

FINELINE COMPANY LIMITED

Initial Environmental Examination

MANUFACTURING OF VARIOUS KINDS OF BAGS ON CMP BASIS

Prepared by:



MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED

Date: 09-Aug-22



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Date: 9.8.2022

Attention: Dear Director

Environmental Conservation Department

Subject: Initial Environmental Examination (IEE) Report in respect of the Manufacturing of Various Kinds of Bags on CMP Basis by Fineline Company Limited.

IEE 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.

A circular blue ink stamp is positioned above a handwritten signature. The stