
Liquid waste	Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory.	2	4	2	2	16	Low
Hazardous waste	Engine oil leaks, spills at diesel storage and during fuel refueling. Used oil and lubricant discharged from the maintenance of vehicles and machines.	2	4	1	2	14	Very Low
Social-economic Condition	Job opportunities for local people	-	-	-	-	-	Positive Impact
Earthquakes, Floods, landslides and cyclone	-	-	-	-	-	-	-
Decommissioning Phase							
Air pollution	Decommissioning of buildings and related materials Transportation of demolished materials	3	1	1	4	20	Low
Water pollution	Sewage form decommissioning workers Demolition machinery equipment	3	1	1	3	15	Low
Soil Contamination	Decommissioning of buildings and related materials Transportation of demolished materials	3	1	1	3	15	Low
Noise Pollution	Decommission activities Transportation of demolished materials	3	1	1	3	15	Low
Waste disposal	Sewage system Demolished debris such as bricks, concrete materials	2	1	1	3	12	Very Low
Hazardous waste	Used lubricants from decommissioning vehicles and machines	2	1	1	3	12	Very Low
Occupational Health and Safety (Accidents, Injuries)	Decommissioning activities Transportation of demolished materials	3	1	2	3	18	Low
Social-economic Condition	Temporary job opportunities for local people	-	-	-	-	-	Positive Impact

The assessment of each impact is based on consideration of the magnitude, duration, extent and probability of activities, which are going to be carried out during operation phases. In operation phase, there are 4 moderate significance impact on environment and human (Air, Fire, Solid waste ,occupational health and safety). 1 low significant impacts on environment and human (liquid waste). 6 very low significant impact on environment and human (Water pollution, Soil Contamination, Noise Pollution, Flora and fauna on terrestrial and aquatic life, Health, Hazardous waste). In decommissioning phase 2 very low significant impact on environment and human (waste disposal and

Environmental Management Plan

hazardous waste). 5 low significant impacts on environmental and human (air, water pollution, soil contamination, noise and vibration and occupational health and safety). Significance impacts on environmental and human and detail impact assessment for operation phases and decommissioning can be seen in above tables. All of the impacts during operation phases and decommissioning phase can be minimized by using mitigation measures and implementing Environmental Management Plan.



Comparison of Impact Significant of Proposed Project

Negative impacts and mitigation measures of the proposed factory were taken into consideration during the study. The significant sources of gas emission from emergency generator and transportation vehicles will be mitigated by using maintaining system in the operation process. Used of Generator should be housed in a suitable acoustic enclosure. The acoustic insulation should be designed to meet mandatory standards based on a 25dB insertion loss. the appropriate water conservation plan should be implemented. Tae Hyun (Myanmar) Industry Company Limited also has an agreement services with YCDC for waste disposal facilities to collect the production waste, office waste and domestic waste. Monitoring should be designed and implemented by accredited professionals, as part of an occupational health and safety-monitoring program.

Environmental Management Action

The Environmental Management Plan (EMP) formulated with the anticipated impacts, mitigation measures, management and monitoring plans during all phases are implemented. Tae Hyun (Myanmar) Industry Company Limited has organized Environmental Management Team to accomplish these plans and to review EMP regularly for improvements and modifications. Ambient air quality, noise, water quality, sewage and solid waste disposal are monitored by Team Leaders of Committee.

Environmental Management Plan

The project proponent has performed Corporate Social Responsibility (CSR) plan and Emergency Preparedness for the benefits of residents and local community.

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 EMP 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

- Must be plant around the proposed project to reduce carbon emission
- Should be prohibited burning of waste material at the proposed project site
- Must be control air pollution, the vehicles, generators and machineries have to check and maintain regularly.
- The factory should use chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment.
- Must be ensuring vehicles, compressor and generator are well maintained.

2. Noise Management Plan

- Building noise insulated generator room and ensure satisfactory maintenance of relevant equipment
- Impose speed limit to track and vehicles at the transportation route.
- Provide sufficient personal protective equipment (PPE) at the work place
- All the related personnel will be provided proper training about the relevant issues and ensure PPE wear during working in noisy area.

3. Fire Management Plan

- Must be provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases.
- Must be indicated the emergency exit and assembly point in public area.
- 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.

4. Occupational Safety and Health Management Plan

- 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 (PPE) 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.
- Manage the drainage systems of the factory to prevent health risk of the workers.
- The maximum allowable noise level for workers is 90dB(A) for 8hours 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.

5. Solid Waste Management Plan

- Must be 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.

6. Liquid Waste Management Plan

- Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.

7. Hazardous Waste Management Plan

- 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)

8. Energy Management Plan

- Installation of timers and thermostats to control heating and cooling
- Energy saving light installed in different area of the factory for saving energy
- Used of energy saving devices must be installed
- Ensure that good housekeeping measures such as turning off equipment and lights when not in use

9. Emergency Response and Disaster Management Plan

- The factory management has taken proper measures to handle any emergency situation like fire, earthquake, flood and storm
- Provision and inspection of firefighting equipment and fire hydrant system in all the sections

Environmental Management Plan

- A detail evaluation plan (fire exist, emergency exit door, etc.) is established and communicated with workers
- Periodic inspection of safety relief valve provided with pressure vessels and equipment, preventive maintenance; aware the workers about electric shock by necessary training.
- Regular fire drill operation is conducted
- Workers are informed about what to do in earthquake like stay in a safe place such as under table of desk, not to try move outside during earthquake, workers who will be outside during earthquake shall remain stay out of the building, trees, lump post, etc. Other relevant safety instruction of emergency situation it informed to workers by training
- Workers are aware of dangers from physical hazards such as obstacles covered by floodwater (storm debris, drainage opening, ground erosion) and from displaced reptiles (Snake) or other animals.
- A medical team has been prepared for primary treatment (First Aid)
- Prepare an emergency contact directory consisting contact numbers of nearest fire service, local police station, hospitals, etc. and display it in a place that everybody can see it easy.
- Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management
- Ensure proper training of the employees about the disaster management, fire safety as well as occupational health and safety

10. Environmental Monitoring Schedule and Reporting

11. Capacity Building and Training Plan

12. Corporate Social Responsibility (CSR)

Tae Hyun (Myanmar) Industry Company Limited will contribute 2% of our Net Profit to social welfare activities that will help society and country of Myanmar.

CSR portion plan

No.	Particle	Contribution
1	Public school	0.5%
2	Non-profit training	1
3	Employee healthcare	0.5%

Conclusion & 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 EMP. It has been figured out that, the proposed outer and inner soles production 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
- 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 EMP 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 EMP report. Once concerned authorities approve EMP, effective implementation of EMP 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

Everyone wants to live in a place that's clean and healthy. That is why one of the world's primary concerns is the environment. As sad as it is, the world today is dying. The environment is slowly decaying, and it's all because of human negligence. Environmental Management Plan is required for ensuring sustainable development. It should not affect the surrounding environment adversely. The management plan presented. Which needs to be implemented by the proposed expansion of Tae Hyun (Myanmar) Industry Company Limited. The Environmental Management Plan (EMP) 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.

1.1. AIM OF ENVIRONMENTAL MANAGEMENT PLAN

- Provide environmental management plan that minimize the environmental impact of the works and identify those responsible for its implementation.
- Define the monitoring program, which assess the implementation.

1.2. 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.

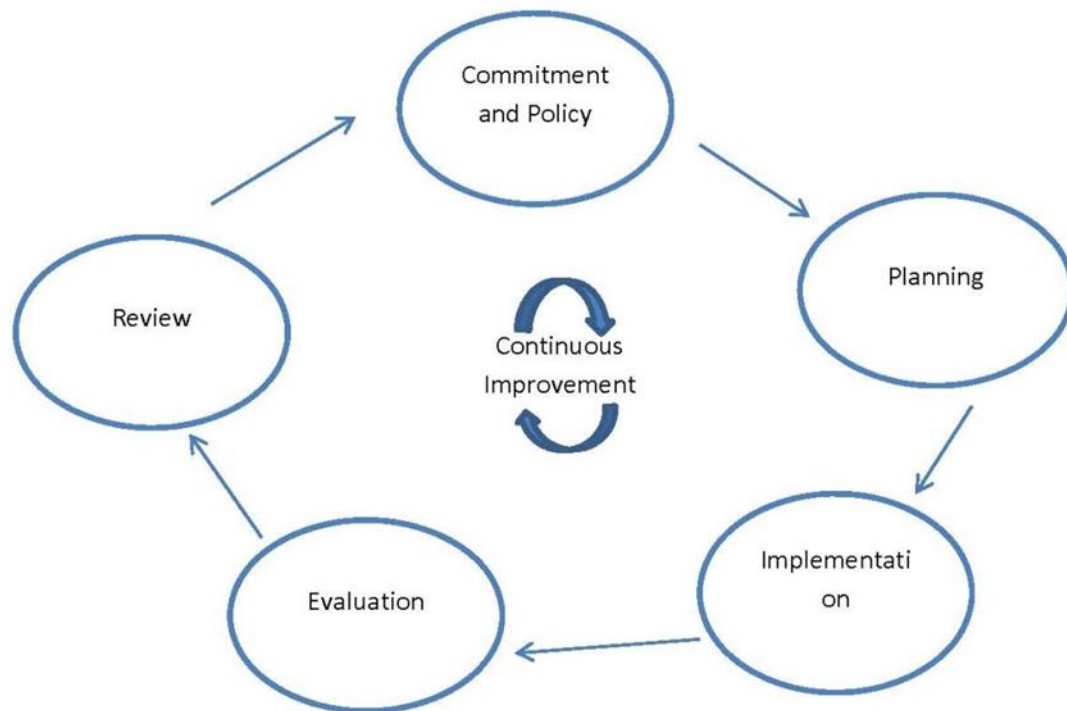


Figure 1-1 Continuous Improvement Circle

- **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.

1.2.1. Institutional Requirement

Tae Hyun (Myanmar) Industry Company Limited will 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 EMP and Environmental Monitoring Plan (EMP) as well as coordination with local authorities and the nearby communities. The HSE Team also makes regular review of EMP to cover all potential impacts, amendments and modifications.

1.2.2. Responsibilities of the EMP

In order to ensure the sound development and effective implementation of the EMP, 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 EMP:

Tae Hyun (Myanmar) Industry 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 EMP are met. The implementation of Environmental Management Plan (EMP) process will prepare and follow up by appointed persons for health, safety, and environmental management under the instruction of management team of Tae Hyun (Myanmar) Industry Company Limited for EMP 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 EMP is up to date and is being followed properly by the proponent. Periodic audits of the EMP 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.

1.2.3. Structure and Responsibilities for the EMP Development and Implementation

The HSE officer is responsible to the HSE components of the project and on matters relating to the implementation of the EMP throughout operation life. The S&E officer will have responsibilities that include:

- Ensure a monitoring system is in place to track and report all health, safety and environmental incidents;

Environmental Management Plan

- 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 EMP and require the HR supervisor to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

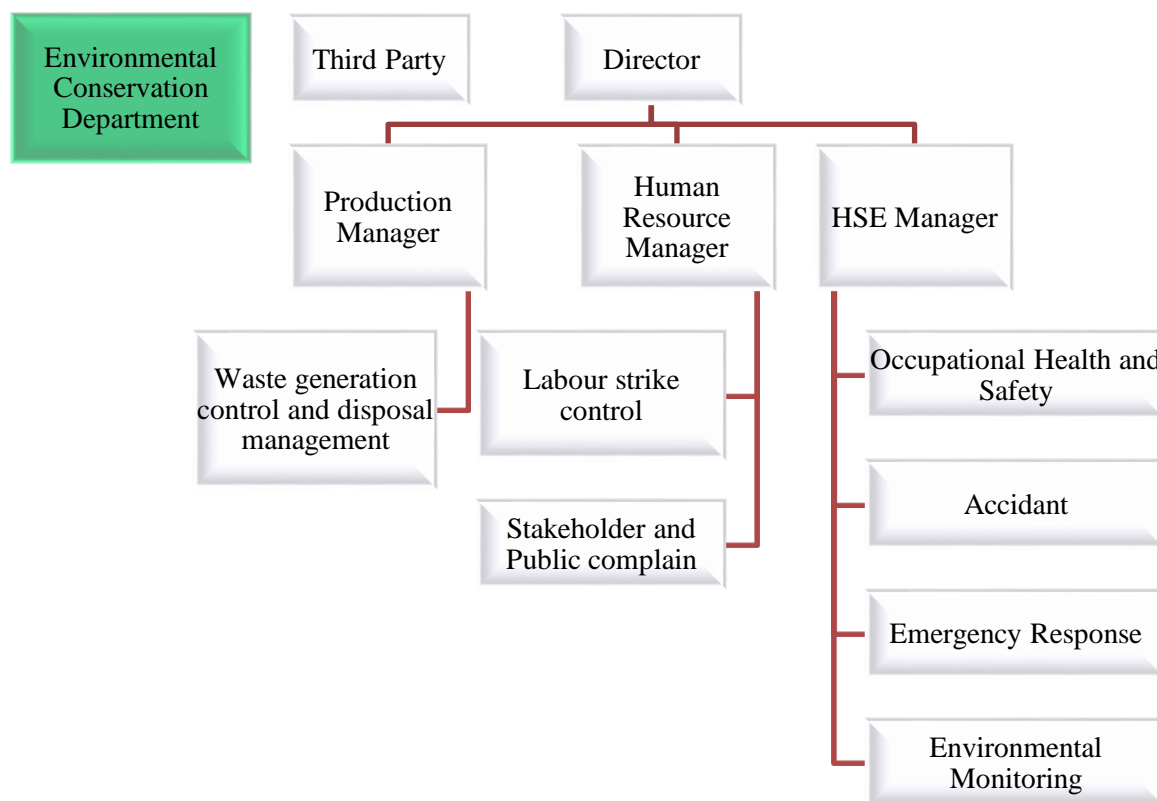


Figure 1-2 Organization Structure of Environmental Management Plan

Table 1-1 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 EMP • 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
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 Management Plan

Roles	Responsibilities
	environmental incidents <ul style="list-style-type: none"> Managing resources for operation wastes
HR Manager	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: <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	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: <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 EMP and require the HR Manager to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

1.3. PROJECT BACKGROUND

The project is new investment for manufacturing of wearing apparel (such as various kinds of jacket and cap) on Cutting, Making and Packaging (CMP) Basis. Yangon Region Investment Committee (YRIC) issues the project on 29 October 2019 with the Endorsement No. (YGN-277/2019). According to the YRIC Endorsement which confidential was issued in Section 19, Tae Hyun (Myanmar) Industry 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 Environmental Management Plan (EMP). As per the comments of Environmental Conservation Department (ECD), said project requires an Environmental Management Plan (EMP) to meet the environmental assessment requirements of Notification No. Yaka- 1/3/4 (EIA) (2200/2019) on 8 October 2019. It has to prepare, submit, perform activities in accordance with this EMP, and abide by the environmental policy, Environmental Conservation Law and other environmental related rules and procedures. Therefore, Tae Hyun (Myanmar) Industry Company Limited commissioned Myanwei Environmental Solutions Co., Ltd. (Myanwei) for EMP report study.

This EMP report is prepared based on the impact identified in EIA procedure (2015). The EMP is prepared provide additional guidance on the means, methods and mechanisms by which such mitigation measures will be implemented. The EMP is one of the most important outputs of the

environmental assessment process. The EMP is the synthesis of all proposed mitigate and monitoring actions, set to a timeline with specific responsibility assigned and follow up actions defined. The EMP can be prepared at different times of the project life. Operation environmental management plan 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 environmental management plan is designed for this factory.

1.3.1. Project Proponent Profile

This is the information of project proponent from the YRIC's registration that is describing in below Table 1-2 and Table 1-2. The estimated authorized capital investment is 1245.000 million (Including US\$ 0.290 Million) US Dollar. Organization chart of Tae Hyun (Myanmar) Industry Company Limited is presented in Figure 1-3.

Table 1-2 Project Proponent Information

Name of Shareholder	Citizenship	Percentage
Tae Hyun (Myanmar) Industry Company Limited Representative by Daw Nyein Nyein Zaw Mr. Koo Ja Yong	Myanmar Republic of Korea	100%

Table 1-3 Salient features of the project

Type of Proposed Business	Manufacturing of Apparel (Such as Various Kinds of Jacket and Cap) on CMP Basis
Type of investment	Myanmar Citizen Investment
Type of Share	Joint Venture
Type of land	Industrial Land
Total land area	0.977 acres (3953.7787 sq m)
Total building area	One Factory Building (80 ft × 180 ft) Two Storey Office Building (80 ft × 20 ft) Two Storey Dormitory (10 ft × 40ft) Two Storey Security Gate (10 ft × 10 ft)
Land lease year	25 years
Construction period	1 year
Operation starting date	25 years investment permit
Address	Plot No.139, Myay Taing Block No. Part-4, Industrial Zone, Hlaing Thar Yar Township, Yangon Region.
Contact person	Daw Nyein Nyein Zaw 09-420205645

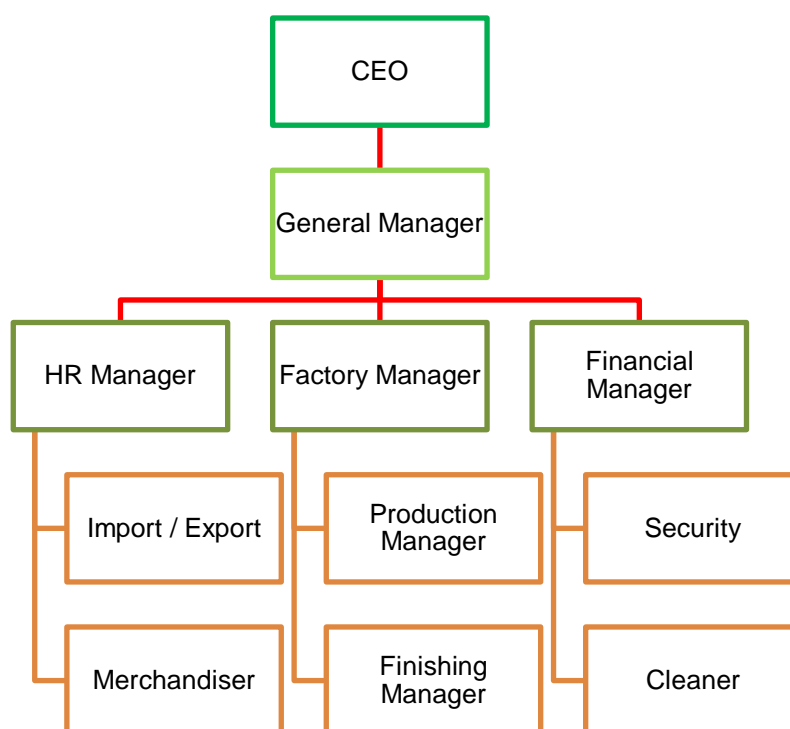


Figure 1-3 Organization Chart of Tae Hyun (Myanmar) Industry Company Limited

1.3.2. Environmental Consult Profile

Myanwei Environmental Solutions Company Limited prepares the EMP for the proposed project. The field studies were carried out by MYANWEI having experiences in conducting environmental assessments for various types of projects in Myanmar. The MYANWEI team conducted field survey, assessment activities, and prepared the report. A reconnaissance study was performed on the proposed project site and baseline environmental data were also collected from possible sources using the appropriate measuring devices. Data interpretation and analysis were made based on those collected data for the present and potential future conditions. Suitable measures were proposed for the impacts to be mitigated to reduce to acceptable ones. The environmental study was carried out by the 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, Yangon, Myanmar.	01-501221 env@myanweiconsulting.com www.myanweiconsulting.com.
---	---	--

Table 1-4 Member of EMP Study Team

Name	Qualification	Responsibility
Myanwei Environmental Solutions Company Limited	Transition Consultant Registration Certificate No. 0069	EIA Organisation
Mr. Lin Htet Sein	MSc (Regional Geology) BSc (Hons) Geology Dip in Environmental Science	Project Director, Environmental consultant, project management

Environmental Management Plan

	Certificate in Environmental & Social Assessment TCR No. 0048	
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. Su Myat Hlaing	B.E. Civil Engineering B. Tech Civil Engineering	Environmental Engineer
Mr. Kyaw Win Han	B.E. Chemical Engineering B. Tech Chemical Engineering	Junior Environmental Consultant, Team leader of baseline survey, monitoring measure
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. Htoo Nanda Aung	B.Sc (Forestry)	Junior Environmental Consultant, monitoring measure, document administration
Mr. Si Yan Hein	B.Sc (Geology) 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

2. 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.

2.1. 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 (MOECF) in April 2016.

2.1.1. Laws and Regulations Related to Environmental and Social Considerations

Requirements related to environmental (and social) impact management for development projects are described in Table 2-1.

Table 2-1 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

Environmental Management Plan

	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>

Environmental Management Plan

	(c) shall comply with the directives issued for environmental conservation 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 EMP 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 EMP. 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, EMP 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 EMP 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</p>

Environmental Management Plan

	<p>or her responsibility, other implementation, ECC or EMP. If dangerous 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 EMP, 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

Environmental Management Plan

	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 employer 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.

Environmental Management Plan

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

Environmental Management Plan

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.	
Boiler Law (2015)	
Chapter (2) Objective	<p>The objectives of this law are as follows:</p> <ul style="list-style-type: none"> (a) To obtain boilers in compliance with Myanmar Standards or International Standards (b) To prevent the country and citizens from hazards caused by boiler accidents (c) To use boilers in compliance with Myanmar Standards or International Standards within the country (d) To develop boiler technology and to produce experts capable of manufacturing, handling, repair, and maintenance of boilers (e) To optimize the use of boilers through effective utilization of fuel energy (f) To reduce the environmental, social and health impacts through long-lasting use of boilers.
Chapter (3) 4. With the permission of the Ministry, the inspector general can:	<p>Notify the inspection methods and instructions according to the national or international standards for safe operations of boilers in line with this law, procedures and instructions</p> <p>Only the results obtained from the prescribed boiler standards and inspection methods will be approved.</p>
Chapter (4). Boiler Registration	<p>5. Anybody who would like to use a boiler in any kind of business should be registered.</p> <p>6. Boiler should be manufactured according to Myanmar Standards or International Standards.</p> <p>7. Those who would like to apply for boiler registration according to Section 5 should apply to the inspector with the application, documents and vouchers related to boiler</p> <p>8. If the application regarding registration of boiler according to Section 7, the Registration Officer should conduct necessary inspection and submit results of the findings to the Inspector General.</p> <p>9. The Inspector General should assess and inspect the submission of the Registration Officer according to Section 8 and could allow or reject for registration of the boiler.</p> <p>10. The Inspector General shall define boiler size according to heated surface area in accordance with adopted procedures.</p>
Chapter (13) Prohibitions	<p>59. According to Section 21, nobody must alter, change, deface, deform or make embossed registration unnoticeable illegitimately.</p> <p>60. Nobody is allowed to repair a boiler without boiler repair certificate.</p> <p>61. Nobody is allowed to maintain a boiler without boiler maintenance certificate.</p> <p>62. Nobody must alter safety relief valve in order to exceed the allowable</p>

Environmental Management Plan

	pressure due to his consent or direction given by the owner. 63. Nobody must manufacture boilers against Section 25, Subsection 25 (a) and (b) enacted.
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 employer 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, employer 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, employer 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	<p>4. When a Principal Epidemic Disease of a Notifiable Disease occurs; Immunization and other necessary measures shall be undertaken by the Department of Health, in order to control the spread thereof;</p> <p>The public shall abide by measures undertaken by the Department of Health under sub-section (a).</p>
Chapter 4 Environmental Sanitation	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

Environmental Management Plan

	<p>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> <p>to enable to determine Myanmar Standard</p> <p>to enable to support export promotion by enhancing quality of production organizations and their product, production processes and services</p> <p>to enable to protect the consumers and user by guaranteeing imports and products are not lower than prescribed standard, and safe from health hazards</p> <p>to enable to support protection of environment related to products, production process and services from impact, and conservation of natural resources</p> <p>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</p> <p>to support on establishing the ASEAN Free Trade Area and to enable to reduce technical barriers to trade</p> <p>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.</p>
Chapter 7 Taking Action by Committee No. 19	<p>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:</p> <p>warning</p> <p>suspending the certificate of certification for limited period</p> <p>cancelling the certificate of certification</p>

လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများဆိုင်ရာဥပဒေ (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.

2.2. NATIONAL ENVIRONMENTAL QUALITY (EMISSION) GUIDELINES

As specified in the EIA Procedure, all projects are obliged to use, comply with and refer to applicable national guidelines or standards or international standards adopted by the Ministry. As specified in the EIA Procedure, following project approval a project shall commence implementation strictly in accordance with the project EMP and any additional requirements set out in the project ECC, which will encompass conditions relating to emissions. While these Guidelines generally apply to all projects subject to the EIA Procedure, it is the prerogative of the Ministry to decide how the Guidelines should be applied to existing projects as referred to in the EIA Procedure.

According to the Environmental Conservation Law, MOECAP shall set standards of environmental qualities as agreed by the Union Government and the Environmental Conservation Committee 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.

2.2.1. General Guidelines

General guidelines of related environmental impact guideline for proposed project are -

2.2.2. Air Emission

Projects with significant sources of air emissions, and potential for significant impacts to ambient air quality, should prevent or minimize impacts by ensuring that: (i) emissions do not result in

concentrations that reach or exceed national ambient quality guidelines and standards, or in their absence current World Health Organization (WHO) Air Quality Guidelines¹ for the most common pollutants as summarized below; and (ii) emissions do not contribute a significant portion to the attainment of relevant ambient air quality guidelines or standards (i.e. not exceeding 25 percent of the applicable air quality standards) to allow additional, future sustainable development in the same air shed. Industry-specific guidelines summarized hereinafter shall be applied by all projects to ensure that air emissions conform to good industry practice. Reference should be made to WHO's Air Quality Guidelines for Europe for air pollutants not included in the following Table 2-2.

Table 2-2 WHO's Air Quality Guideline

Parameter	Averaging Period	Guideline Value
Nitrogen Dioxide	1-year	40
	1-hour	200
Ozone	8-hour	100
Particulate Matter PM10 ^a	1-year	10
	24-hour	50
Particulate Matter PM2.5 ^b	1-year	10
	24-hour	25
Sulfur dioxide	24-hour	20
	10-minute	500

^a Particulate matter 10 micrometers or less in diameter

^b Particulate matter 2.5 micrometers or less in diameter

2.2.3. Wastewater

Industry-specific guidelines apply during the operations phase of projects and cover direct or indirect discharge of wastewater to the environment. They are also applicable to industrial discharges to sanitary (domestic) sewers that discharge to the environment without any treatment. Wastewater generated from project operations includes process wastewater, wastewater from utility operations, runoff from process and storage areas, and miscellaneous activities including wastewater from laboratories, and equipment maintenance shops. Projects with the potential to generate process wastewater, sanitary sewage, or storm water should incorporate the necessary precautions to avoid, minimize, and control adverse impacts to human health, safety or the environment. Industry-specific guidelines summarized hereinafter shall be applied by all projects, where applicable, to ensure that effluent emissions conform to good industry practice.

For project types where industry-specific guidelines are not set out in these Guidelines, the following general guideline values, or as stipulated on a case-by-case basis, apply during project operations.

Table 2-3 Wastewater, Storm Water Runoff, Effluent and Sanitary Discharges (general application)¹

Parameter	Unit	Guideline Values
5-day Biochemical oxygen demand	mg/l	50
Ammonia	mg/l	10
Arsenic	mg/l	0.1
Cadmium	mg/l	0.1
Chemical oxygen demand	mg/l	250
Chlorine (total residual)	mg/l	0.2
Chromium (hexavalent)	mg/l	0.1
Chromium (total)	mg/l	0.5
Copper	mg/l	0.5
Cyanide (free)	mg/l	0.1
Cyanide (total)	mg/l	1
Fluoride	mg/l	20
Heavy metals (total)	mg/l	10
Iron	mg/l	3.5
Lead	mg/l	0.1
Mercury	mg/l	0.01
Nickel	mg/l	0.5
Oil and grease	mg/l	10
pH	S.U. ^a	6-9
Phenols	mg/l	0.5
Selenium	mg/l	0.1
Silver	mg/l	0.5
Sulphide	mg/l	1
Temperature increase	°C	<3 ^b
Total coliform bacteria	100 ml	400
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50
Zinc	mg/l	2

^a Standard Unit

^b At the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use, potential receptors and assimilative capacity; when the zone is not defined, use 100 meters from the point of discharge

¹ Pollution prevention and abatement handbook. 1998. Toward cleaner production. World Bank Group in collaboration with United Nations Environment Programme and the United Nations Industrial Development Organization.

2.2.4. IFC EHS Guidelines

The EHS Guidelines by International Finance Cooperation (IFC) are technical reference documents with general and industry-specific examples of Good International Industry practice (GIIP), as defined in IFC's Performance Standard 3: Resources Efficiency and Pollution Prevention. The EHS Guidelines contain the performance levels and measures that are normally acceptable to IFC, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology.

There are two kinds of guidelines, General EHS Guidelines and Industry Sector Guidelines. The General EHS Guidelines contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors in the following section: (1) Environment, (2) Occupational Health and Safety, (3) Community Health and Safety and (4) Construction and Decommissioning. Table 2-4 shows the contents of the section of Community Health and Safety.

Table 2-4 Community health and safety contents

Contents	Brief Description
Water Quality and Availability	Drinking water sources should at all times be protected so that they meet or exceed applicable national acceptability standards or in their absence the current edition of WHO Guidelines for Drinking-Water Quality. Project activities should not compromise the availability of water for personal hygiene needs and should take account of potential future increases in demand. The overall target should be the availability of 100 liters per person per day.
Structural Safety of Project Infrastructure	Reduction of potential hazards is best accomplished during the design phase when the structural design, layout and site modifications can be adapted more easily. The following issues should be considered and incorporated as appropriate into the planning, siting, and design phases of a project (1) inclusion of buffer strips or other methods of physical separation around project sites to protect the public from major hazards associated with hazardous materials incidents or process failure (2) incorporation of siting and safety engineering criteria to prevent failures due to natural risks posed by earthquakes, tsunamis, wind, flooding, landslides and fire, and (3) application of locally regulated or internationally recognized building codes, standards and regulations, and mitigation measures.
Traffic Safety	Traffic safety should be promoted by all project personnel during displacement to and from the workplace, and during operation of project equipment on private or public roads. Prevention and control of traffic related injuries and fatalities should include the adoption of safety measures that are protective of project workers and of road users, including those who are most vulnerable to road traffic accidents.
Transport of Hazardous Materials	Projects should have procedures in place that ensure compliance with local laws and international requirements applicable to the transport of hazardous materials.
Disease Prevention	Recommended interventions against the communicable diseases at the project level include (1) providing surveillance and active screening and treatment of workers, (2) preventing illness among workers in local communities by undertaking health awareness and education initiatives, training health workers in disease treatment and conducting immunization programs for workers, and (3) providing treatment through standard case management in on-site or community health care facilities.
Emergency preparedness and Response	All projects should have an Emergency preparedness and Response Plan that is commensurate with the risks of the facility and that includes the following basic elements: (1) Administration (policy, purpose, distribution, definitions, etc.) (2) Organization of emergency areas (command centers, medical stations, etc.) (3) Roles and responsibilities, (4) Communication systems, (5) Emergency response procedures, (6) Emergency resources, (7) Training and updating, (8) Checklists (role and action list and equipment checklist), and (9) Business Continuity and Contingency.

Source: IFC, Environmental, Health, and Safety (EHS) Guidelines, General EHS Guidelines: Community Health and Safety (April 30.20070)

2.3. INSTITUTIONAL ARRANGEMENT

The Ministry of Environmental Conservation and Forestry (MOECAF) was reformed as the Ministry of Natural Resources and Environmental Conservation (MONREC) on 30th March, 2016 in order to undertake both environmental and natural resources conservation and management more effectively. Under Section 3 of the Environmental Impact Assessment Procedure (2015), pursuant to section 21 of the law and Articles 52, 53 and 55 of the Environmental Conservation Rules, all projects and project expansions undertaken by any organization, which may cause impact on environmental quality that, are required to obtain prior permission. This is to be in accordance with section 21 of the Environmental Conservation Law, and Article 62 of the Environmental Conservation Rules, having the potential to cause adverse impacts, that are required to undertake IEE or EIA or to develop an EMP, and to obtain an Environmental Compliance Certificate (ECC) in accordance with this EIA procedure.

2.4. INTERNATIONAL GUIDELINES

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

2.5. COMMITMENT OF TAE HYUN (MYANMAR) INDUSTRY COMPANY LIMITED

Tae Hyun (Myanmar) Industry 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 EMP 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 EMP and be abided by the environment policy, Environmental Conservation Law and other environmental related rules and procedures.

- Monitoring the factory area operations according to EMP 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

3. PROJECT DISCRIPTION

3.1. LOCATION OF PROPOSED PROJECT

The proposed project is located at Latitude 16°51'22.52"N and Longitude 96° 3'32.77"E, Plot No. (139), Myay Taing Block No. Part-4, Industrial Zone, Hlaing Thar Yar Township, Yangon Region. The location map of the proposed project size is shown in Figure 3-1 The proposed project intends to manufacture of wearing apparel (such as various kinds of jacket and cap) on CMP basic and to export 100% of the finished products. Raw materials for jacket and cap products in the People Republic of China.

3.1.1. 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 construction phase of the proposed factory initiated in October 2019 according to the YRIC's Endorsement. The commercial running operation stage start in last week of October 2020. The proposed duration of the investment shall be 25 years. Tae Hyun (Myanmar) Industry Company Limited. will close the factory as their YRIC proposal. Project Proponent life of the factory shown in Table 3-1

Table 3-1 Project Proponent Life of the factory

	2019	2020											2023	2024	
Construction Phase															
Operation Phase															
Decommissioning Phase															

3.1.2. Adjacent Condition of Project Site

Kin Wun Min Gyi street was situated at the front of the factory & U Tayoke street was situated the beside of factory compound. List and map of adjacent condition of project site is shown in Table 3-2 and Figure 3-2.

Table 3-2 Adjacent Factories of the Project Site

Nature of Factory	Type	Location
Thayaphu Soe Myint Co., Ltd	Garment factory	Northwest
Pyae Phyo Aung Co., Ltd	Garment factory	Northwest

3.1.3. Site Description of Proposed Project Site

The total area of project site is net 0.977 acres. The project is separated into two storey dormitories (10 ft x 40 ft), two storey security gates (10 ft x 10 ft), two Storey Office Building (80 ft x 20 ft) and one factory building (80 ft x 180 ft). Main structure was designed into fabric warehouse, HR office room, cutting line, sewing line, ironing section and final inspection room. Admin office, generator

room and accommodation building are separated by main factory building structure. Factory layout drawing is able to seen in Figure 3-3 and Figure 3-4.

Environmental Management Plan

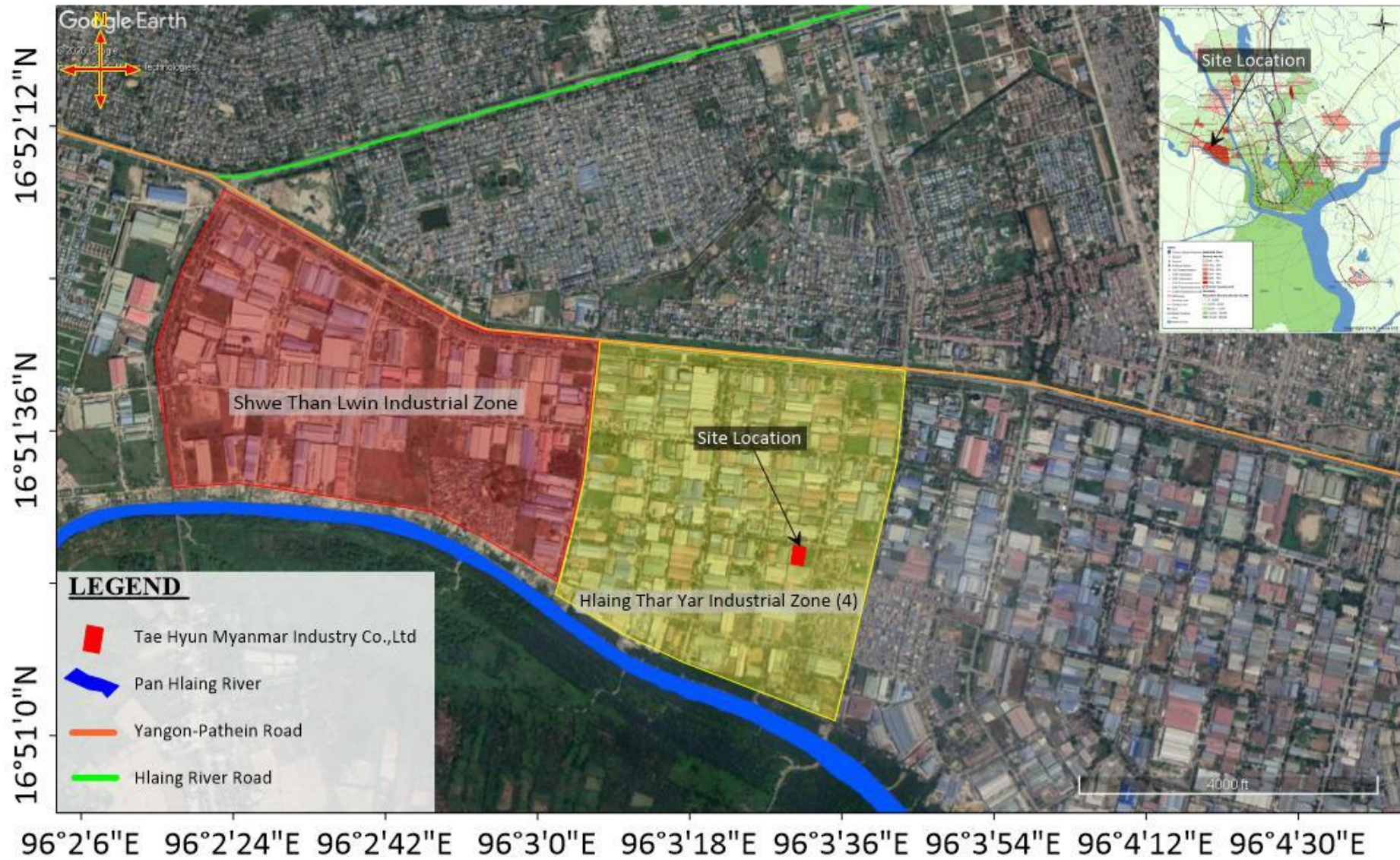


Figure 3-1 Location Map

Environmental Management Plan

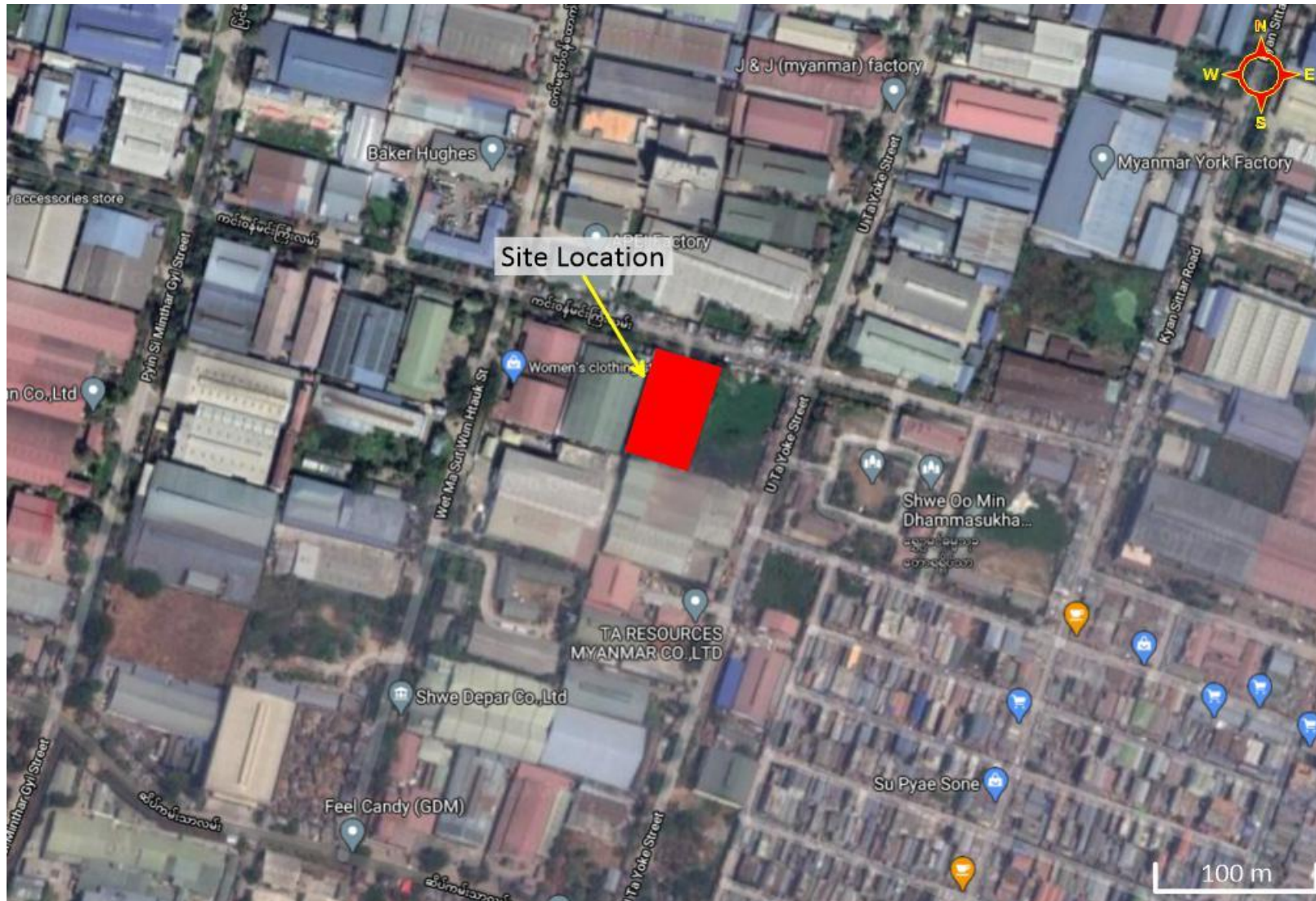
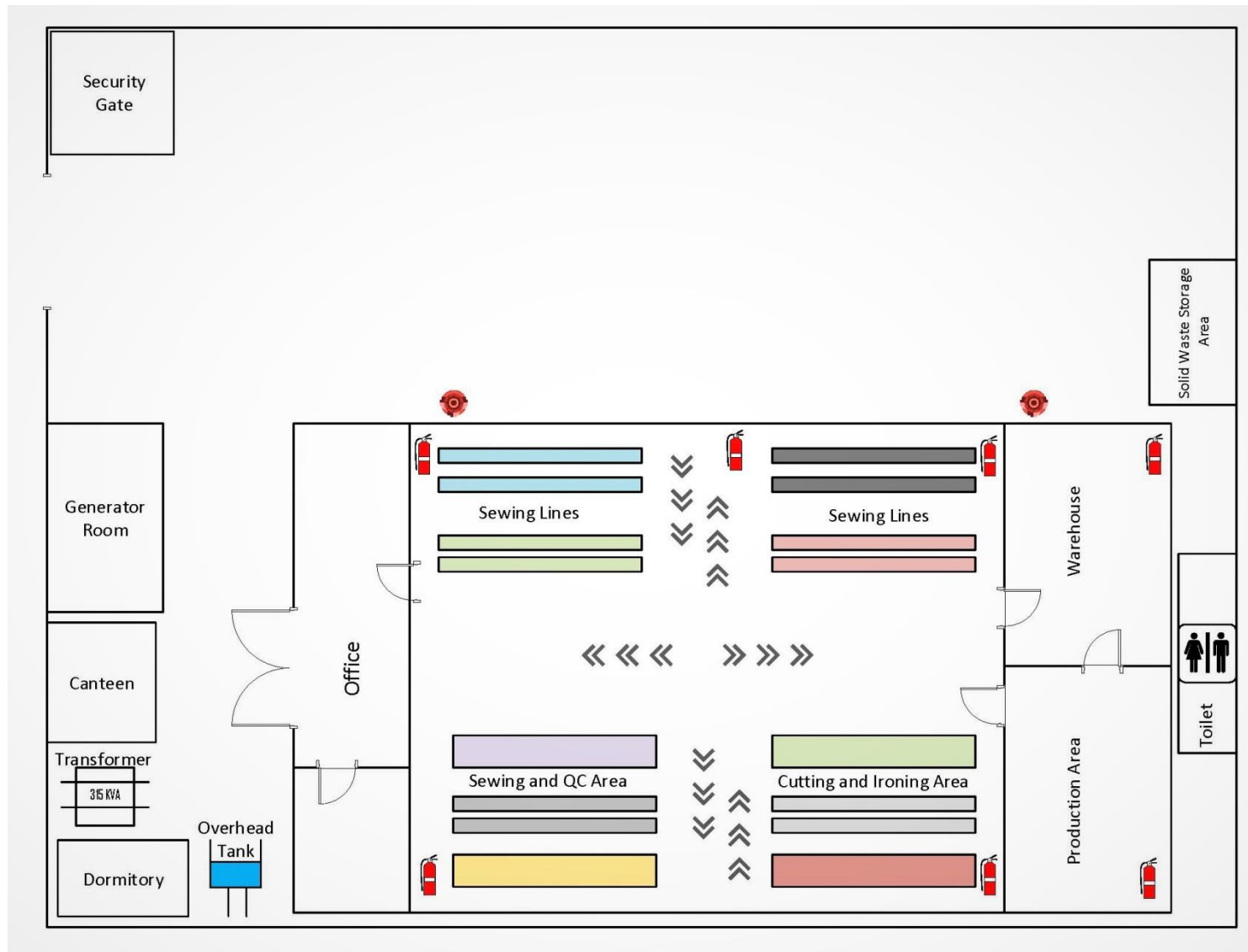


Figure 3-2 Adjacent Location Map

Environmental Management Plan



Figure 3-3 Factory Layout Plan (Aerial Photo)

Environmental Management Plan**Figure 3-4 Factory Layout Drawing**

Environmental Management Plan

3.2. 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, thread, zipper, 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 jacket and cap 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. Steps of production process of proposed jacket and cap factory are described in below.

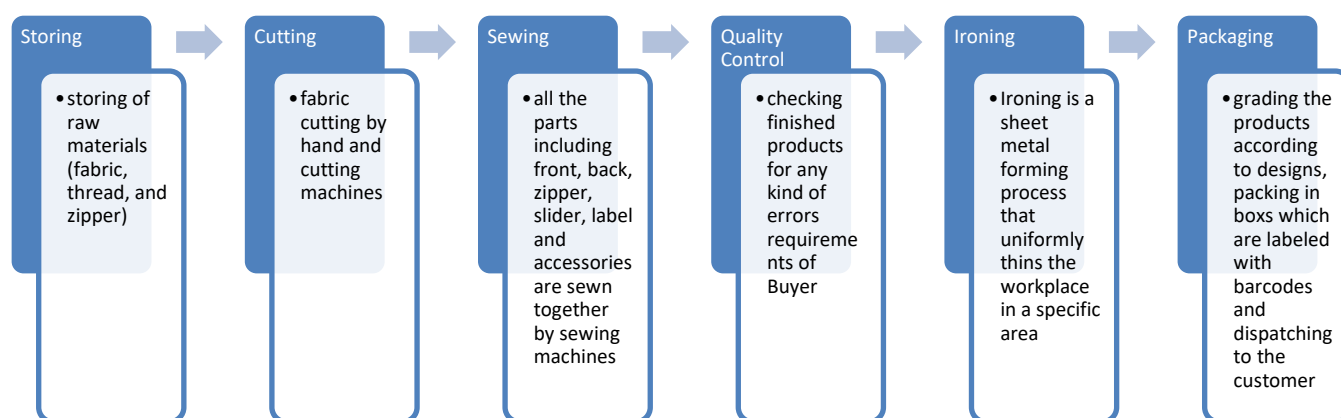


Figure 3-5 Process Flow Diagram

3.2.1. Description of Production Process

The first stage in the manufacturing of wearing apparel (such as jacket and cap) is the cutting and for that pattern, making is the base. Once the marker is made, pattern pieces must be cut out of the specified fabric.

The process of sewing involves fastening of fabrics, leather, furs or similar other flexible materials with the help of needle and threads. Stitching is the process of passing threaded needle in and out of a material to make a specific design pattern.

Quality control (QC) checks for any error. Quality control was done manually.

After completion of QC Process, Ironing is a sheet metal forming process that uniformly thins the workplace in a specific area.

The QC passed units are sent to packing as a final production process. This step sends packed units for distribution to the customers. These packed units are sent to the countries per customer's specification. Packing process was done manually by manpower.

Environmental Management Plan



Store Department



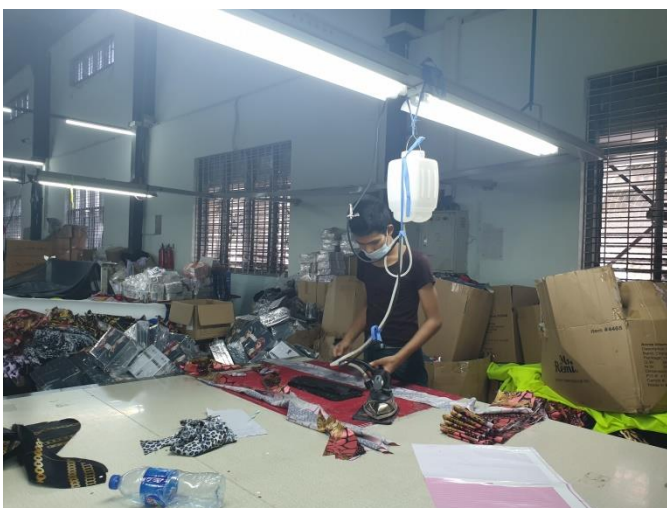
Cutting Department



Sewing Department



QC Department



Ironing Department



Packing Department

Figure 3-6 Production Photos

Environmental Management Plan

3.2.2. Products

The production product is jacket and cap products at the proposed area and the estimated production amount per year for each product may be round about 3800 to 4200 pieces. For the estimation of the production amount per year is shown in the following Table 3-3.

Table 3-3 Annual production rate

No	Particular	Unit	Year 1-3	Year 4-5	Year 6-10	Monthly
I	Production (Pcs)		1,400,000	1,540,000	1,540,000	128,333
1	All Kind of Jacket	Pcs	300,000	330,000	330,000	27,500
2	Knit cap	DZ	300,000	330,000	330,000	27,500
3	Stocking cap	DZ	600,000	660,000	660,000	55,000
4	All Kind of Cap	DZ	200,000	220,000	220,000	18,333



Figure 3-7 Product Photo and Storage Area

Environmental Management Plan

3.3. UTILITIES

3.3.1. Raw Material

The main Raw Materials fabric, interlining, zipper, thread, label, sticker, button etc. are imported from China and carried to the Tae Hyun (Myanmar) Industry Company Limited by the containers. After quantity verification, these raw materials are stored properly in specified area as per their varieties i.e. fabric and polyester 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 3-4.

Table 3-4 List of Annual Raw Materials

No	Particular	Unit	Year 1-3	Year 4-10	Monthly
1.	Fabric	Yard	1,110,000	1,221,000	101,750
2.	Interlining	Yard	420,000	462,000	38,500
3.	Zipper	Pcs	1,500,000	1,650,000	137,500
4.	Thread	Yard	207,000,000	227,700,000	18,975,000
5.	Label	Pcs	14,400,000	15,840,000	1,320,000
6.	Sticker	Pcs	1,200,000	1,320,000	110,000
7.	Tag Pin	Pcs	1,200,000	1,320,000	110,000
8.	Button	Pcs	4,500,000	4,950,000	412,500
9.	Stocking Yarn	Kg	32,000	35,200	2,933
10.	Knit Cap Yarn	Kg	120,000	132,000	11,000



Figure 3-8 Raw Material Storage

Environmental Management Plan

3.3.2. Machinery and Equipment

For the production lines, the categories of machinery lists are divided into two states: Cutting and Stitching/Finishing. For production process, the usage of machinery is for Preparing and Injection. They are imported from China and 224 days running annually. The detail use of machinery for production process is shown in the following Table 3-5.

Table 3-5 Machinery for Production Line

Stage	Description	Unit	HS Code	Quantity
Operation Stage	Squee Machine	Set	8474	3
	Water Hot Press	Set	8479	2
	Sleeve Attach Machine	Set	8422	10
	Single Needle Machine	Set	8452	400
	Two Needle Machine	Set	8452	20
	Overlock Machine	Set	8447	30
	Bartacking Machine	Set	8452	5
	Kansai Special	Set	8452	5
	Button Hole Machine	Set	8452	5
	Button Attach Machine	Set	8452	6
	Snap Machine	Set	8479	10
	Packing Machine	Set	8422	2
	Single Cutting Machine	Set	8208	10
	Zig Zag Machine	Set	8452	3
	Hand Knife Machine	Set	8207	10
	QQ Machine	Set	8205	3
	Thread Winding	Set	7310	5
	Fusion Press Machine	Set	7310	4
	Brand Knife Machine	Set	7310	2
	Press Machine For Finishing	Set	7310	5
	Weight Machine	Set	7310	8
	Pocket Walting	Set	7310	2
	Needle Deductor Machine	Set	8207	2
	Seam Sealing Machine	Set	8205	4
	Generator (300 KVA)	Set	8465	2
	Boiler (Electrical) 18 KW	Set	8414	1
	Spare Parts For Machine	Set	7310	1
	Knitting Cap Machine	Set	7310	20
	Stocking Machine	Set	7310	40
Factory Accessories	Air Compressor	Set	8414	2
	Iron Table	Set	7323	30

Environmental Management Plan

Stage	Description	Unit	HS Code	Quantity
	Boiler Iron	Set	8465	50
	Water Iron	Set	8414	20

3.3.3. Human Resource

Human resource required by foreign experts/technicians and local persons for administrative and production process are about 572 persons which are also described in Table 3-6. Currently there are 110 employees among them there are 22 males and 88 females. Working hour starts from 8:30 am to 5:00 pm. The lunch time is from 11:50 am to 12:30 pm. Ferries are provided to all staff and employee by the company. Foreign experts and technicians stay at dormitory of the factory and the meals for such experts are also provided.

Table 3-6 Employment List

Employee	Number of persons					
	Year 1		Year 2		Year 3-10	
	Local	Foreign	Local	Foreign	Local	Foreign
Factory Manager	1	1	1	1	1	1
Human Resource Manager	1		1		1	
Finance Manager	1		1		1	
Supervisors	15		15		15	
Assistant Supervisors	10		10		10	
Quality Control	20		20		20	
Assistant Quality Control	5		5		5	
Account Staff	2		2		2	
Security	5		5		5	
Driver	2		2		2	
Cleaner	3		3		3	
Skill Worker	399		399		399	
Unskilled Workers	100		100		100	
Fire Safety Officer	1		1		1	
Production Manager		2		1		1
Quality Control Technician		2		1		1
Sampling Technician		2		1		1
Operation Technician		1		1		1
Engineer Machanic		1		1		1
Marketing Manager		1		1		1
Total	565	10	565	7	565	7

Environmental Management Plan**3.3.4. Water Requirement**

Hlaing Thar Yar Industrial Zone (Part-4) has no centralized water supply system and the factory gets water from the tube wells installed inside the factory compound. Before operation of the project, the pumping test was carried out to estimate hydraulic properties of an aquifer system i.e. transmissivity, hydraulic conductivity and storability of aquifer. As per the results of pumping test, tube wells are designed and located for water security of the project operation. The depth of both tube wells is about 54.86 meters (180 feet) and the diameter is 0.1016 meter (4 inches).

During operation, the water will be pumped from tube wells and reserved in an underground tank (9,724 gallons) for toilet and firefighting and an overhead tank (10,860 gallons) with filters. The water usage of proposed project is 1,200 gallons per day and 3,600 gallons per month. By comparing daily water requirement with storage capacity of the tanks, the factory has sufficient water for daily use. (See in Figure 3-9).

Drinking water is provided by purified drinking water and daily demand is 50 numbers of 20-liter bottles. 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 3-9 Water Supply System Photo

Environmental Management Plan

3.3.5. Electricity and Fuel Requirement

The proposed project intended to get required electricity supply form Yangon City Electricity Supply Board (YESB) and distributed by 315 kVA of transformer and another sources of energy 150 kVA generator which also be kept as the emergency generator if normal electricity supply could not provide for the proposed project. Electrical works, materials and equipment are consistent with Myanmar Standards and electrical codes of practice. Annual electricity consumption is 11264 Unit.

Required petrol and diesel for vehicles and generator are purchased from the nearest petrol station. Only diesel is stored in a tank of 150 gallons/ liters beside the generator room. To handle the leakage and spillage of the diesel, an interception with sand is kept under the tank. Annual fuel requirement of the project is shown in Table 3-7.

Table 3-7 Annual fuel requirements

No	Fuel Use	Unit	Year 1	Year 2	Year 3-10
1.	Diesel for Generator	Gallons	1200	1200	1200

**Figure 3-10 Electricity and Fuel Facility****3.3.6. Electric Steam Boiler**

The factory has automatic electric steam boiler with the capacity:0-500 kg/hr is used in ironing process for manufacturing process. Specification of boiler is presented in Table 3-8 and installed photo is shown in Figure 3-11.

Table 3-8 Specification of Boiler

Model No	NBS-FH
Steam Temperature	171°C
Water Tank	20 L
Type	Electric Power (18 kW)
Drum Placement	Vertical Boiler
Voltage	220V/380V

Environmental Management Plan

Rated Working Pressure	0.7 MPa
------------------------	---------



Figure 3-11 Electric Steam Boiler Photo

3.4. FACILITIES

3.4.1. Fire Hazards Protect Facility

Fire extinguishers 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 10,860 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. The plan to install fire alarm system and fire-frightening system are mentioned in Figure 3-12.



Figure 3-12 Firefighting System

Environmental Management Plan

3.4.2. Liquid Waste Control Facility

Water discharge from the factory site will be treated by silts track tank before discharging. 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 maintain to flow storm water (rain water, snow 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 3-13. Besides, the factory plans to use separate wastewater channels, septic type toilet system. Liquid waste from the dining room, canteens and toilet facilities are collected in septic tanks which are attached with sewer treatment plant 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.

3.4.3. 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.



Environmental Management Plan

Figure 3-13 Waste Storage & Management Photo

3.4.4. 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, kitchen and dormitory.



Figure 3-14 Ventilation System Photo

4. 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.

4.1. METHODOLOGY FOR DATA COLLECTION AND ANALYSIS

The followings methodologies are used for Environmental Management Plan (EMP) 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 Hlaing Thar Yar Township, Yangon Region.

4.2. ENVIRONMENTAL BASELINE STUDY

The field observation for determining the environmental baseline of the proposed project area was undertaken during construction 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.

4.2.1. 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 July 17,2020.

The overall conditions of air quality, water quality, soil quality, and noise levels are quoted from the project. The summary of the field survey for overall conditions is shown in Table 4-1.

Table 4-1 Summary of Environmental Survey

Item	Parameter
Air quality	(1) Sulfur dioxide (SO ₂), (2) Carbon monoxide (CO), (3) Nitrogen dioxide (NO ₂), (4) TSP, PM ₁₀ and PM _{2.5}
Water quality	(1) Temperature, (2) Odor, (3) Color, (4) pH, (5) Turbidity, (6) SS, (7) DO, (8) COD, (9) TOC, (10) BOD ₅ , (11) Oil and Grease, (12) Total Coliforms,
Noise level	Indoor sound level (LAeq)
Light Level	Industry light condition (Lux)

Environmental Management Plan

4.2.2. Air Quality

To determine the existing baseline ambient air quality status within the project site on 17 July 2020, 24-hours of construction period air pollutants level, which include dust (PM₁₀ and PM_{2.5}) and gases (CO, CO₂, SO₂, NO₂) were measured at the selected site using the air quality monitoring system. The details of the location of air quality survey points are presented in Table 4-2 and Figure 4-1.

Table 4-2 Location of Air Quality Survey Point

Survey point	Coordinates	Type of survey point	Description of survey point
Air Quality	16°51'23.11"N 96° 3'32.62"E	Project area	Between Kin Wun Min Gyi Street and U Tayoke Street, Hlaing Thar Yar Industrial Zone (Part-4), Hlaing tharyar Township, Yangon.

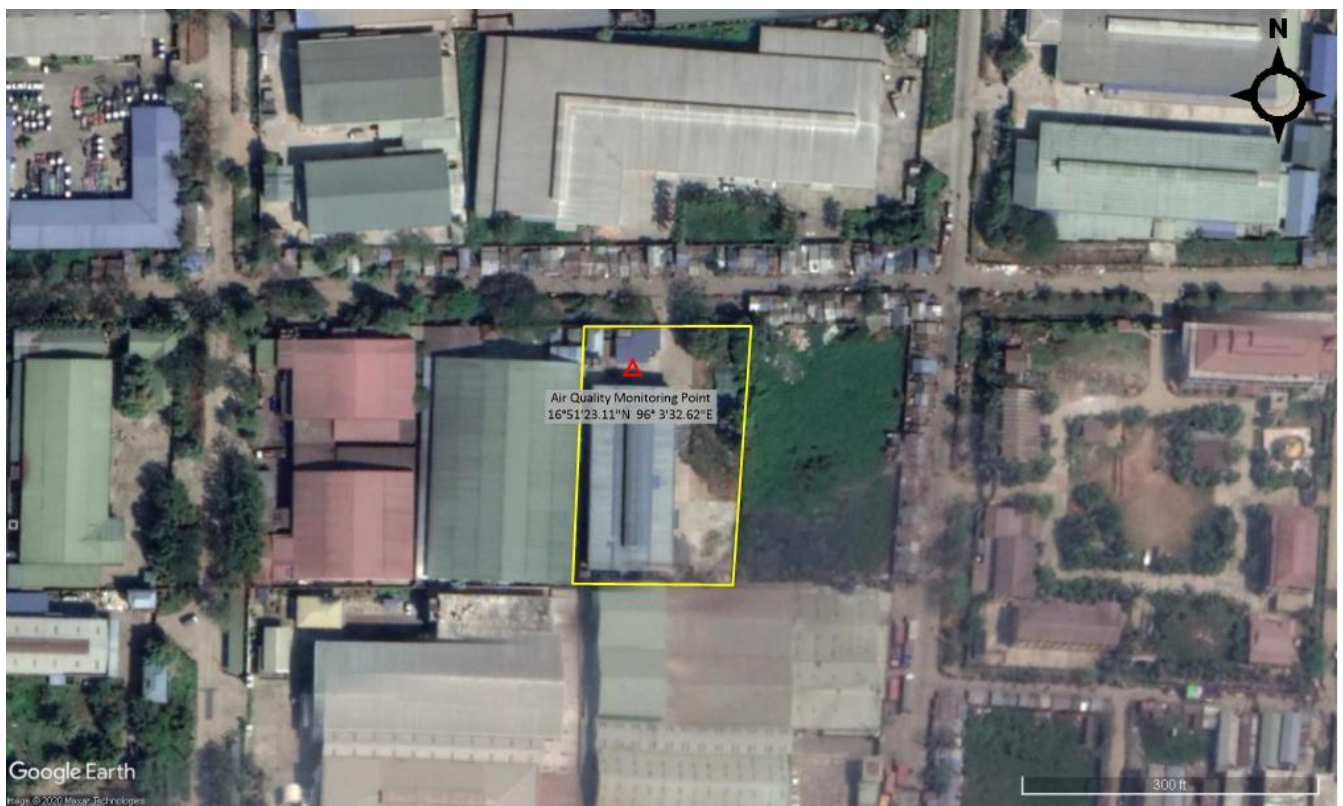


Figure 4-1 Air Quality Monitoring Location

4.2.2.1. Sampling Method

Sampling and analysis of ambient air quality were conducted by referring to the recommendation of the United States Environmental Protection Agency (U.S. EPA). The Air monitor was used to collect ambient air survey data. Sampling rate or air quality data were measured automatically every one minute and directly read and recorded onsite for measured parameters (SO₂, NO₂, PM₁₀, PM_{2.5}) as shown in Table 4-3. Sampling pump was operated at 2 L/min. Different analysis methods are integrated in the instrument, such as Particulates 90o Infrared Light Scattering for particulate matters (PM₁₀, PM_{2.5}) and electrochemical sensors for toxic gases (NO₂, SO₂).

Environmental Management Plan

Table 4-3 Air Quality Sampling and Analysis Method

Parameter	Analysis method
Nitrogen dioxide (NO ₂)	On site reading
Particulate Matter (PM ₁₀)	On site reading
Particulate Matter (PM _{2.5})	On site reading
Sulphur dioxide (SO ₂)	On site reading

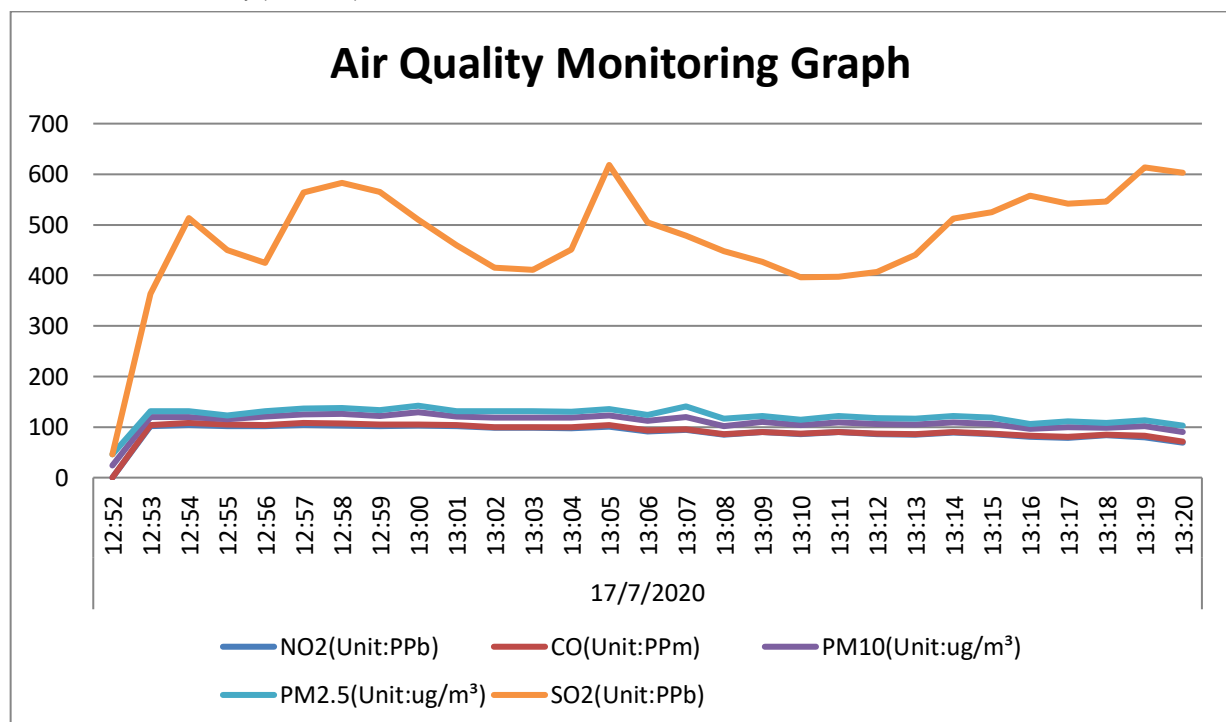
4.2.2.2. Survey Result

The air quality survey results obtained every minute at each survey site were combined to make daily average values (24 hours) for further evaluation and comparison with corresponding standard values. Results of ambient air quality measured at project area are presented in Table 4-4 . It is obvious that the concentrations of NO₂, SO₂, and especially PM_{2.5} and PM₁₀ were comparing with the tentative target value, the concentration of all pollutants are immanent with the standard. During the, concentrations of NO₂, SO₂, PM_{2.5} and PM₁₀ were exceeded the standard value.

Table 4-4 Ambient Air Quality in Project Area

No.	Parameter	Unit	Period	Result	Standard	Remark
1	PM 10	(µg/m ³)	24 hours	18.1	50	Good
2	PM 2.5	(µg/m ³)	24 hours	12.2	25	Normal
3	CO	(µg/m ³)	8 hours	1.825	10	Good
4	NO ₂	(µg/m ³)	1 hour	92.7	200	Good
5	SO ₂	(µg/m ³)	10 minutes	365.8	500	Good

*National Environmental Quality (Emission) Guideline

**Figure 4-2 Air Quality Monitoring Graph**

Environmental Management Plan



Figure 4-3 Air Quality Monitoring Photo

4.2.3. Indoor temperature and humidity

In July 17, 2020, the weather condition of proposed project is 36.7 °C average temperature and 84.9 % average humidity.

Table 4-5 Relative humidity and temperature measure at factory

Date and Time	Description	Result value	Environmental parameter air station guideline
17 July 2020 (1:00 pm to 4:00 pm)	Relative Humidity RH %	84.9 (%)	Present condition
	Temperature	36.7 °C	Present condition



Figure 4-4 Temperature and Humidity Measure Photo

4.2.4. Noise Level

The Noise level was measured by using Digital Sound Level Meter for working hours on 17 July 2020. The average noise level in the project site area is presented in Table 4-6 compared with NEQ guideline. However, according to the Noise source monitoring at operation area (inside the

Environmental Management Plan

production sector) of noise level is exceeding the acceptable level of National Environmental Quality (Emission) Guideline. ^[4]

Table 4-6 Location of Noise Level Survey Point

Coordinates	Type of survey point	Measurement Result	NEQ Guideline	Description of survey point
16°51'22.46"N 96° 3'32.42"E	Operation area	73.64 dBA	70 dBA	Between Kin Wun Min Gyi Street and U Tayoke Street, Hlaing Thar Yar Industrial Zone (Part-4), Hlaing tharyar Township, Yangon.

4.2.4.1. 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 levels measured on both weekday and weekend at operation area were found to be lower than the tentative target value. It is obvious that noise levels measured at the same point on weekday were higher than those on weekend.

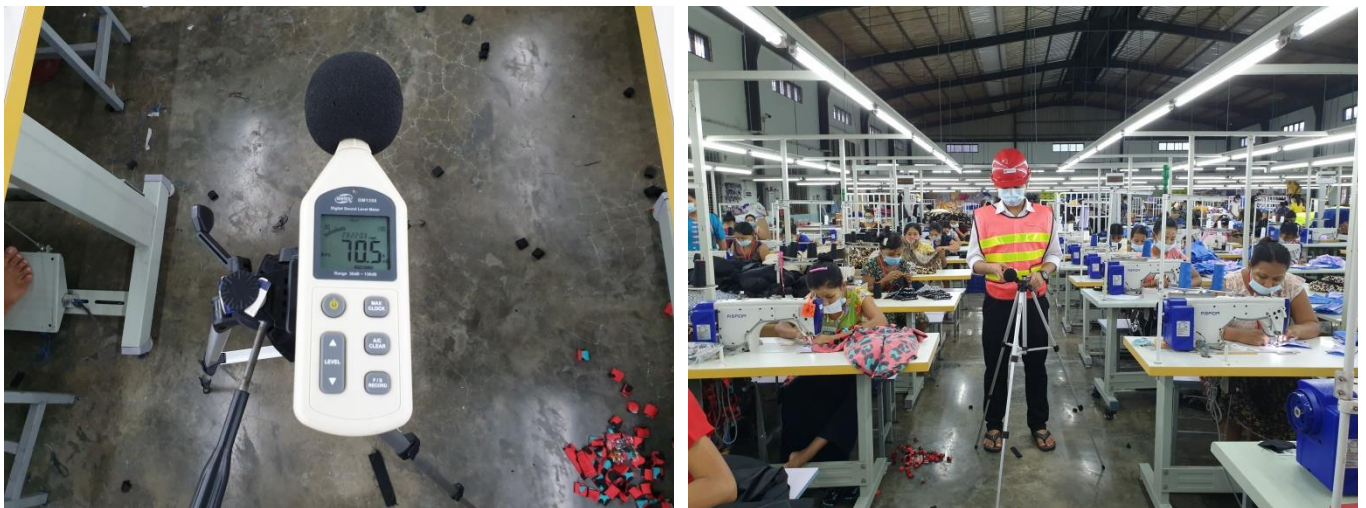


Figure 4-5 Noise Level Measurement Photo

4.2.5. Light

Activities of the workers in the jacket and cap factory are highly dependent on the quality of light. Therefore, the consultant conducted the light measurement in the jacket and cap factory is presented in Table 4-8. The illustrates the recommended illumination and limiting glare index applicable to typical works (fairly severe to very severe tasks) in jacket and cap factory is provided in Table 4-7.

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 jacket and cap factory, like the inspection points (on-floor and in stores), sampling, and the finishing section, as these areas are crucial for the quality of the production. The tasks involved in these areas

Environmental Management Plan

require high levels of worker focus and accurate lighting to ensure 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 in good condition and at the acceptable level of standard.

Table 4-7 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 4-6 Light quality measurement

Table 4-8 Result of light measurement in TAE HYUN (MYANMAR) INDUSTRY COMPANY LIMITED

No	Location	Measure value (Lux)	Standard*
1	Warehouse	295	200
2	Cutting Line	1245	900
3	Sewing Line	1159	600
4	QC	1269	900
5	Ironing	1059	600

Environmental Management Plan

No	Location	Measure value (Lux)	Standard*
6	Packing	1153	2000

* 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).

According to the monitoring results, Tae Hyun (Myanmar) Industry Company Limited light level is a little bit higher than the NEQ guideline that's why some places need to reduce the light level and ought to put on the electricity bulb more over the higher places. On the other hand, some places are a bit lower than the NEQ guideline that is why which need to change like a more powerful light bulb in that light level lower places. In this way are able to adjust the light pollution of this factory.

4.3. PHYSICAL COMPONENT (SECONDARY DATA)

4.3.1. Topography

Yangon area is the largest; most populated and urbanized area in Myanmar. There are thirty-three townships in Yangon city where 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 Hlaing Thar Yar Industrial Zone (Part-4), Hlaing Thar Yar Township, and its topographic condition is flat. The proposed project site is primarily agricultural land, but now is initiated into the industrial zone area.

4.3.2. Geology

In Yangon area mainly composed of Pegu Group, Irrawaddy Formation and Alluvium. Alluvial deposits (Pleistocene 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 4-7.

Environmental Management Plan

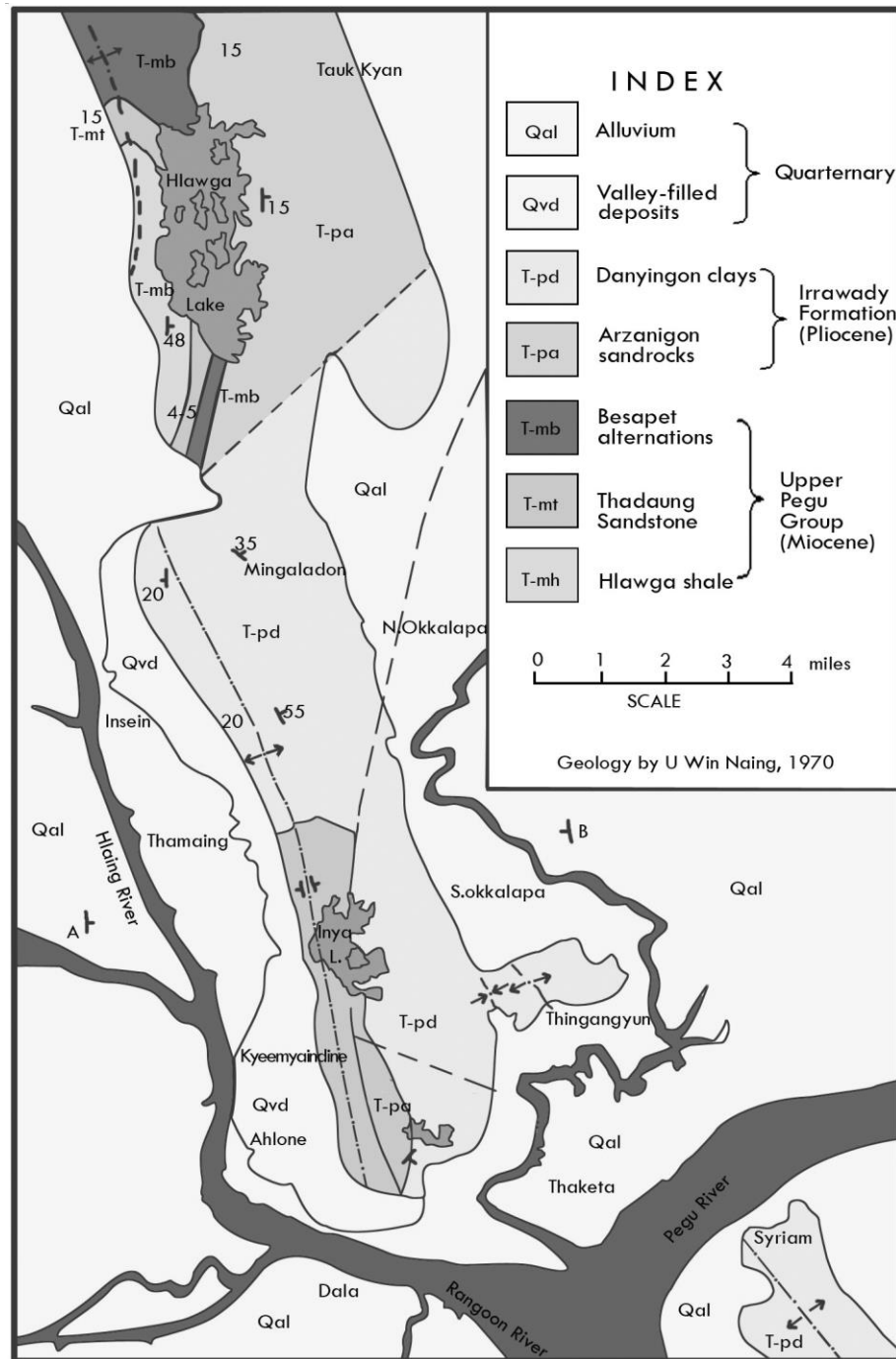


Figure 4-7 Geological Map of Yangon Region

4.3.3. 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).

Environmental Management Plan

4.3.4. 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]

Environmental Management Plan

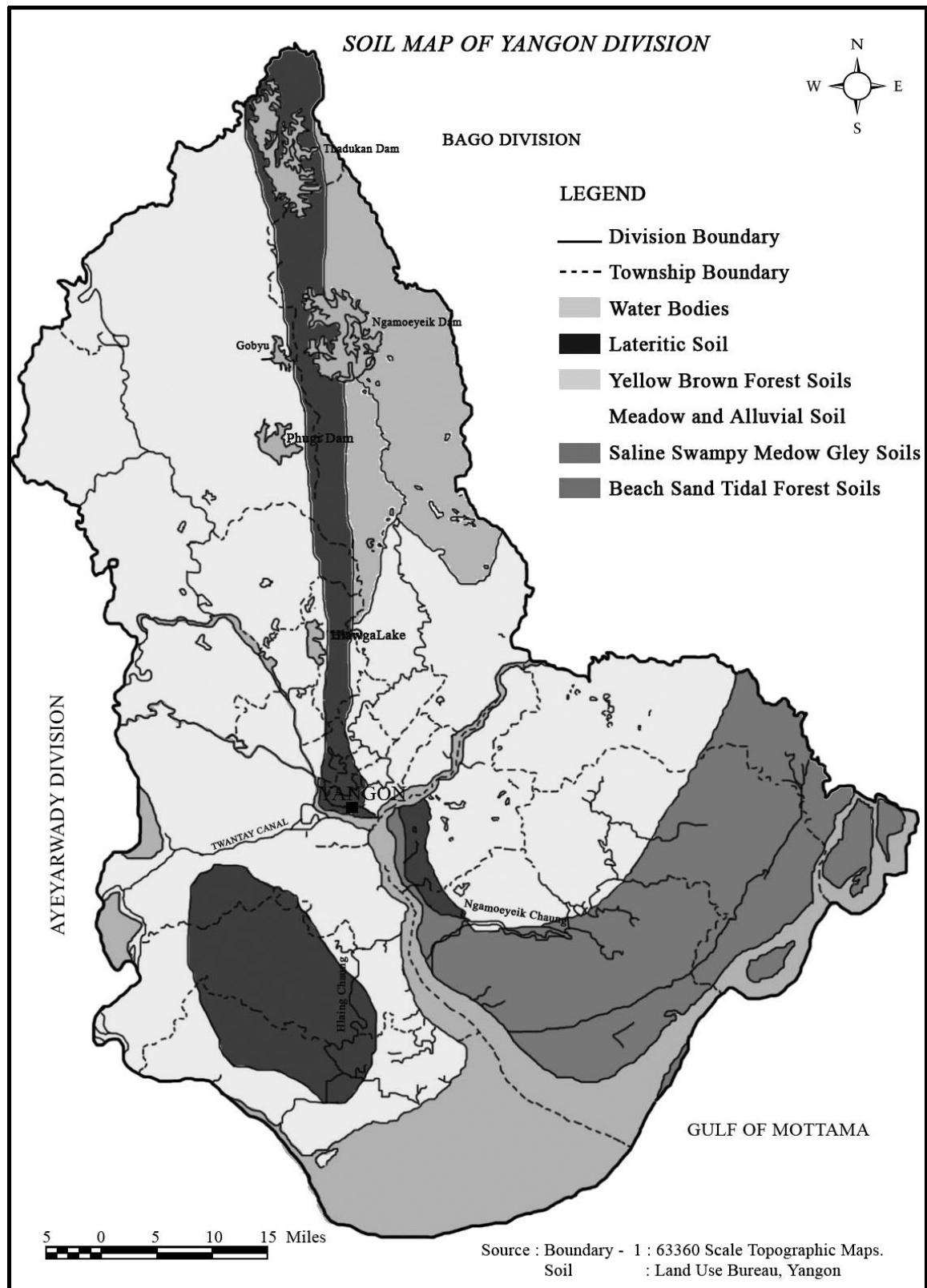


Figure 4-8 Soil Map of Yangon (Source: Land use of Bureau of Yangon)

Environmental Management Plan

4.3.5. 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 Pan Hlaing River which flows west to east and later joins into the Hlaing River in the east. The Yangon River (also known as Hlaing River) is formed by the confluence of the Pegu and Myitmaka rivers and flows into the Gulf of Martaban which is part of the larger Andaman Sea. The river flows along a 40 km stretch flowing from southern Myanmar as an outlet of the Ayeyarwady River into the Ayeyarwady delta. 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.

4.3.6. Climate and Meteorology**4.3.6.1. 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]

Environmental Management Plan

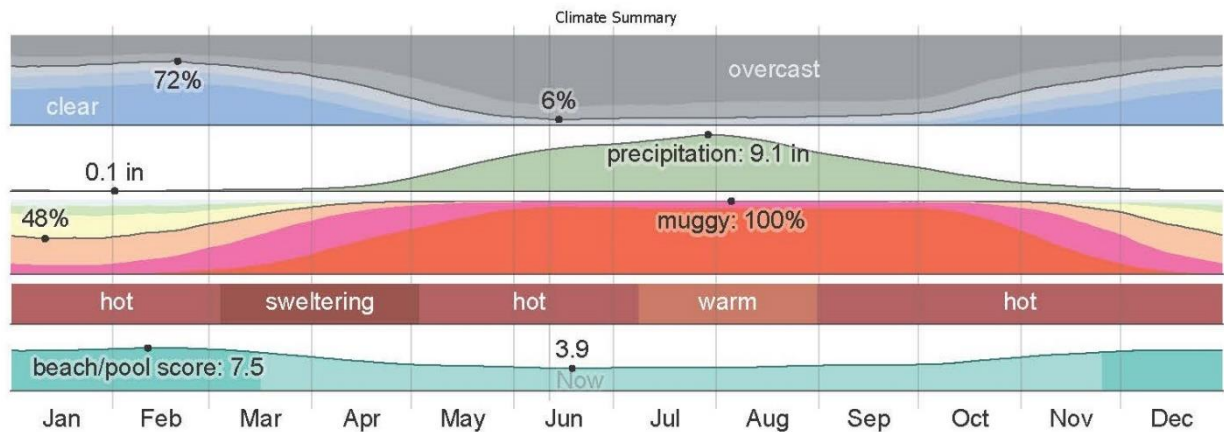


Figure 4-9 Climate Summary of Yangon Region

4.3.6.2. 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.

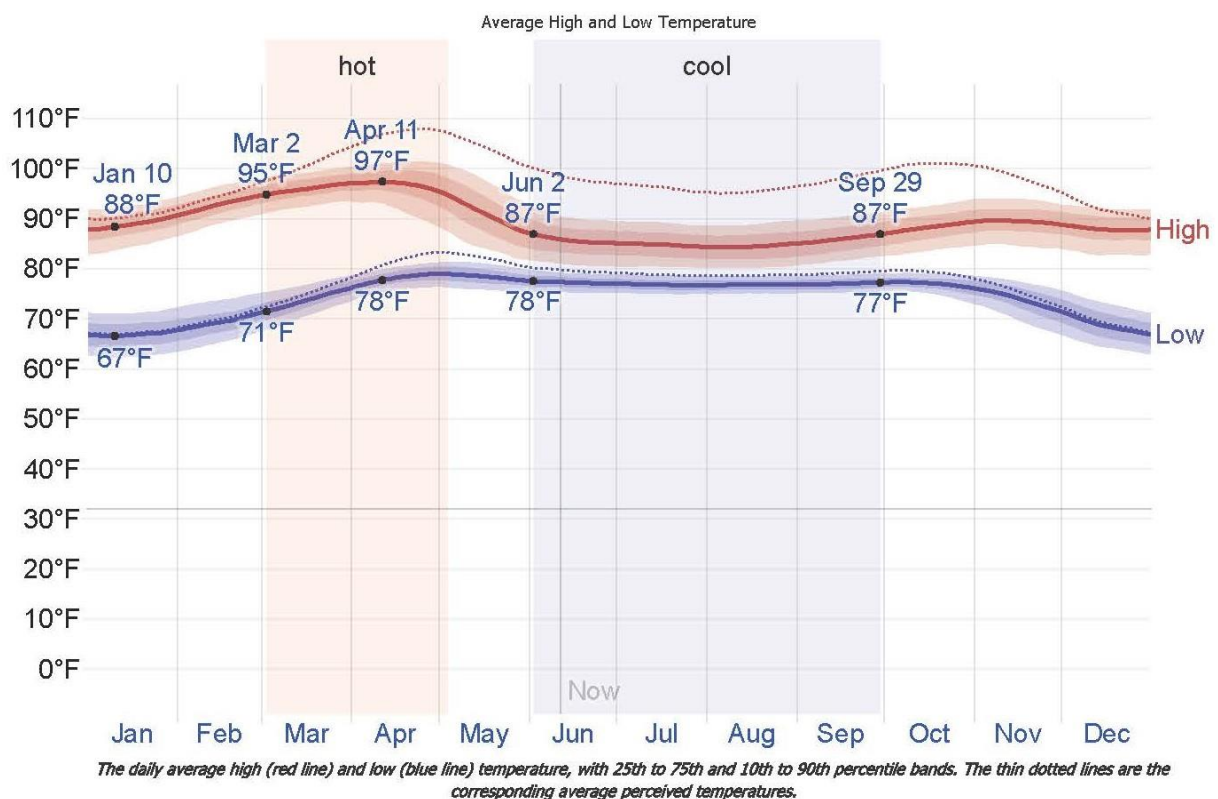


Figure 4-10 Average Temperature of Yangon Region

Environmental Management Plan

4.3.6.3. 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.

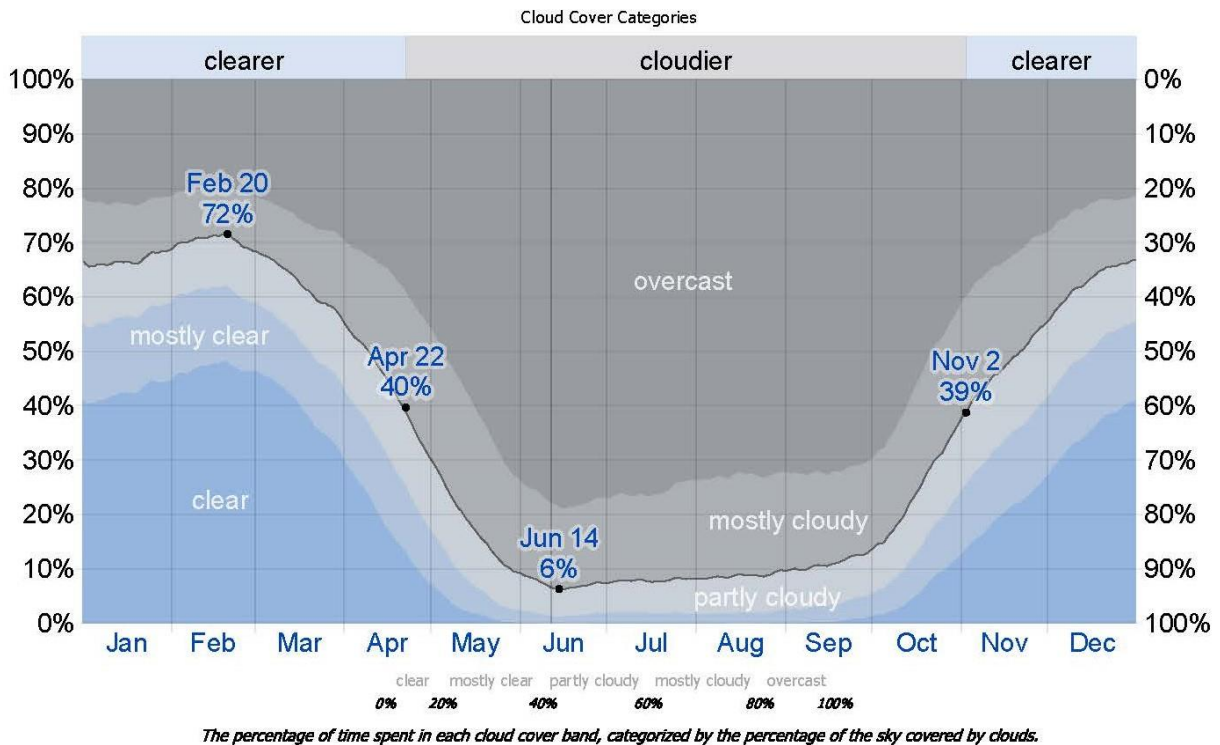


Figure 4-11 Cloud Cover Categories

4.3.6.4. 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 around 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.

Environmental Management Plan

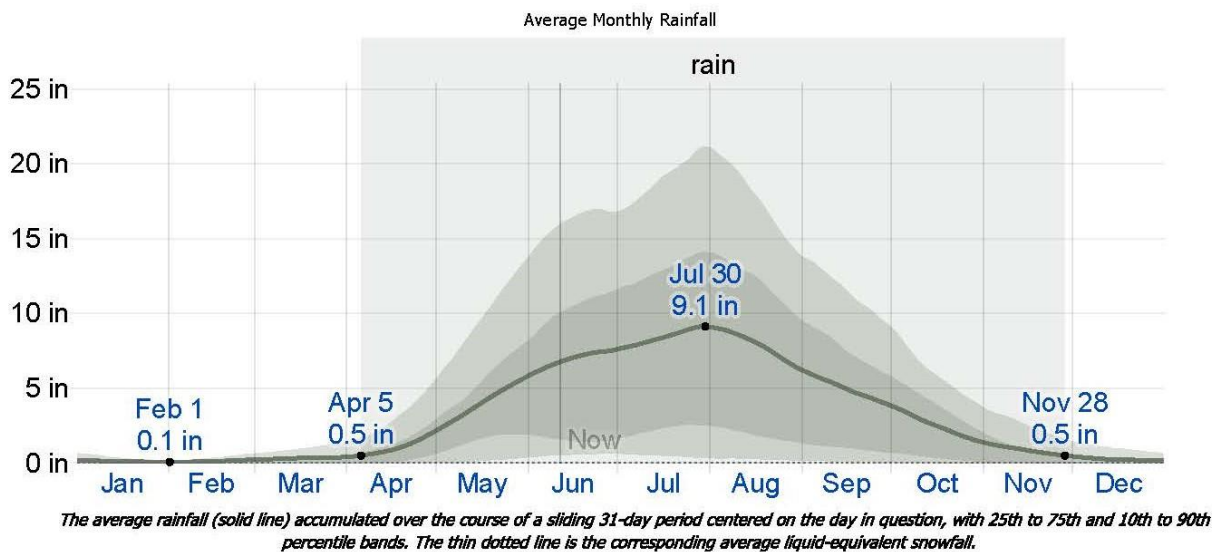


Figure 4-12 Average Monthly Rainfall at Yangon Region

Table 4-9 Annual rainfall and temperature

Year	Rainfall		Temperature	
	Raining day	Rainfall value (Inches)	Summer season Max (°C)	Winter season Min (°C)
2017-2018	102	105.4	41°C	27°C
2018-2019	88	84.8	40°C	26°C

Source: Department of Administrative Hlaing Thar Yar Township, Regional data (www.gad.gov.mm.com)

4.3.6.5. 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.

Environmental Management Plan

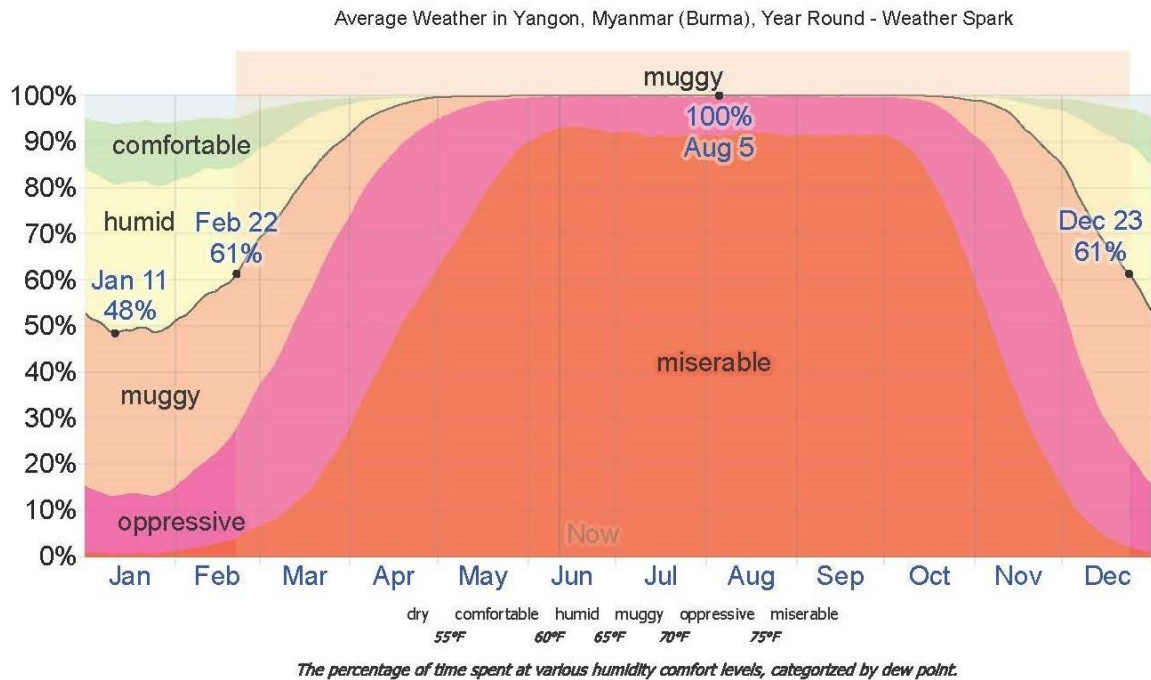


Figure 4-13 Humidity of Yangon

4.3.6.6. 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.

Environmental Management Plan

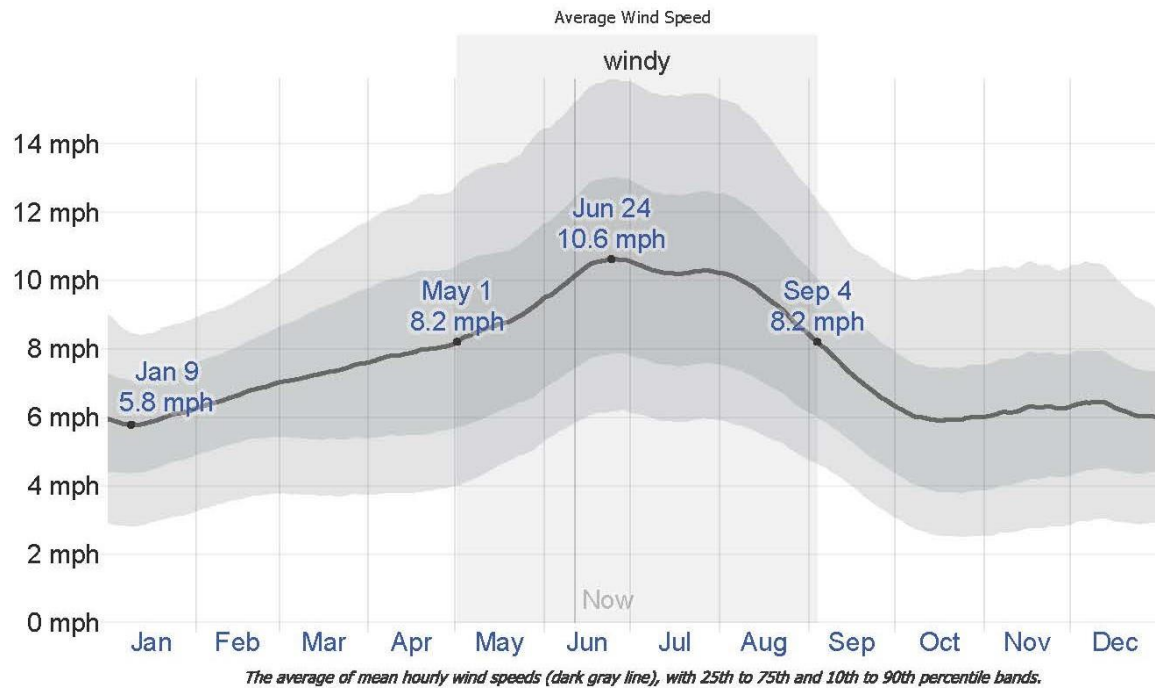


Figure 4-14 Average Wind Speed in Yangon

4.4. 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 Hlaing Thar Yar 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	The nearest river is Pan Hlaing river. Fresh water fish species are residing in the river
Wildlife	Non existence
Forests	Non existence
Rare or endangered species	Non existence
Protected areas	Non existence
Coastal resources	A few mangrove species observed at the river bank of Pan Hlaing river

Environmental Management Plan

4.5. SOCIO-ECONOMIC COMPONENT

4.5.1. Population

Tae Hyun (Myanmar) Industry Company Limited is located across Hlaing Thar Yar Township in Yangon Region. In 2019, the population of Hlaing Thar Yar Township is about 440,949 people as present in Table 4-10. ^[1]

Table 4-10 Population of Males and Females at Hlaing Thar Yar Township (2019)

Item	Over 18 year			Under 18 year			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Urban	110193	125186	235379	49964	55193	105157	160157	180379	340536
Rural	34642	32707	67349	16488	16576	33065	51130	49283	100413
Total	144835	157893	302728	66452	71769	138221	211287	229662	440949

Source: Department of Administrative Hlaing Thar Yar Township, Regional data (www.gad.gov.mm.com)

4.5.2. Religion

The different kinds of religion present in Hlaing Thar Yar Township are shown in Table 4-11. More than 90% of the people living in the township are Buddhists. ^[1]

Table 4-11 Religion in Hlaing Thar Yar Township (2019)

Township	Buddhist	Christian	Hindu	Muslim	Total
Hlaing Thar Yar	422529	6400	8320	3700	440949

Source: Department of Administrative Hlaing Thar Yar Township, Regional data (www.gad.gov.mm.com)

4.5.3. Local Economy

Among regional towns, Hlaing Thar Yar 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

Environmental Management Plan

4.5.4. Public Infrastructure and Access**4.5.4.1. Communication and Transportation**

Major transportation route in Hlaing Thar Yar Township are railway, port, and car road as presented in Table 4-12. ^[1]

Table 4-12 Transportation Route

Categories	Township		Miles
	From	to	
Sail	Pan Hlaing River and Hlaing confluence	Ngwe Pin Lae Industrial	8
Bus line (61,23,68,16,6,69,17,74,20,52,53,54,67) City Bus	WYTU	Downtown area	
Car (Yangon - Patheingyi road)	King Ba Yin Naung bridge	Mya Sein yaung Stream	5.4
Car (Yangon – Nyaung U road)	Aung zaya Bridge	BOC traffic circle	3.2
Car (King Anawattar Road)	Shwe Pyi Thar Bridge	Thamakone Traffic circle	4.6

Source: Department of Administrative Hlaing Thar Yar Township, Regional data (www.gad.gov.mm.com)

4.5.4.2. Electricity

The electricity demand of Hlaing Thar Yar Township is higher and higher due to the normally increased in population and infrastructure. ^[1]

4.5.4.3. Education

Location of major schools were 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), West Yangon Technological University, in the Hlaing Thar Yar Township. The name and the located village tract/ward of schools are described in Table 4-10. ^[1]

Table 4-13 List of major school in Hlaing Thar Yar Township

No.	Name of School	Location
1.	West Yangon Technological University	Outside Padan Village Tract
2.	BEHS (1)	NO (2) ward
3.	BEHS (2)	No (12) ward
4.	BEHS (3)	NO (17). Ward
5.	BEHS (4)	NO (5) ward
6.	BEHS (5)	NO (7) ward
7.	BEHS (6)	Yae Okken
8.	BEHS (7)	NO (16) ward
9.	BEHS (8)	NO (20) ward

Environmental Management Plan

No.	Name of School	Location
10.	BEMS (Branch) (1)	NO (6). Ward
11.	BEMS (Branch) (2)	Nyaung Village Tract
12.	BEMS (Branch) (3)	Dine Su, Nyaung Village
13.	BEMS (Branch) (4)	NO (6) ward
14.	BEMS (Branch) (5)	NO (1) ward
15.	BEMS (Branch) (6)	NO (10) ward
16.	BEMS (Branch) (7)	Outside Padan Village Tract
17.	BEMS (Branch) (8)	NO (18) ward
18.	BEMS (Branch) (9)	Shwe Lin Pan Village Tract
19.	BEMS (Branch) (10)	NO (9). Ward
20.	BEMS (Branch) (11)	NO (12). Ward
21.	BEMS (Branch) (12)	NO (18). Ward
22.	BEMS (Branch) (13)	NO (15). Ward
23.	BEMS (Branch) (14)	NO (14). Ward
24.	BEMS (Branch) (15)	NO (13). Ward
25.	BEMS (Branch) (16)	NO (11). Ward
26.	BEMS (Branch) (17)	NO (7). Ward
27.	BEMS (Branch) (18)	NO (11). Ward
28.	BEPS (1 to 32)	Hlaing Thar Yar
29.	Pre School (1 to 6)	Hlaing Thar Yar

Source: Department of Administrative Hlaing Thar Yar Township, Regional data (www.gad.gov.mm.com)

4.5.4.4. Health Status

The diseases of high prevalence reported in 2019 are Tuberculosis (TB), followed by Acute Respiratory Infection (ARI), Diarrhea, TB and snakebites. With reference to the Township Health Profile 2019 of Hlaing Thar Yar Township, no accidental work injuries reported to the township hospital in 2013. The common diseases are shown in Table 4-14.

Table 4-14 Common Diseases in the Hlaing Thar Yar Township

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

Environmental Management Plan**Table 4-15 Lists of Hospital in Hlaing Thar Yar Township**

Hospital Name	Beds/Services	Responsible
Township Hospital	200	Government
Cottage Hospital (Shwe Lin Pan)	16	Government
Pan Hlaing	95	Private
Tun Foundation	20	Private
Total	331	-

Source: Department of Administrative Hlaing Thar Yar, Regional data (www.gad.gov.mm.com)

4.6. CULTURAL AND VISUAL COMPONENTS

Hlaing Thar Yar 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.

5. ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

5.1. 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.

5.1.1. Positive Impact

During the project implementation, 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 Hlaing Thar Yar Industrial Zone (Part-4), there may have business opportunities to local people. Local people can have a market by selling foods, snacks and drinks nearby the factory.

5.1.2. Negative Impact

The following Figure 5-1 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.

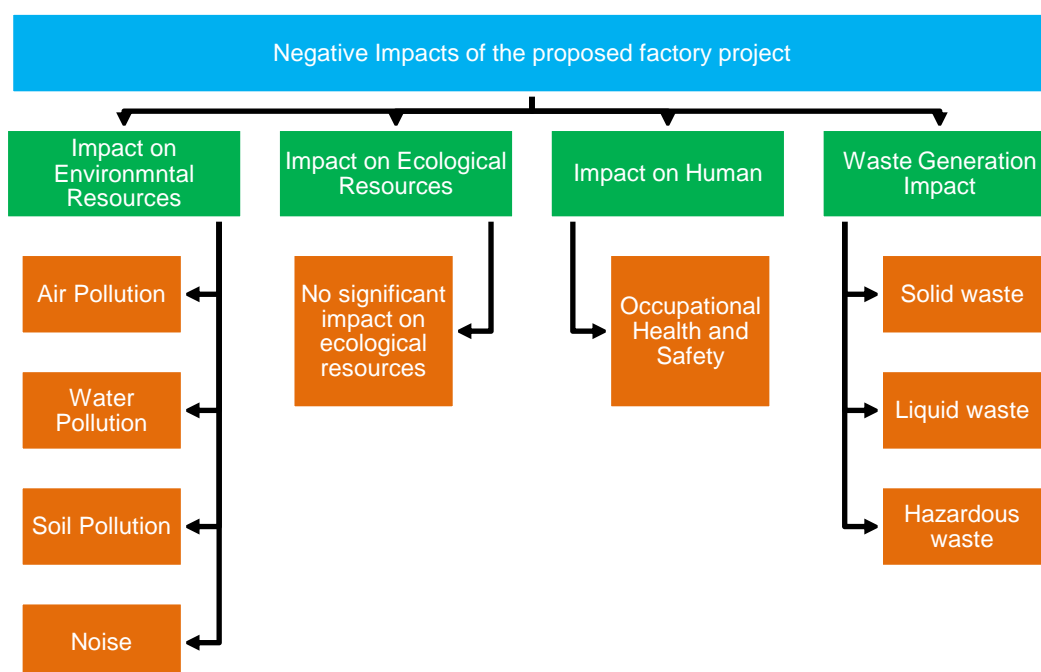


Figure 5-1 Potential Negative Impact Affect from Proposed Project

Environmental Management Plan

5.2. 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 5-1.

Table 5-1 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

Environmental Management Plan

5.3. POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION AND 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 25 years. The term of the Lease shall be initial 25 years commencing from the date of signing of the Lease Agreement between Local owner and Tae Hyun (Myanmar) Industry Company Limited. for proposed project site for 0.977 acres of land and initial five years and extendable ten years 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.

Environmental Management Plan

5.4. SIGNIFICANT IMPACTS OF PROJECT ACTIVITY AND MITIGATION MEASURE

The project activities, their impacts and significance of impact are provided in Table 5-2.

Table 5-2 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	Dust and GHGs emission from vehicles used for transporting raw materials and final products Emission from emergency diesel generator and vehicle movement	3	4	2	4	36	Moderate	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.	To control air pollution, the vehicles, generators and machineries have to check and maintain monthly. The factory uses chimney for generator through which the flue gases are emitted for reducing the impact of stack emission on environment. Ensuring vehicles, compressor and generator are well maintained.
Water	Production process	1	4	1	1	6	Insignificant	The factory not generated wastewater from production process on CMP basic	No Mitigation Measure
Soil	Engine oil leaks, spills at diesel storage and during fuel refueling.	1	4	1	1	6	Insignificant	The factory compound area was paved with concrete and hence, contamination due to the oil spillage at this area is insignificant.	No Mitigation Measure
Noise and Vibration	Generating noise from the production machinery	1	4	1	1	6	Insignificant	The factory not operate heavy machinery the major noise source of CMP basic operation activities such as cutting, stitching/finishing and packaging by respective machines. There is	No Mitigation Measure

Environmental Management Plan

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
								insignificant impact on surrounding environment	
Impact on Ecological Resources									
Flora and fauna on terrestrial and aquatic life	Operation of the jacket and cap factory	1	4	1	1	6	Insignificant	Not Significant Impact on Ecological Resources	No Mitigation Measure
Impact on Human									
Fire	Poor electrical installations Waste disposed area raw materials and chemical storage	3	5	2	4	40	Moderate	Serious damage to property and even injury and death	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	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	Accident in workplace (physical injuries or even death) can occur during operation.	First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. Proposed project provided three first aid kits for health safety. According to the observed light intensity values, the proponent provides sufficient

Environmental Management Plan

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									<p>lighting for workers for safe working and reducing optical problems of the workers.</p> <p>Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department as an emergency.</p> <p>To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.</p> <p>Post the emergency ph no. on the visible of factory workers</p>
Health	<p>Influx of people</p> <p>Noise from the generating of the emergency generators</p>	2	4	1	2	14	Very Low	<p>Change in demographic structure, new diseases form immigrant workers</p> <p>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</p>	<p>Manage the drainage systems of the factory to prevent health risk of the workers.</p> <p>In proposed project, the factory drainage is disposed in separated tank and which flows to municipal drainage</p> <p>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</p>
Waste Generation Impact									
Solid Waste	<p>Residual pieces of fabric scraps from the production lines</p> <p>Waste from packaging materials</p> <p>Waste from kitchen,</p>	3	4	1	4	32	Moderate	<p>Surrounding environmental pollution and soil contamination</p>	<p>Provides separate garbage bins at each building. such as plastic, paper and cans. In proposed project, 5 small bins are provided in operation area.</p> <p>All of the solid wastes will be collected separately in garbage based on their</p>

Environmental Management Plan

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
	dormitory and office.								types and stored in relevant separated waste storage area Final wastes should be disposed by using YCDC's service.
Liquid Waste	Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory.	2	4	2	2	16	Low	Contamination of soil, surface water, ground water	Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous Was	Used oil and lubricant discharged from the maintenance of vehicles and machines.	2	4	1	2	14	Very Low	Reduce the risk of contamination from fuels, oils and hazardous wastes Response effectively to incident and accident	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)

Table 5-3 Evaluation and Predication of Significant Impacts and Mitigation Measure on Decommissioning Phase

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	S			
Air pollution	Demolish of buildings and related materials	3	1	1	4	20	Low	Emissions of particulate matters and carbon dioxide	Spray water twice a day Cover mesh trap around the

Environmental Management Plan

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	S			
	Transportation of demolished materials							gases into the air	decommission area Install shading net about 2 meters above temporary fence of decommission area Carry broken material with cover by canvas.
Water pollution	Sewage form decommissioning workers Demolition machinery equipment	3	1	1	3	15	Low	Contamination of surface water and ground water	Systematically demolish the septic tanks.
Soil Contamination	Demolish of buildings and related materials Transportation of demolished materials	3	1	1	3	15	Low	Contamination of soil	Manage the spillage of oil and diesel and sewage.
Noise Pollution and Vibration	Decommission activities Transportation of demolished materials	3	1	1	3	15	Low	Noise pollution to the surrounding	Carry out the activities during day time. Maintain the machines and vehicles to reduce noise pollution. Provide the ear plugs to the workers.
Waste disposal	Demolished debris such as bricks, concrete materials	2	1	1	3	12	Very Low	Dumping to the surrounding environment	Recyclable materials and dispose to the define areas.
Hazardous waste	Used lubricants from decommissioning vehicles and machines	2	1	1	3	12	Very Low	Spillage of lubricant	Manage the disposal way of hazardous waste.
Occupational Health and Safety (Accidents, Injuries)	Decommissioning activities Transportation of demolished materials	3	1	2	3	18	Low	Injuries and accidents	Provide protective fencing or demarcation with tape at the boundaries of dangerous / hazardous zone and the appropriate warning signs, marking and safety signs and installation of the lost time injury notice board.

Environmental Management Plan

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	S			
									<p>Clean up excessive waste debris and liquid spills regularly.</p> <p>Use the third-party expert assisted by trained personnel to identify and remove hazardous materials.</p>

6. ENVIRONMENTAL MANAGEMENT PLAN

6.1. ENVIRONMENTAL MANAGEMENT SYSTEM

An Environment 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.

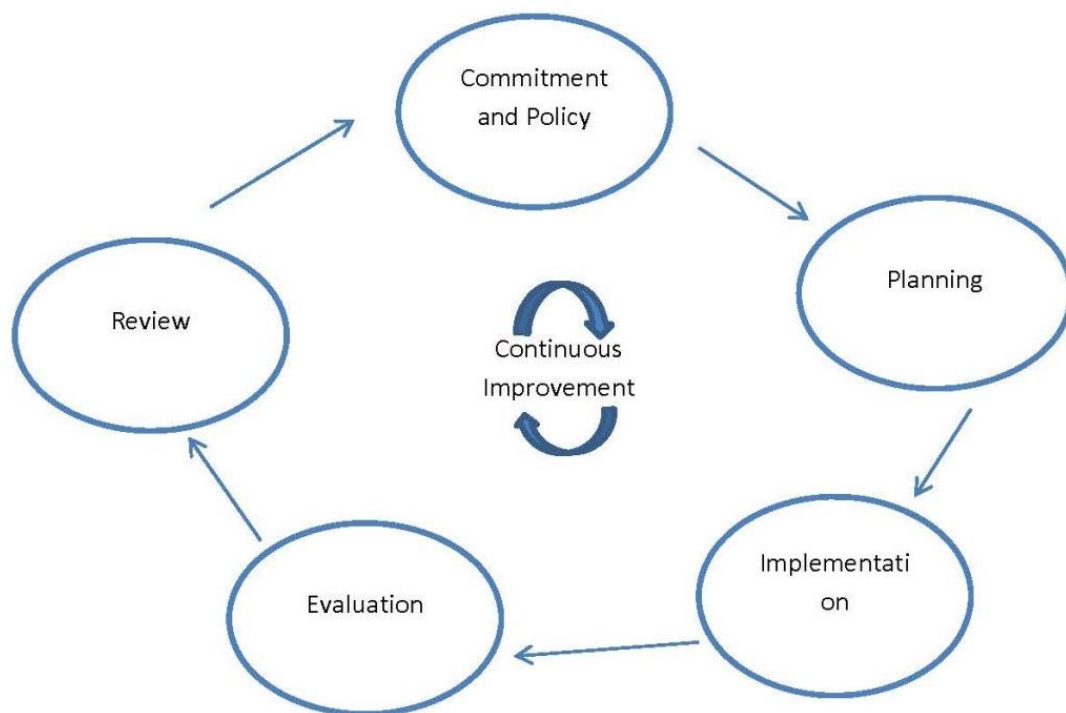


Figure 6-1 Environmental Management System

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

Environmental Management Plan

- **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.

6.1.1. Institutional Requirement

Tae Hyun (Myanmar) Industry Company Limited will 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 EMP and Environmental Monitoring Plan (EMP) as well as coordination with local authorities and the nearby communities. The HSE Team also makes regular review of EMP to cover all potential impacts, amendments and modifications.

6.1.2. Responsibilities of the EMP

In order to ensure the sound development and effective implementation of the EMP, 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 EMP:

Tae Hyun (Myanmar) Industry 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 EMP are met. The implementation of Environmental Management

Environmental Management Plan

Plan (EMP) process will prepare and follow up by appointed persons for health, safety, and environmental management under the instruction of management team of Tae Hyun (Myanmar) Industry Company Limited for EMP 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 EMP is up to date and is being followed properly by the proponent. Periodic audits of the EMP 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.

6.1.3. Structure and Responsibilities for the EMP Development and Implementation

The HSE officer is responsible to the HSE components of the project and on matters relating to the implementation of the EMP throughout operation life. The S&E officer will have responsibilities that include:

- 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 EMP and require the HR supervisor to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

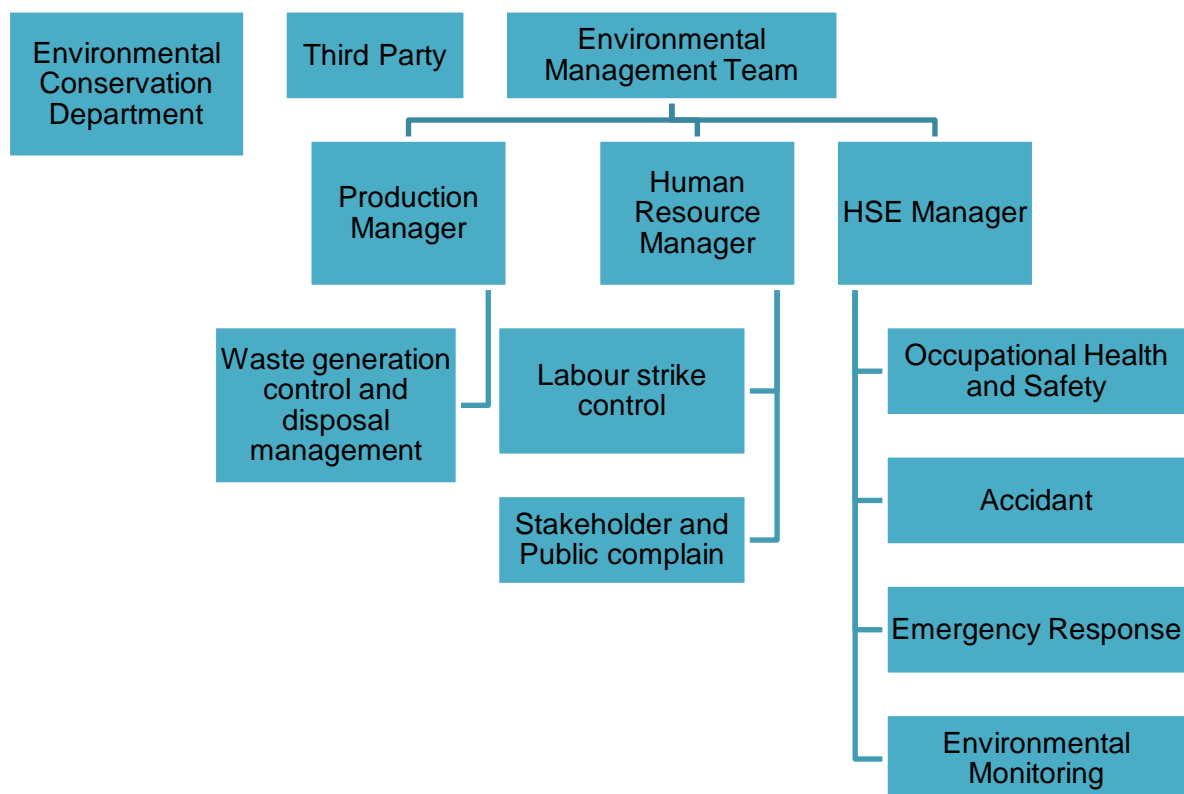


Figure 6-2 Organization Structure of Environmental Management Plan

Environmental Management Plan**6.2. ENVIRONMENTAL MANAGEMENT PROCESS**

The Environmental Management Plan (EMP) prepared for the proposed project covers the anticipated impacts of the said project, mitigation measures, management and monitoring plans

Table 6-1 Mitigation and Monitoring Process in Operation Phase

Categories	Potential Impact	Mitigation and Enhancement		Inspection		
		Measures	Responsible person	Type	Frequency	Supervision team
Air	Dust and GHGs emission from vehicles used for transporting raw materials and final products Emission from emergency diesel generator and vehicle movement	To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. The factory uses chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment. Ensuring vehicles, compressor and generator are well maintained.	HSE manager	Regular check	Monthly	Environmental Management Team of Tae Hyun (Myanmar) Industry Co., Ltd
Fire	Poor electrical installations Waste disposed area raw materials and chemical storage	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.	HSE manager Operation Manager	Regular Check	Monthly	Environmental Management Team of Tae Hyun (Myanmar) Industry Co., Ltd
Occupational Safety	Accidental cases cause by operating machines.	First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for	HSE manager	Regular Check	Monthly	Environmental Management Team of Tae

Environmental Management Plan

Categories	Potential Impact	Mitigation and Enhancement		Inspection		
		Measures	Responsible person	Type	Frequency	Supervision team
	Unloading, mixing, cutting, pressing and packaging activities. Accidental cases of thermic fluid heater	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.				Hyun (Myanmar) Industry Co., Ltd
Health	Influx of people Noise from the generating of the emergency generators	Manage the drainage systems of the factory to prevent health risk of the workers. 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	HSE manager	Arrangement for requirements, restriction and regular check awareness program	Half a year	Environmental Management Team of Tae Hyun (Myanmar) Industry Co., Ltd
Solid Waste	Residual pieces of fabric scraps from the production lines Waste from packaging materials Waste from kitchen, dormitory and office.	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.	Operation Manager	Regular Check	Weekly	Environmental Management Team of Tae Hyun (Myanmar) Industry Co., Ltd
Liquid Waste	Septic system and sewage. Domestic liquid waste disposal from office, kitchen and	Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can	HSE Manager Operation	Regular check	Half a Year	Environmental Management Team of Tae

Environmental Management Plan

Categories	Potential Impact	Mitigation and Enhancement		Inspection		
		Measures	Responsible person	Type	Frequency	Supervision team
	dormitory.	decrease these contaminations.	Manager			Hyun (Myanmar) Industry Co., Ltd
Hazardous Waste	Used oil and lubricant discharged from the maintenance of vehicles and machines.	<p>Proper inspection and maintenance in storage of hazardous waste.</p> <p>Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements.</p> <p>The empty chemical containers will hand over to suppliers for recycle or appropriate disposal</p> <p>The hazardous wastes are transported by specially licensed carriers and disposed in a licensed faculty (eg., DOWA and YCDC)</p>	HSE Manager Operation Manager	Restrictions and regular check	Daily	Environmental Management Team of Tae Hyun (Myanmar) Industry Co., Ltd

Environmental Management Plan

6.3. ENVIRONMENTAL MONITORING SCHEDULE AND REPORTING

The EMoP 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 EMoP. Table 6-2 is provided the environmental monitoring schedule for Tae Hyun (Myanmar) Industry 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 EMP,

Table 6-2 Environmental Monitoring Schedule for Tae Hyun (Myanmar) Industry Company Limited

Issues	Parameter	Frequency	Area to be monitored	Monitoring cost	Responsible Organization
Operation Phase					
Common	Monitoring of mitigation measures (Table 6-1)	Yearly (3 years after operation)	The project	2,500,000 Kyats	Environmental Management Team's Tae Hyun (Myanmar) Industry Co., Ltd.
Air quality	SO ₂ , NO ₂ , CO, CO ₂ , PM _{2.5} , PM ₁₀	Biannually monitoring and reporting to ECD (first 3 years after operation)	One point in the factory	500,000 Kyats	Environmental Management Team's Tae Hyun (Myanmar) Industry Co., Ltd.
Waste Generation	Solid waste, Liquid waste and Hazardous waste	weekly	Recycle house and waste house and at the factory office	1,000,000 Kyats	Environmental Management Team's Tae Hyun (Myanmar) Industry Co., Ltd.
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	At the factory	500,000 Kyats	Environmental Management Team's Tae Hyun (Myanmar) Industry Co., Ltd.
Light intensity	Illuminance	Monthly	At the production line (especially cutting and QC)	500,000 Kyats	Environmental Management Team's Tae Hyun (Myanmar) Industry Co., Ltd.
Decommissioning Phase					
Air quality	SO ₂ , NO ₂ , CO, CO ₂ , PM _{2.5} , PM ₁₀	One time during this phase	One point in the production area	1,000,000 Kyats	Land Owner
Noise	Noise level in decibel (dBA)	One time during this phase	One points in demolishing area	1,000,000 Kyats	Land Owner
Rehabilitation	Recovering and Revegetation		All decommissioning area		Land Owner

Environmental Management Plan

6.4. 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 given for during processing activities in order to prevent synthetic errors and accidental cases (e.g., electricity shock and fire hazards).

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

6.4.1. Assignment of responsibilities

All senior staff such as a line/production manager or safety officer should be assigned 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 maintained.

6.4.2. 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

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

6.4.3. Training for Emergencies

The type, amount and frequency of training varies, depending upon the task's employees are expected to perform. Although training must be provided to employees at least annually, safety meetings and drills should be conducted at more frequent 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
- ✚ Hazardous materials spill response
- ✚ First Aid

6.4.4. 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

Environmental Management Plan

- 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

6.4.5. Fire Protection Equipment

1. Explosion Suppression Systems: Explosion suppression systems should be used 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 expected to use portable extinguishers or other firefighting equipment against incipient fires, they must be trained 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 recommended 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.

6.4.6. 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

Environmental Management Plan

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 6-3 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 be trained in the fire emergency procedure described in their fire evacuation and fire safety plans and training should be based 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 made available to the fire code official upon request.

Employee Training Program: Employee shall be trained in fire prevention, evacuation and fire safety in accordance with the following sections.

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

Evacuation Training – Employees shall be familiarized 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

Environmental Management Plan

Fire Safety Training – Employee assigned fire-fighting duties shall be trained 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.

6.4.7. Site Fire Control

1. Alert other people through fire alarm
2. If small, control using an extinguisher
3. Contact fire brigade if not under immediate control
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 all instructions
8. Proceed to an emergency evacuation area (Muster Point)

6.4.8. Employee Information and Training

Employees must be informed about any operations in their work area where hazardous chemicals or materials are present. They must also be informed 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.

6.4.9. Health and Safety Training Plan for Worker

Health and Safety Training plan currently used and provided in Tae Hyun (Myanmar) Industry Company Limited to all employees and workers by trainings internally and externally. Specific trainings are recommended and conducted 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 6-4 Training Plan Used in Tae Hyun (Myanmar) Industry Company Limited

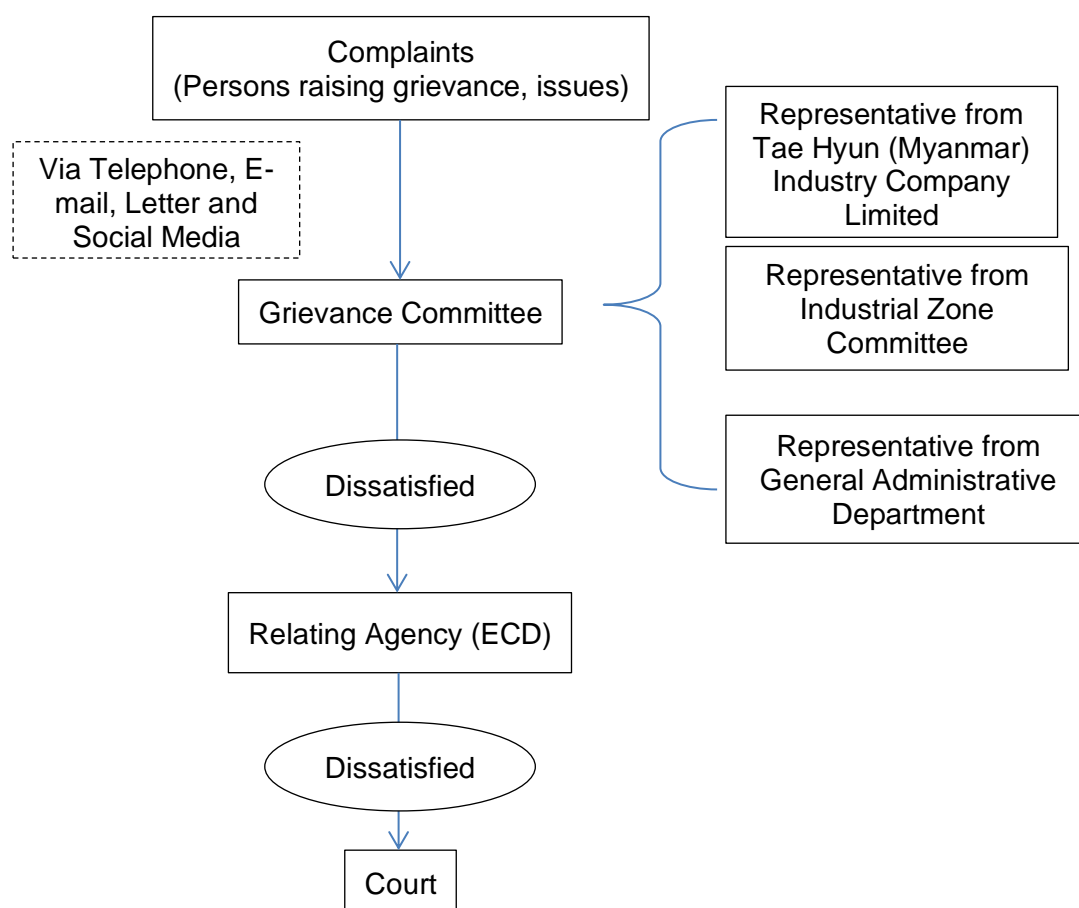
No.	Health and Safety Guidelines	Training needs
1.	Management	General fire and emergency response plan, evacuation. All training materials and procedures covering health and safety for workers and employees
2.	Machine safety and noise management	Training for machine operations to all operators Use of PPE and proper use of any necessary protection

Environmental Management Plan

		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 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

6.5. 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 Tae Hyun (Myanmar) Industry Company Limited representative from Hlaing Thar Yar Industrial Zone (Part-4) and representative from General Administration Department (Hlaing Thar Yar 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 6-3) show steps of Grievance Redress Mechanism of Proposed Factory Project.

Environmental Management Plan**Figure 6-3 Grievance Redress Mechanism flow diagram****6.6. 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 Tae Hyun (Myanmar) Industry 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.

Tae Hyun (Myanmar) Industry 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 6-5.

Table 6-5 CSR Plan at Tae Hyun (Myanmar) Industry Company Limited

No	Particle	Contribution
1	Public school	0.5%
2	Non-profit training	1
3	Employee healthcare	0.5%

Environmental Management Plan

6.6.1. 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.

6.6.2. 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 are that we want our jacket and cap 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.

6.6.3. 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.

7. PUBLIC CONSULTATION

7.1. PUBLIC CONSULTATION PROCESS

This chapter presents public consultation and information disclosures during the remaining period of the Environmental Management Plan (EMP). 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 EMP report.

Public consultation conducted as part of this EMP project has three purpose:

- 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 March, 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/1BglviXgyVBCBKwkb4hFP8Fw5BggIHLbZ/view?usp=drivesdk>) declared in 30 September, 2020 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 EMP
- Project Description
- Existing Environment and Monitoring
- Potential Impact and Mitigation measures
- Cooperative Social Responsibility (CSR)

[Home](#)[Services](#)[Reviews](#)[Shop](#)[Offers](#)[Photos](#)

Myanwei Environmental Solutions Company Limited

...

3 m • 🌐

ရန်ကုန်တိုင်းဒေသကြီး ၊ လှိုင်သာယာမြို့နယ် ၊ လှိုင်သာယာ
စက်မှုဇုန် အပိုင်း-(၄)တွင် တည်ရှိသော Tae Hyun
(Myanmar) Industry Company Limited (CMP စနစ်
ဖြင့်အဝတ်အထည်ချုပ်လုပ်ခြင်းလုပ်ငန်း(ဂျာကင်အမျိုးမျိုးနှင့်
ဦးထုပ်အမျိုးမျိုး)) အတွက် Myanwei Environmental
Solutions Company Limited မှ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအ
စီအစဉ် (EMP Report) အားတင်တင်ယူဆောင်ရွက်လျက်ရှိ
ပါသည်။

ယခု အခါ EMP အစီရင်ခံစာအတွက် လေ့လာပြီးစီးစဉ်အချိန်
တွင် အများပြည်သူ၏ သဘောထားများအကြံပြု နိုင်ရန်
အတွက် Power Point ဖိုင်အား တင်ပြအပ်ပါသည်။

[#Myanwei_Environmental_Solutions](#)

စီမံကိန်း အကြောင်းအရာ ဖော်ပြချက်-

<https://drive.google.com/file/d/1BglviXgyVBCBKwkb4hFP8Fw5BggIHLbZ/view?usp=drivesdk>

Tae Hyun (Myanmar) Industry Co.,Ltd. ၏ CMP စနစ်ဖြင့်
အဝတ်အထည်ချုပ်လုပ်ခြင်းလုပ်ငန်း (ဂျာကင်အမျိုးမျိုးနှင့်ဦးထုပ်အမျိုးမျိုး)

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီရင်ခံစာ (မူကြမ်း) အတွက်
သက်ဆိုင်သမားနှင့် တွေ့ဆုံဆွေးနွေးပွဲ အခမ်းအနား။

Figure 7-1 Announcement Post of Proposed Project at Social Media

8. CONCLUSION & RECOMMENTATION

8.1. CONCLUSION

Environmental Management Plan (EMP) has been prepared for Tae Hyun (Myanmar) Industry Company Limited is located at at Plot No. (139), Myay Taing Block No.Part-4, Industrial Zone, Hlaing Thar Yar Township, Yangon Region. The main objective of the study is focused specially on the required environmental management measures or creating environmentally friendly workplace. An EMP has been carried out for the factory according to the requirement of the proponent as it has been made for jacket and cap product manufacturing factory.

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

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 EMP 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 EMP will provide adequate opportunities to address any residual impacts during the operation phase.

In conclusion, it has been figured out that, the proposed jacket and cap 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.

8.2. 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 EMP and practiced at operation level.
- Keep full records of environmental management activities and present to annual independent third party environment audit.

Environmental Management Plan

- Abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.
- The proposed project should mitigate the environmental impact according to environmental management plan in all phase (Construction, Operation and Decommissioning).


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

9. REFERENCE

- [1] General Administrative Department (Myothit - Hlaing Thar Yar Township), Hlaing Thar Yar 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 Conservation (MONREC), "Environmental Impact Assessment Procedure" December 2015.
- [4] Ministry of Natural Resources and Environmental Conservation (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's Tae Hyun (Myanmar) Industry Company Limited

Form (5-B)


THE REPUBLIC OF THE UNION OF MYANMAR
Yangon Region Investment Committee

ENDORSEMENT

Endorsement No. YGN -277/2019 Date 29 October 2019

This endorsement is issued by Yangon Region Investment Committee in accordance with Section 25(d) of the Myanmar Investment Law-

(1) Name of Investor MR. KOO JA YONG

(2) Citizenship KOREAN

(3) Residence Address NO. 13-301, 262-GA-JEUNG RO SKO KU, INCHEON, REPUBLIC OF KOREA

(4) Name and Address of Principal Organization TAE HYUN (MYANMAR) INDUSTRY COMPANY LIMITED, PLOT NO.139, MYAY TAING BLOCK NO. PART-4, INDUSTRIAL ZONE, HLAING THAR YAR TOWNSHIP, YANGON

(5) Place of Incorporation MYANMAR

(6) Type of business MANUFACTURING OF WEARING APPAREL (SUCH AS VARIOUS KINDS OF JACKET AND CAP) ON CMP BASIS

(7) Place(s) of investment Project PLOT NO.139, MYAY TAING BLOCK NO. PART-4, INDUSTRIAL ZONE, HLAING THAR YAR TOWNSHIP, YANGON REGION

(8) Foreign Capital Amount NIL

(9) Period for Foreign Capital to be brought in NIL



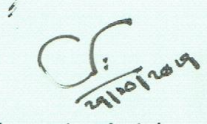
(10) Total Amount of Capital (Kyat) 1245.000 MILLION (INCLUDING US\$ 0.290 MILLION)

(11) Construction/ Preparation Period 1 YEAR

(12) Validity of Endorsement 25 YEARS

(13) Form of Investment MYANMAR CITIZEN INVESTMENT

(14) Name of Company Incorporated in Myanmar TAE HYUN (MYANMAR) INDUSTRY COMPANY LIMITED

  
(Phyto Min Thein)
Chairman



ပုံစံ (၅-ခ)

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ
အတည်ပြုမိန့်

အတည်ပြုမိန့်အမှတ် ရကတ-၂၇၇/၂၀၁၉ ၂၀၁၉ ခုနှစ် အောက်တိုဘာလ ၂၉ ရက်
ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှု ကော်မတီသည် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ဥပဒေ
ပုဒ်မ-၂၅(ဃ) အရ ဤအတည်ပြုမိန့်ကိုထုတ်ပေးလိုက်သည် -

- (၁) ရင်းနှီးမြှုပ်နှံသူ/ကမကထပြုသူအမည် MR. KOO JA YONG
- (၂) နိုင်ငံသား KOREAN
- (၃) နေရပ်လိပ်စာ NO.13-301, 262-GA-JEUNG RO SKO KU, INCHEON, REPUBLIC OF KOREA
- (၄) ပင်မအဖွဲ့အစည်းအမည်နှင့်လိပ်စာ TAE HYUN (MYANMAR) INDUSTRY COMPANY LIMITED ၊ မြေကွက်အမှတ် ၁၃၉၊ မြေတိုင်းရပ်ကွက်အမှတ် -အပိုင်း(၄)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်မြို့
- (၅) ဖွဲ့စည်းရာအရပ် မြန်မာ
- (၆) ရင်းနှီးမြှုပ်နှံသည့်လုပ်ငန်းအမျိုးအစား CMP စနစ်ဖြင့် အဝတ်အထည် ချုပ်လုပ်ခြင်း လုပ်ငန်း (ဂျာကင်အမျိုးမျိုး နှင့်ဦးထုပ် အမျိုးမျိုး)
- (၇) ရင်းနှီးမြှုပ်နှံသည့်အရပ်ဒေသ(များ) မြေကွက်အမှတ် ၁၃၉၊ မြေတိုင်းရပ်ကွက်အမှတ် -အပိုင်း(၄)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး
- (၈) နိုင်ငံခြားမတည်ငွေရင်း ပမာဏ မရှိ
- (၉) နိုင်ငံခြားမတည်ငွေရင်းယူဆောင်လာရမည့်ကာလ မရှိ
- (၁၀) စုစုပေါင်း မတည်ငွေရင်းပမာဏ(ကျပ်) ၁၂၄၅.၀၀၀ သန်း (အမေရိကန်ဒေါ်လာ ၀.၂၉၀ သန်း အပါအဝင် ကျပ် တစ်ထောင် နှစ်ရာ လေ့ဆယ့်ငါးသန်း တိတိ)
- (၁၁) တည်ဆောက်မှုကာလ ၁ နှစ်
- (၁၂) ရင်းနှီးမြှုပ်နှံမှုခွင့်ပြုသည့်သက်တမ်း ၂၅ နှစ်
- (၁၃) ရင်းနှီးမြှုပ်နှံမှုပုံစံ မြန်မာနိုင်ငံသားရင်းနှီးမြှုပ်နှံမှု
- (၁၄) မြန်မာနိုင်ငံတွင်ဖွဲ့စည်းမည့်ကုမ္ပဏီအမည် TAE HYUN (MYANMAR) INDUSTRY COMPANY LIMITED



(ဖြိုးမင်းသိန်း)
ဥက္ကဋ္ဌ



ကန့်သတ်

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ
မြေကွက်အမှတ် ၄၉၊ စိမ်းလွဲမေ လမ်းသွယ်၊
ကမ္ဘာအေးဘုရားလမ်း၊ ရန်ကင်းမြို့နယ်၊ ရန်ကုန်မြို့

ဧ ၀၁- ၆၅၅၂၆၃

စာအမှတ်၊ ရကတ /အ-၂၇၇/၂၀၁၉ (၁၁၄၁)

ဧ ၀၁- ၆၅၅၂၆၄

ရက်စွဲ ၊ ၂၀၁၉ ခုနှစ် အောက်တိုဘာလ ၁၆ ရက်

အကြောင်းအရာ။

Tae Hyun (Myanmar) Industry Company Limited မှ CMP စနစ်ဖြင့်
အဝတ်အထည် ချုပ်လုပ်ခြင်းလုပ်ငန်း (ဂျာကင်အမျိုးမျိုး နှင့်ဦးထုပ်
အမျိုးမျိုး) အတည်ပြုမိန့်အပေါ် ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှု
ကော်မတီ၏ ဆုံးဖြတ်ချက်

ရည်ညွှန်းချက် ။

Tae Hyun (Myanmar) Industry Company Limited ၏ ၂၀၁၉ ခုနှစ်
အောက်တိုဘာလ ၈ ရက်စွဲပါစာ

၁။ Tae Hyun (Myanmar) Industry Company Limited မှ မြေကွက်အမှတ် ၁၃၉၊
မြေတိုင်းရပ်ကွက်အမှတ် -အပိုင်း(၄)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးရှိ
၀.၉၇၇ ဧက (၃၉၅၃.၇၇၈၇ စတုရန်းမီတာ) တွင် CMP စနစ်ဖြင့် အဝတ်အထည် ချုပ်လုပ်ခြင်း
လုပ်ငန်း (ဂျာကင်အမျိုးမျိုး နှင့်ဦးထုပ် အမျိုးမျိုး) အား မြန်မာနိုင်ငံ ရင်းနှီး မြှုပ်နှံမှု ဥပဒေနှင့်
အညီ ဆောင်ရွက်ခွင့်ပြုပါရန် အတည်ပြု လျှောက်ထားလွှာ တင်ပြခြင်းအား ၂၀၁၉ ခုနှစ်
အောက်တိုဘာလ ၉ ရက်နေ့တွင် ကျင်းပပြုလုပ်ခဲ့သော ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီး မြှုပ်နှံမှု
ကော်မတီ၏ (၁၇/၂၀၁၉) ကြိမ်မြောက် အစည်းအဝေးသို့ တင်ပြခဲ့ရာ ခွင့်ပြုကြောင်း ဆုံးဖြတ်
ခဲ့ပါသည်။ အဆိုပါ ဆုံးဖြတ်ချက်အရ ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှု ကော်မတီသည်
မြန်မာနိုင်ငံ ရင်းနှီး မြှုပ်နှံမှုဥပဒေ၊ နည်းဥပဒေကို ကျင့်သုံးလျက် Tae Hyun (Myanmar)
Industry Company Limited အား CMP စနစ်ဖြင့် အဝတ်အထည် ချုပ်လုပ်ခြင်း လုပ်ငန်း
(ဂျာကင်အမျိုးမျိုး နှင့်ဦးထုပ် အမျိုးမျိုး) ဆောင်ရွက် နိုင်ရန်အတွက် အတည်ပြုမိန့်အမှတ်၊
ရကတ-၂၇၇/၂၀၁၉ ကို ထုတ်ပေး လိုက်သည်။

ကန့်သတ်

ကန့်သတ်

၂

၂။ Tae Hyun (Myanmar) Industry Company Limited အနေဖြင့် ဤအတည်ပြုမိန့်အရ လုပ်ငန်း ဆောင်ရွက်ရာတွင် အောက်ပါအတိုင်း အချက်များကို လိုက်နာ ဆောင်ရွက်ရမည် -

- (က) Tae Hyun (Myanmar) Industry Company Limited အနေဖြင့် ဤအတည်ပြုမိန့်အရ CMP စနစ်ဖြင့် အဝတ်အထည် ချုပ်လုပ်ခြင်း လုပ်ငန်း (ဂျာကင်အမျိုးမျိုး နှင့်ဦးထုပ် အမျိုးမျိုး) ဆောင်ရွက်ရာတွင် မြန်မာနိုင်ငံရင်းနှီး မြှုပ်နှံမှု ဥပဒေ အခန်း (၁၈)၊ ပုဒ်မ ၇၅၊ ၇၇ နှင့် ၇၈ တို့ အရ ကင်းလွတ်ခွင့်နှင့် သက်သာခွင့်များကို ပြဋ္ဌာန်းထားသည့် အချက်များ နှင့်အညီ ခံစားခွင့်ပြုနိုင်ရန် လျှောက်ထားနိုင်သည်။
- (ခ) Tae Hyun (Myanmar) Industry Company Limited သည် ဤအတည်ပြုမိန့် အရ လုပ်ငန်းဆောင်ရွက်ရာတွင် ထုတ်လုပ်မှု ရည်မှန်းချက်များကို အနိမ့်ဆုံး ရည်မှန်းချက်များ အဖြစ် ထားရှိ ဆောင်ရွက် အကောင် အထည်ဖော်ရမည်။
- (ဂ) Tae Hyun (Myanmar) Industry Company Limited အနေဖြင့် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ဥပဒေပုဒ်မ ၆၅ နှင့် နည်းဥပဒေအခန်း (၂၀) တို့တွင် ပြဋ္ဌာန်းထား သည့် ရင်းနှီးမြှုပ်နှံသူ၏ တာဝန် ဝတ္တရားများနှင့်အညီ လိုက်နာဆောင်ရွက်ရမည်။
- (ဃ) Tae Hyun (Myanmar) Industry Company Limited သည် အတည်ပြုလုပ်ငန်း ဆောင်ရွက်ရာတွင် သယံဇာတ နှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဝန်ကြီးဌာန မှ ပြဋ္ဌာန်း ထုတ်ပြန်ထားပြီး ဖြစ်သည့် ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဥပဒေ၊ နည်းဥပဒေ၊ ပတ်ဝန်းကျင် ထိခိုက်မှု ဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များတွင် ဖော်ပြပါရှိသည့် လိုက်နာ ဆောင်ရွက်ရမည့် အချက်များ၊ လုပ်ထုံးလုပ်နည်းများ၊ လမ်းညွှန်ချက်များနှင့် အညီ လိုက်နာ ဆောင်ရွက် ရမည်။
- (င) Tae Hyun (Myanmar) Industry Company Limited သည် မီးဘေးအန္တရာယ် မဖြစ်ပေါ်စေရေးအတွက် လိုအပ်သည့် မီးဘေးအန္တရာယ် ထိန်းသိမ်း ကာကွယ်ရေး စနစ်များကို ဝန်ခံ ကတိပြုထားသည့် အတိုင်း စနစ်တကျ ထားရှိ ဆောင်ရွက်

ကန့်သတ်

ကန့်သတ်

၃

ရမည်ဖြစ်ပြီး မီးသတ် ဦးစီးဌာန၏ နည်းဥပဒေများ၊ လုပ်ထုံး လုပ်နည်းများ၊
ညွှန်ကြားချက်များနှင့် အမိန့်များကို တိကျစွာ လိုက်နာ ဆောင်ရွက်ရမည်။

(စ) Tae Hyun (Myanmar) Industry Company Limited သည် ရင်းနှီးမြှုပ်နှံမှုအား
လုပ်ငန်း သက်တမ်းကာလ အတွင်း အခြားပုဂ္ဂိုလ် တစ်ဦးဦးသို့ တစ်ဆင့်
ငှားရမ်းခြင်း၊ ပေါင်နှံခြင်း၊ အစုရှယ်ယာ လွှဲပြောင်းခြင်းနှင့် လုပ်ငန်း လွှဲပြောင်းခြင်း
တို့ကို မြန်မာ နိုင်ငံရင်းနှီး မြှုပ်နှံမှု ဥပဒေ ပုဒ်မ ၇၂ နှင့် မြန်မာနိုင်ငံ ရင်းနှီး မြှုပ်နှံမှု
နည်းဥပဒေ ၁၉၁ အရ မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်သို့ တင်ပြရမည်။

(ဆ) Tae Hyun (Myanmar) Industry Company Limited သည် မြန်မာနိုင်ငံ
ရင်းနှီးမြှုပ်နှံမှု နည်းဥပဒေ ၁၉၆ အရ နှစ်စဉ် ဘဏ္ဍာရေးနှစ် ကုန်ဆုံးပြီးနောက်
သုံးလအတွင်း သတ်မှတ်ချက်ပါ အသေးစိတ်များပါရှိသည့် နှစ်စဉ် အစီရင်ခံစာအား
သတ်မှတ်ပုံစံဖြင့် ကုမ္ပဏီ၏ ဝက်(ဘ်)ဆိုဒ် (သို့မဟုတ်) ကော်မရှင်ရုံး၏
ဝက်(ဘ်)ဆိုဒ်သို့ တင်ပြရမည်။

(ဇ) Tae Hyun (Myanmar) Industry Company Limited သည် မြန်မာနိုင်ငံ
ရင်းနှီးမြှုပ်နှံမှု နည်းဥပဒေ ၁၉၇ အရ လုပ်ငန်း ဆောင်ရွက်နေစဉ်အတွင်း လုပ်ငန်း
အစီရင်ခံစာကို သုံးလလျှင် တစ်ကြိမ် ကော်မရှင်က သတ်မှတ် တောင်းခံသည့်
ပုံစံဖြင့် တင်ပြရမည်။

၃။ Tae Hyun (Myanmar) Industry Company Limited သည် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု
ဥပဒေပုဒ်မ ၆၅(ဃ)အရ သက်ဆိုင်သည့် ပြည်ထောင်စု ဝန်ကြီးဌာနများ၊ အစိုးရဌာနနှင့်
အဖွဲ့အစည်းများမှ လိုင်စင် သို့မဟုတ် ခွင့်ပြုမိန့် ရယူရန် လိုအပ်လျှင်ဖြစ်စေ၊ မှတ်ပုံတင်ရန်
လိုအပ်လျှင်ဖြစ်စေ သက်ဆိုင်ရာ ဌာန၏ သက်မှတ်ချက်နှင့် အညီ ဆောင်ရွက်ရမည်။

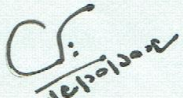
၄။ Tae Hyun (Myanmar) Industry Company Limited သည် အတည်ပြု လုပ်ငန်း
ဆောင်ရွက်ရာတွင် လုပ်ငန်းသဘာဝ အရဖြစ်စေ၊ အခြားလိုအပ်ချက်အရဖြစ်စေ သက်ဆိုင်သည့်
ပြည်ထောင်စု ဝန်ကြီးဌာနများ၊ အစိုးရဌာနနှင့် အဖွဲ့အစည်းများမှ လိုင်စင် သို့မဟုတ် ခွင့်ပြုမိန့်
ရယူရန် လိုအပ်လျှင်ဖြစ်စေ၊ သက်ဆိုင်ရာဌာနနှင့် မြေငှားရမ်းခြင်း စာချုပ်ချုပ်ဆိုသည်ဖြစ်စေ၊


ကန့်သတ်

ကန့်သတ်

၄

မှတ်ပုံတင်ရန် လိုအပ်လျှင်ဖြစ်စေ သက်ဆိုင်ရာဌာန၏ သတ်မှတ်ချက် များနှင့်အညီ ဆောင်ရွက်ပြီး
မိတ္တူ (၅) စုံစီအား ကော်မရှင်သို့ ပေးပို့ရမည်။


(ဖြိုးမင်းသိန်း)

ဥက္ကဋ္ဌ 

အုပ်ချုပ်မှုဒါရိုက်တာ၊

Tae Hyun (Myanmar) Industry Company Limited

ဖြန့်ဝေခြင်း

ပြည်ထောင်စုအစိုးရအဖွဲ့ရုံး

ပြည်ထဲရေးဝန်ကြီးဌာန

ပြည်ထောင်စုအစိုးရအဖွဲ့ရုံးဝန်ကြီးဌာန

သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန

အလုပ်သမား၊ လူဝင်မှုကြီးကြပ်ရေးနှင့်ပြည်သူ့အင်အားဝန်ကြီးဌာန

စက်မှုဝန်ကြီးဌာန

စီးပွားရေးနှင့်ကူးသန်းရောင်းဝယ်ရေးဝန်ကြီးဌာန

စီမံကိန်းနှင့်ဘဏ္ဍာရေးဝန်ကြီးဌာန

ရင်းနှီးမြှုပ်နှံမှုနှင့် နိုင်ငံခြားစီးပွားဆက်သွယ်ရေး ဝန်ကြီးဌာန

မြန်မာနိုင်ငံတော်ဗဟိုဘဏ်

မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှုကော်မရှင်ရုံး

ဥက္ကဋ္ဌ၊ CMP လုပ်ငန်းများကြီးကြပ်ရေး ကော်မတီ

ညွှန်ကြားရေးမှူးချုပ်၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန

ညွှန်ကြားရေးမှူးချုပ်၊ အလုပ်သမားညွှန်ကြားရေးဦးစီးဌာန

ညွှန်ကြားရေးမှူးချုပ်၊ လူဝင်မှုကြီးကြပ်ရေးနှင့် အမျိုးသားမှတ်ပုံတင်ရေးဦးစီးဌာန

ညွှန်ကြားရေးမှူးချုပ်၊ စက်မှုကြီးကြပ်ရေးနှင့် စစ်ဆေးရေးဦးစီးဌာန

ကန့်သတ်

ကန့်သတ်

၅

ညွှန်ကြားရေးမှူးချုပ်၊ ကုန်သွယ်ရေးဦးစီးဌာန

ညွှန်ကြားရေးမှူးချုပ်၊ အမျိုးသားမှတ်တမ်းများမော်ကွန်းတိုက်ဦးစီးဌာန

ညွှန်ကြားရေးမှူးချုပ်၊ အကောက်ခွန်ဦးစီးဌာန

ညွှန်ကြားရေးမှူးချုပ်၊ ပြည်တွင်းအခွန်များဦးစီးဌာန

ညွှန်ကြားရေးမှူးချုပ်၊ ရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန

ရင်းနှီးမြှုပ်နှံမှု ကြီးကြပ်ရေးဌာန၊ ရင်းနှီးမြှုပ်နှံမှုနှင့် ကုမ္ပဏီများညွှန်ကြားမှု ဦးစီးဌာန

ကန့်သတ်

APPENDIX B

Transitional Consultant Registration Certificate



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



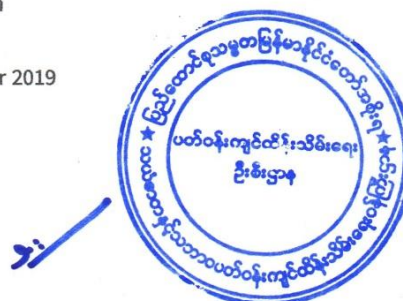
CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION
 (ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

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 သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို ထုတ်ပေးလိုက်သည်။)

- | | |
|--|--|
| (a) Name of Organization
(အဖွဲ့အစည်းအမည်) | Myanwei Consulting Co., Ltd. |
| (b) Name of the representative in the organization
(အဖွဲ့အစည်းကိုယ်စားလှယ်၏အမည်) | 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. 10048 Date 07 JUL 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 သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် 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 |

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။
Soe Naing
10.6.2017
For Director General
(Soe Naing, Director)
Environmental Conservation Department

APPENDIX C

Monitoring Result

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:	Tae Hyun (Myanmar) Industry Company Limited
Project Location:	Plot No.(139), Myay Taing Block No.Part-4, Industrial Zone, Hlaing Thar Yar Township, Yangon Region.
Sampling Date:	17 July, 2020
Sampling Time:	1:00 pm to 4:00 pm
Sampling Condition:	Normal
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°51'22.52"N and 96° 3'32.77"E

No	Measure area	Unit	Result	Standard	Remark
1.	Warehouse	Lux	295	200	
2.	Cutting Line	Lux	1245	900	
3.	Sewing Line	Lux	1159	600	
4.	QC	Lux	1269	900	
5.	Ironing	Lux	1059	600	
6.	Packing	Lux	1153	2000	

IESNA Lighting Handbook

Department	Type of Light	Wattage of Light	Lux Level
Fabric store	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 HTE SEIN
 DIRECTOR
 MYANWEI ENVIRONMENTAL SOLUTIONS
 COMPANY LIMITED.

Noise 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) 9775405138, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	Tae Hyun (Myanmar) Industry Company Limited
Project Location:	Plot No.(139), Myay Taing Block No.Part-4, Industrial Zone, Hlaing Thar Yar Township, Yangon Region.
Sampling Date :	17 July,2020
Sampling Time:	1:00 pm to 4:00 pm
Sampling Condition:	Normal Condition
Sampling By:	Environmental Team Represented By Myanwei Consulting Group Company Limited

Instrument	Type	Sampling Rate	Location
Digital Sound Level Meter	GM 1356 USB	30 -130 dB	16°51'22.52"N 96° 3'32.77"E

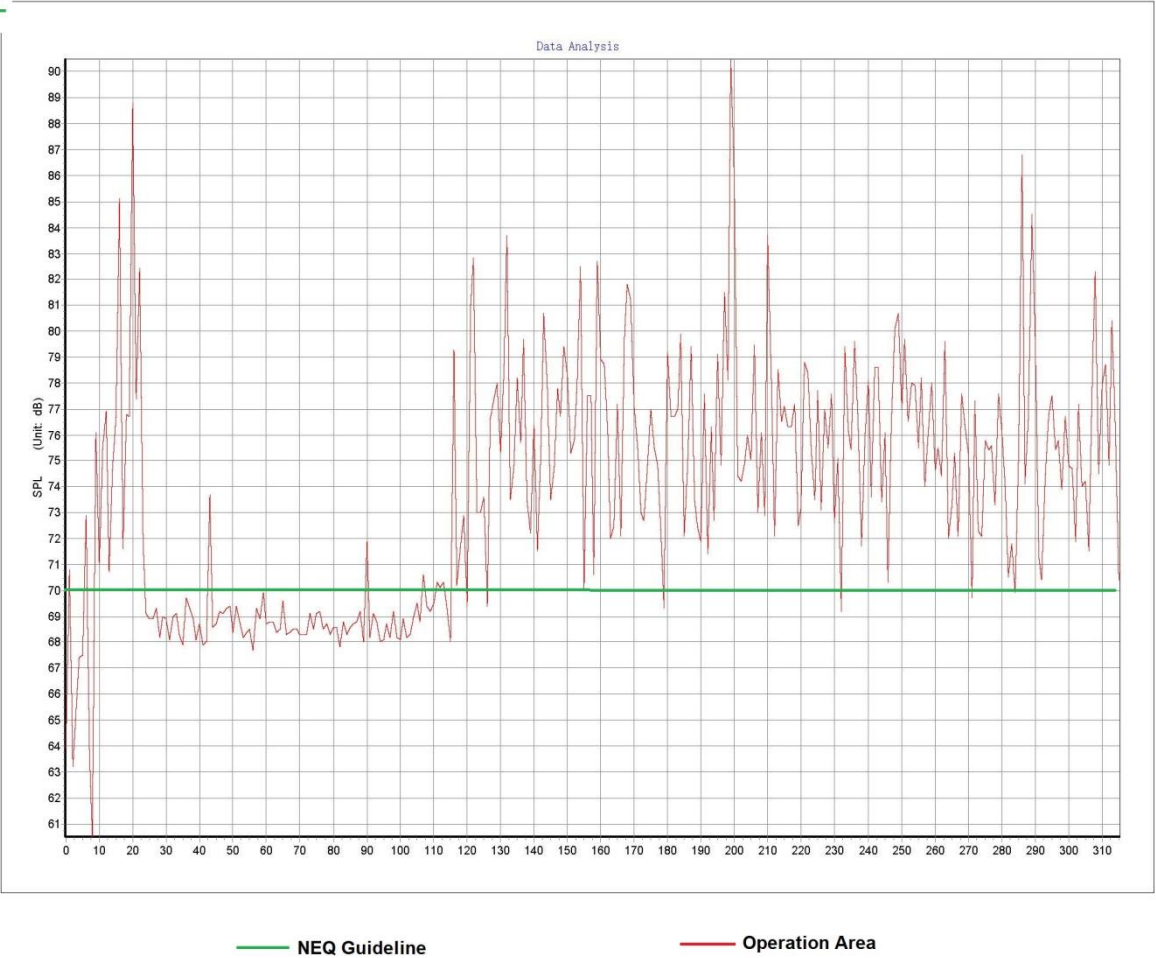
No	Place	Unit	Result	Standard	Remark
1	Operation Area	dBA	73.64 dB	70 dBA	Normal

National Environmental Quality (Emission) Guideline

Receptor	One Hour Laeq (dBA)	Guideline value
	Daytime	Nighttime
	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



Air 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:	Tae Hyun (Myanmar) Industry Company Limited
Project Location:	Plot No.(139), Myay Taing Block No.Part-4, Industrial Zone, Hlaing Thar Yar Township, Yangon Region.
Sampling Date:	17 July, 2020
Sampling Time:	11:00 am to 4:00 pm
Sampling Condition:	Moderate
Sampling By:	Environmental Team Represented by Myanwei Consulting Group Company Limited

Instrument	Type	Sampling Rate	Location
MYANWEI-AQM-09	Environmental Perimeter Air Station	1 second to 21 weeks	Operation Area (Indoor/Outdoor)

National Environmental Quality (Emission) Guideline

Parameter	Averaging period	Guideline value	Unit
PM 10 ^b	24-hour	20 50	($\mu\text{g}/\text{M}^3$)
PM 2.5 ^b	24-hour	10 25	($\mu\text{g}/\text{M}^3$)
NH ₃	-	-	
CO	-	-	
NO ₂	1-hour	40 200	
SO ₂	10 minute	20 500	
VOC	-	2/20/50/75/100/1 150 c,d	mg/Nm ³



a. Particulate matter 10 micrometer or less in diameter
b. Particulate matter 2.5 micrometer or less in diameter

Monitoring Result

Parameters	Observed value	Guideline value	Unit	Organization	Period
PM ₁₀	18.1	50	$\mu\text{g}/\text{m}^3$	NEQG	8 hrs
PM _{2.5}	12.2	25	$\mu\text{g}/\text{m}^3$	NEQG	8 hrs
SO ₂	365.8	500	$\mu\text{g}/\text{m}^3$	NEQG	10 mins
NO ₂	92.7	200	$\mu\text{g}/\text{m}^3$	NEQG	1 hr
CO	1.825	-	$\mu\text{g}/\text{m}^3$	-	


LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Drinking Water Result

 <p>ကျန်းမာရေးနှင့်အားကစားဝန်ကြီးဌာန Ministry of Health and Sports</p> <p>အစားအသောက်နှင့်ဆေးဝါးကွပ်ကဲရေးဦးစီးဌာန Department of Food and Drug Administration</p> <p>အစားအသောက်ထုတ်လုပ်ခြင်းထောက်ခံချက်လက်မှတ် RECOMMENDATION FOR FOOD MANUFACTURING</p>		
<p>ကျန်းမာရေးနှင့်အားကစားဝန်ကြီးဌာန၊ အစားအသောက်နှင့်ဆေးဝါးကွပ်ကဲရေးဦးစီးဌာနသည် အမျိုးသား အစားအသောက်ဥပဒေ ပုဒ်မ(၉)အရ အောက်ပါလုပ်ငန်းအား ဤထောက်ခံချက်ကို ထုတ်ပေးလိုက်သည်။</p> <p>Ministry of Health and Sports, Department of Food and Drug Administration issued this certificate for the under-mentioned food manufacturing facility according to the Section (9) of the National Food Law.</p>		
လုပ်ငန်းအမည်	April Moe သောက်ရေသန့်လုပ်ငန်း	
Name of Business :	April Moe Bottled Drinking Water Factory	
လုပ်ငန်းလိပ်စာ	အမှတ်(၁၅၄)၊ တပင်ရွှေထီးလမ်း၊ (၁/၁၂) ရပ်ကွက်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး။	
Address :	No. (154), Tapin Shwehtee Street, (1/12) Ward, Hlaingtharyar Township, Yangon Region, Myanmar.	
ထောက်ခံချက်ထုတ်ပေးသည့် အစားအသောက်အမျိုးအစား	သောက်ရေသန့်	
Product range :	Bottled Drinking Water	
ရည်ညွှန်းချက်	ဗဟိုအစားအသောက်နှင့်ဆေးဝါးကြီးကြပ်ကွပ်ကဲရေးကော်မတီ(၀၂/၂၀၁၄) အစည်းအဝေး	
Reference :	Central Food and Drug Supervisory Committee (02/2014) Meeting	
ထောက်ခံချက်အမှတ်	စ ၁/၁၄၇၀၉/ထလ	
Registration No :	Sa 1/14709/Hta La	
ထုတ်ပေးသည့်ရက်စွဲ	၂၀၁၉ ခုနှစ်၊ ဇူလိုင်လ (၁) ရက်	
Date of Issue :	1 st July, 2019	
ကုန်ဆုံးရက်စွဲ	၂၀၂၁ ခုနှစ်၊ ဇွန်လ (၃၀) ရက်	
Expiry Date :	30 th June, 2021	
<p style="text-align: right;">(ညွှန်ကြားရေးမှူးချုပ်) (Director General)</p> <p style="text-align: right;">အစားအသောက်နှင့်ဆေးဝါးကွပ်ကဲရေးဦးစီးဌာန</p>		
<p style="text-align: center;">(လိုက်နာရမည့် စည်းကမ်းချက်များ ကျောက်တံတွင်)</p>		

APPENDIX D

Fire Safety Training Photo



APPENDIX E

Power Point Presentation Slides

**Tae Hyun (Myanmar) Industry Co.,Ltd. ၏ CMP စနစ်ဖြင့်
သက်တောင့်သက်သာရှိစွာလုပ်ငန်းလုပ်ကိုင်ခြင်း (ကျောက်အမျိုးမျိုးနှင့်ဦးထုပ်အမျိုးမျိုး)**

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီရင်ခံစာ (မူကြမ်း) အတွက်
သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးပွဲ အခမ်းအနား။

စက်တင်ဘာလ၊ ၂၀၂၀ ခုနှစ်။
Prepared By
Myanwei Environmental Solutions Co., Ltd



Tae Hyun (Myanmar) Industry Co.,Ltd စက်ရုံပြင်ပအဆောက်အအုံပုံစံ



လုပ်ငန်းလည်ပတ်ရန်အခြေခံလိုအပ်ချက်များ

ရေအသုံးပြုမှုအခြေအနေ	
ရေအရင်းအမြစ်	အစိစိတွင်းရေ (၁ တွင်း)
အဓိကလိုအပ်ချက်	
ခန့်အပ်မည့်လုပ်သားဦးရေ	၅၇၂ ဦး
အဓိကကုန်ကြမ်း	ချည်ထည်၊ နိုင်လွန်စ၊ အင်္ကျီအမျိုးမျိုး နှင့် ဆက်စပ်ပစ္စည်းများ။
နှစ်စဉ်ထွက်ကုန်ပစ္စည်းပမာဏ	နှစ်စဉ် ပျမ်းမျှထုတ်ကုန်အရေအတွက် တစ်ဆယ့်လေးသိန်းကျော်။



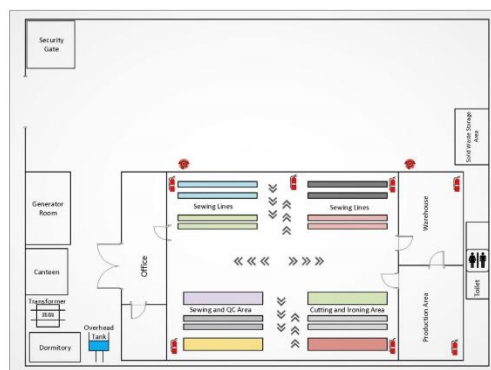
အစည်းအဝေး အကြောင်းအရာ

- ၁။ Tae Hyun (Myanmar) Industry Co.,Ltd. အား မိတ်ဆက်ခြင်း
- ၂။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်အား မိတ်ဆက်ခြင်း
- ၃။ သက်ဆိုင်ရာမူဝါဒစီမံခြင်း ရလဒ်များနှင့် ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ
- ၄။ ပတ်ဝန်းကျင်အပေါ် သက်ဆိုင်မှုမူဝါဒများနှင့် ဖြေရှင်းရေးနည်းလမ်းများ
- ၅။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် နှင့်
- ၆။ စက်ရုံ၏ဆောင်ရွက်ချက်များ

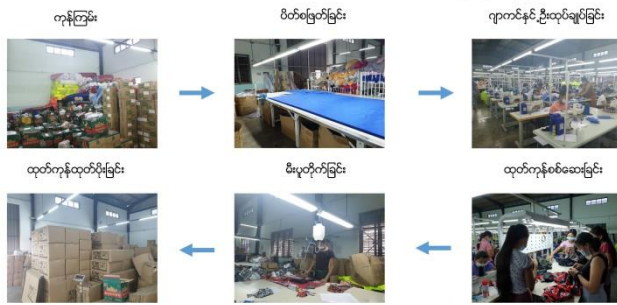
Tae Hyun (Myanmar) Industry Company Limited

လုပ်ငန်းအမျိုးအစား	CMP စနစ်ဖြင့် အဝတ်အထည်ချုပ်လုပ်ငန်းလုပ်ကိုင်ခြင်း (ကျောက်အမျိုးမျိုးနှင့်ဦးထုပ်အမျိုးမျိုး)။
စွန့်ပြန်အမှတ်	(စွန့်ပြန်အမှတ်- ရကတ - ၂၇၇/၂၀၁၉)၂၀၁၉ ခုနှစ်၊ အောက်တိုဘာလ ၂၉ ရက်။
ရင်းနှီးမြှုပ်နှံမှု	မြန်မာနိုင်ငံသားရင်းနှီးမြှုပ်နှံမှု။
မြေဧရိယာ	မြေဧရိယာစုစုပေါင်း- ၀.၉၇၇ ဧက (၃၉၅၃.၇၇၇၇ စတုရန်း မီတာ)
အဆောက်အအုံ	(၈၀x၁၈၀ ပေ) တစ်ထပ်အဆောက်အအုံတစ်လုံး။ (၈၀x၂၀ ပေ) နှစ်ထပ်အဆောက်အအုံတစ်လုံး။ (၁၀x၄၀ ပေ) နှစ်ထပ်လူနေအဆောင်တစ်လုံး။ (၁၀x၁၀ ပေ) နှစ်ထပ်လုံခြုံရေးတံတစ်လုံး။
ရင်းနှီးမြှုပ်နှံသည့်ကာလ	၂၅ နှစ်ရင်းနှီးမြှုပ်နှံမှု။
စက်ရုံလိပ်စာ	မြေကွက်အမှတ်(၁၃၉)၊ မြေတိုင်းရပ်ကွက် အမှတ် အပိုင်း (၄)၊ စက်မှုဇုန်၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး။

Tae Hyun (Myanmar) Industry Company Limited ၏စီမံကိန်း တည်နေရာ



Tae Hyun (Myanmar) Industry Company Limited ၏ ကုန်ထုတ်လုပ်ပုံအဆင့်ဆင့်

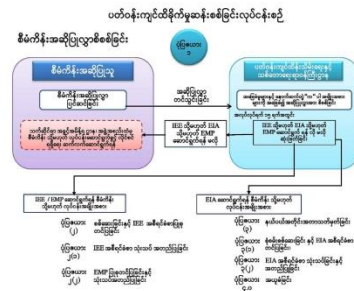


Tae Hyun (Myanmar) Industry Company Limited ၏ ထုတ်ကုန်များ

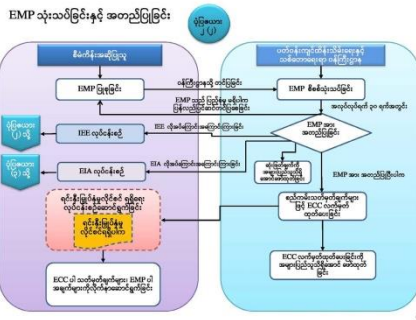


ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု လုပ်ငန်းအား မိတ်ဆက်ခြင်း

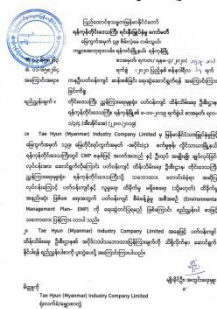
ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု လုပ်ငန်းစဉ်



ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီအတည်ပြုမိန့်



သဘောထားမှတ်ချက်

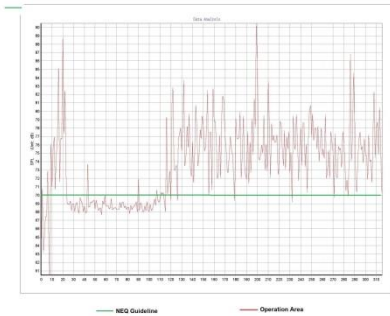


သက်ရောက်မှုဆန်းစစ်ခြင်းရလဒ်များနှင့် ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ

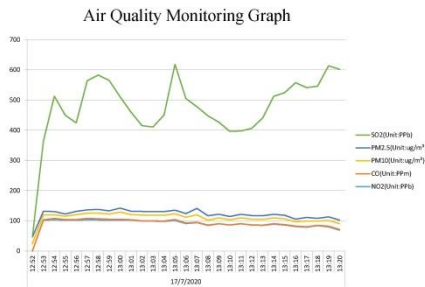
စီမံကိန်းပတ်ဝန်းကျင်အနေအထား

စဉ်	အကြောင်းအရာ	ဖော်ပြချက်
၁။	ကိုဩဒိနိတ်အမှတ်	မြောက်လတ္တီကျု ၁၆°၅၁'၂၂.၅၂"နှင့် အရှေ့လောင်ဂျီကျု ၉၆°၃၂'၂၇"
၂။	ရာသီဥတုအခြေအနေ	လှိုင်သာယာ မြို့နယ် နှစ်စဉ်ပျမ်းမျှအမြင့်ဆုံးအပူချိန် ၄၀°C၊ အနိမ့်ဆုံးအပူချိန် ၂၆°C
၃။	စက်ရုံနေရာတွင်မြေအသုံးချမှု	စက်မှုလုပ်ငန်းနှင့်သက်ဆိုင်သောမြေအသုံးချမှုပုံစံ (စက်မှုရန်)
၄။	လမ်းပန်းဆက်သွယ်ရေး	စရေပင်လမ်းအနောက်ရထားလမ်းမှသိမ်းလမ်း
၅။	သစ်တောဧရိယာ	မရှိ
၆။	ကန့်သတ်ကာကွယ်ထားသော ဧရိယာ	မရှိ
၇။	တိုင်းတာမှုရလဒ်	<input type="checkbox"/> ဆူညံသံ တိုင်းတာခြင်း <input type="checkbox"/> လေထုအရည်အသွေး တိုင်းတာခြင်း <input type="checkbox"/> အပူချိန် နှင့် စိုစွတ်မှု အရည်အသွေး တိုင်းတာခြင်း <input type="checkbox"/> ရေအရည်အသွေး

Tae Hyun (Myanmar) Industry Company Limited ၏ဆူညံသံတိုင်းတာမှုပြုစုရန်



Tae Hyun (Myanmar) Industry Company Limited ၏လေထုတိုင်းတာမှုပြုစုရန်



ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများနှင့် မြေလျှော့ရေးနည်းလမ်းများ

ဆူညံသံတိုင်းတာမှု

Date & Time	Location	GPS location	Noise Result	NEQ Guideline
17. July , 2020	Operation Area	16°51'22.46"N 96° 3'32.42"E	73.64 dBA	70 dBA

အထက်ဖော်ပြပါ ဆူညံသံတိုင်းတာမှုရလဒ်များအရ Tae Hyun (Myanmar) Industry Company Limited ၏ဆူညံသံများမှာ National Environmental Quality (Emission) Guideline ထပ်အနည်းငယ်ကျော်လွန်နေသည်ကို ဆန်းစစ်တွေ့ရှိရပါသည်။



ဆူညံသံတိုင်းတာမှုပုံရိပ်များ

လေထုတိုင်းတာမှု

Parameters	Observed Value	Guideline Value	Unit	Organization	Period
PM10	18.1	50	μg/m ³	NEQG	24 hrs
PM2.5	12.2	25	μg/m ³	NEQG	24 hrs
SO2	365.8	500	μg/m ³	NEQG	10 minutes
NO2	92.7	200	μg/m ³	NEQG	1 hour
CO	1.825	10	μg/m ³	NEQG	8 hrs



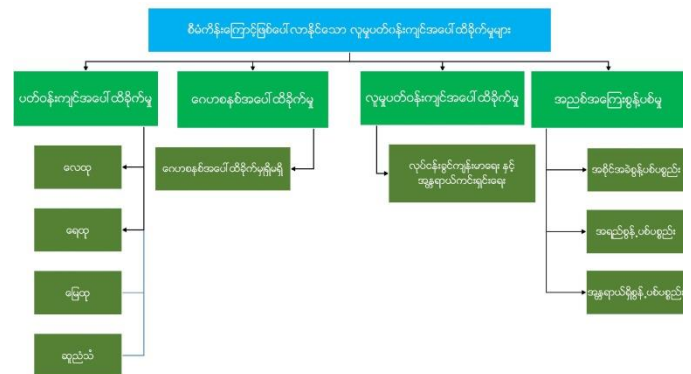
လေထုတိုင်းတာမှုပုံရိပ်များ

အလင်းရောင်တိုင်းတာမှု

No.	Location	Measure value (Lux)	Standard*	Remark
1	Warehouse	295	200	Above
2	Cutting Line	1245	900	Above
3	Sewing Line	1159	600	Above
4	QC	1269	900	Above
5	Ironing	1059	600	Above



စက်ရုံအတွင်းအလင်းရောင်တိုင်းတာမှုပုံရိပ်များ



သက်ခေတ်မှ	စီမံကိန်းအသေးစွက်ချက်	လေ့လာညွှန်းကြမ်း၊ အခြေခံပုံသေသက်ခေတ်မှ
စီမံကိန်းပတ်ဝန်းကျင်		
ဇေယျ	အမေဆာကံအညီမျိုးစု၊ သယံဇာတများ	လေ့လာချက်မူလပုံစံ
ဓနပူ	မြေပုံ၊ မြေအောက်အပေါ်သက်ခေတ်မှမူလပုံစံ	လေ့လာချက်မူလပုံစံ
တည်ဆဲ	တည်ဆဲပုံစံ၊ မြေပုံ	လေ့လာချက်မူလပုံစံ
လုပ်ငန်းစဉ် အသေးစွက်ချက်	လုပ်ငန်းစဉ်ပတ်ဝန်းကျင်တွင် မတော်တဆဆရာ၊ မြေပုံပုံစံ	လုပ်ငန်းစဉ်ပတ်ဝန်းကျင်တွင် မတော်တဆဆရာ၊ မြေပုံပုံစံ
စွန့်ပစ်ပစ္စည်း (အစိုင်အခဲ)	စီမံကိန်းအသေးစွက်ချက်၊ အကျိုးအမြတ်ပုံစံ၊ ကျွန်ုပ်တို့အသေးစွက်ချက်	အကျိုးအမြတ်ပုံစံ၊ မြေပုံပုံစံ၊ စွန့်ပစ်သောပစ္စည်း
အကျိုးအမြတ်ပုံစံ	စက်ယူ၊ စီမံပုံစံအသေးစွက်ချက်	စက်ယူပုံစံ၊ စီမံပုံစံအသေးစွက်ချက်

လေထုညစ်ညမ်းမှုလျော့ချရေး	
ရည်ရွယ်ချက်	စီမံကိန်းကြောင့် စက်ရုံမှ ထွက်သော ဓာတ်ငွေ့များနှင့် မီးစက်များမှ ထွက်ရှိသော ဓာတ်ငွေ့များကြောင့် လေထုညစ်ညမ်းမှုကို လျော့ချရန်
လိုက်နာရမည့် စည်းကမ်း	အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၈)
စီမံခန့်ခွဲမှု အစီအစဉ်	<ul style="list-style-type: none"> စက်ရုံအတွင်းနှင့် အနားဝန်းကျင်တွင် သမိပ်ပင်ပန်းမရှိဘဲပျံ့ခြင်း စက်ရုံအတွင်း မှည့်သည့်စွန့်ပစ်ပစ္စည်းများအား မီးရှို့ချက်စီးခြင်း၊ ပြုပြင်လုပ်ခြင်း လုပ်သားများအား Personal Protective Equipment (PPE) ဟုခေါ်သော အကာအကွယ်ပစ္စည်းများဖြစ်သည့် လေကာ/နေကာမျက်မှန်များ၊ နှာခေါင်းစည်း၊ စသည့်ပုံစံအားထောက်ပံ့ခြင်း၊ အသိပညာပေး သင်တန်းများ ပေးခြင်း
တာဝန်ယူရမည့် ပုဂ္ဂိုလ်	<ul style="list-style-type: none"> ပြုပြင်ထိန်းသိမ်းရေးအရာရှိ - လေထုညစ်ညမ်းမှုလျော့ချရေးနည်းလမ်းများ ထုတ်လုပ်ရေးနှင့်နေရာ - လုပ်ငန်းခွင်လေထုညစ်ညမ်းမှုလျော့ချရေး မန်နေဂျာ - ပတ်ဝန်းကျင်လေအရည်အသွေးတိုင်းတာစနစ် (ThirdParty) ဖြင့်ညှိမှန်ဆောင်ရွက်ရန်

ရည်ရွယ်ချက်	ဘေးပတ်ဝန်းကျင်ဆိုင်ရာပုံမှန်ခြုံငုံစစ်ဆေးမှုနှင့် စက်ရုံရှိ မီးစက်နှင့် အခြားစက်ယန္တရားများ ကြောင့် လုပ်သားများအပေါ်ထိခိုက်မှု လျော့ချရန်
လုပ်ကိုင်ရမည့် စည်းကမ်း	<ul style="list-style-type: none"> • ပတ်ဝန်းကျင်ဆိုင်ရာစစ်ဆေးမှုခြင်းဆိုင်ရာစည်းကမ်းများ (၂၀၁၅) • အန္တရာယ်ပတ်ဝန်းကျင်ဆိုင်ရာအဆင့်အသွေး (ထုတ်ကွပ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> • မီးစက်/လေ့ကွပ်စက်တို့ကို ဆူညံသံထိန်းချုပ်နိုင်သော ခန်းဖွဲ့ စည်းမျဉ်း တည်ဆောက်ထားခြင်း • လုပ်ငန်းသုံးယာဉ်များကိုဆူညံသံလျော့ချရန်သတ်မှတ်အရှိန်ထက်ကျော်လွန်မဟောင်းစေခြင်း • လုပ်သားများအား Personal Protective Equipment (PPE) ဟုခေါ်သော အကာအကွယ်ပစ္စည်းများဖြစ်သည့် နားအကာကွယ်အရေးစွဲညှပ်များ စသည်တို့အား ဖောက်ကျခြင်း၊ အပွယ်ညာအား သင်တန်းများ ပေးခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ - ဆူညံသံတိုင်းတာရန် (ThirdParty) မြင့်မြို့ရှိမီးဆောင်ရွက်ရန်

ရည်ရွယ်ချက်	မြေပေါ်နေနှင့် မြေအောက်ရေ ညစ်ညမ်းမှုပျက်စီးစေရေး
လိုက်နာရမည့်စည်းကမ်း	<ul style="list-style-type: none"> ပတ်ဝန်းကျင်ထိခိုက်မှုသန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅) အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအခြေခံအသွေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	<ul style="list-style-type: none"> စက်ရုံရေမြောင်းများနှင့်မိလ္လာစနစ်ကို စနစ်တကျ သန့်ရှင်းအောင်ထားရှိခြင်း လုံလောက်သည့်အတိုင်းအတာ ပမာဏရှိခြင်း မိလ္လာစနစ်ကို ပုံမှန်စစ်ဆေးပြီး လိုအပ်သကဲ့သို့ ထိန်းသိမ်းပြုပြင်ခြင်း စက်ရုံရေမြောင်းအတွင်းတွင် ပိတ်ဆို့မှုမရှိစေရန်နှင့် အနံ့ဆိုးများမထွက်စေရန်စီမံခြင်း
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ - စွန့်ထုတ်ရေးအခြေခံအသွေးတိုင်းတာရန် (ThirdParty) ဖြင့်ညှိနှိုင်းဆောင်ရွက်ရန်

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

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

အရာ	ဆန်းစစ်ရာ	ငြိမ်းနိုး	မူရာ	တားဆီးမှု
စက်ရုံမှထွက်သောကုန်ပစ္စည်း				
ဓာတ်ငွေ့	SO2, NO2, CO, CO2, PM2.5, PM10	တစ်နည်း (သတ္တိသောဏ်းမှထွက်သွားသည်)	စက်ရုံမှထွက်သွားသည်	Environmental Management Team's Task Hygiene (Mysanmar) Industry Company Limited and Third Party
မူရာ	pH, Apparent Colour, Turbidity, TDS, Total solids, Chloride, Free Cyanide, Nitrate, Arsenic, Cadmium, Copper, Iron, Lead and Zinc	တစ်နည်း (သတ္တိသောဏ်းမှထွက်သွားသည်)	အဆိုးဆုံး ဖြစ် မည်တောင်းဆိုသည်	Environmental Management Team's Task Hygiene (Mysanmar) Industry Company Limited and Third Party
မူရာ	dBA	တစ်နည်း (သတ္တိသောဏ်းမှထွက်သွားသည်)	စက်ရုံမှထွက်သွားသည်	Environmental Management Team's Task Hygiene (Mysanmar) Industry Company Limited and Third Party
စီးဆင်းမှု	စီးဆင်းမှု	တစ်လ တစ်နည်း	စက်ရုံမှထွက်သွားသည်	Environmental Management Team's Task Hygiene (Mysanmar) Industry Company Limited and Third Party
လုပ်ငန်းခွင်မှထွက်သောကုန်ပစ္စည်း				
လုပ်ငန်းခွင်မှထွက်သောကုန်ပစ္စည်း	မတော်တရားသော အစားအသုံးဆောင်မှုများအတွက် တစ်နည်း (သတ္တိသောဏ်းမှထွက်သွားသည်)	တစ်လ တစ်နည်း	မတော်တရားသော လုပ်ငန်းခွင်မှထွက်သွားသည်	Environmental Management Team's Task Hygiene (Mysanmar) Industry Company Limited and Third Party
အဆိုးဆုံးကုန်ပစ္စည်း	အဆိုးဆုံးကုန်ပစ္စည်း	တစ်လ တစ်နည်း	စက်ရုံမှထွက်သွားသည်	Environmental Management Team's Task Hygiene (Mysanmar) Industry Company Limited and Third Party

စဉ်	အမျိုးအမည်အရာ	အမျိုးအမည်အရာသို့ကူး	ကျော်ကြားစဉ် (အမှတ်စဉ်/အမျိုးအမည်)
လောကုမ္ပဏိအမျိုးအမည်			
၁.	ကော်မရှင်အမျိုးအမည်အရာသို့ကူး	အမှတ် စာကြည့်	အမှတ်စဉ် ၁၀၀
၂.	ကော်မရှင်အမျိုးအမည်အရာသို့ကူး	၂၀၀၀	၂၀၀၀
၃.	အမျိုးအမည်အရာသို့ကူး	၁၂	၁၂
၄.	ကော်မရှင်အမျိုးအမည်အရာသို့ကူး	၆၀	၆၀
၅.	ကော်မရှင်အမျိုးအမည်အရာသို့ကူး	၆၀	၆၀
၆.	ကော်မရှင်အမျိုးအမည်အရာသို့ကူး	၆၀	၆၀
အမျိုးအမည်အရာသို့ကူး			
၁.	အမျိုးအမည်အရာသို့ကူး	၁၀၀	၁၀၀
၂.	အမျိုးအမည်အရာသို့ကူး	၁၀၀	၁၀၀
၃.	အမျိုးအမည်အရာသို့ကူး	၁၀၀	၁၀၀
အမျိုးအမည်အရာသို့ကူး			
၁.	အမျိုးအမည်အရာသို့ကူး	၁၂	၁၂
၂.	အမျိုးအမည်အရာသို့ကူး	၁၂	၁၂
၃.	အမျိုးအမည်အရာသို့ကူး	၁၂	၁၂

[illegible][illegible]

Tae Hyun (Myanmar) Industry Company Limited တွင် CSR အတွက် အမြတ်ငွေ၏ 1% ကို ကျန်းမာရေး၊ ပညာရေးနှင့် နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေးတို့ အတွက် အသုံးပြုသွားမည် ဖြစ်ပါသည်။

ကျွန်းမာရေး	ဝန်ထမ်းများ ကျွန်းမာရေး စောင့်ရှောက်မှု	၀.၅ %
ပညာရေး	ပညာရေးကဏ္ဍ မြှင့်တင်ရေးနှင့် လူ့အခွင့်အရေး အသိပညာပေးခြင်း	၀.၅ %
နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေး	ဒေသတွင်း လိုအပ်သကဲ့သို့ လျှင်မြန်ခြင်း	၁ %



စက်ရုံ၏ဆောင်ရွက်ချက်များ



Tae Hyun (Myanmar) Industry Company Limited ၏ လျှပ်စစ်သုံးစွဲမှုအတွက်ပြင်ဆင်ထားရှိမှု



Tae Hyun (Myanmar) Industry Company Limited ၏ မီးဘေးအန္တရာယ်အတွက်ပြင်ဆင်ထားရှိမှုများ



စက်ရုံအတွင်းအမှိုက်စွန့်ပစ်မှုအခြေနေများ နှင့် ပန်ထမ်းများအတွက်အိပ်သာထားရှိမှုများ

*Thank You for Your Patient
Attention!*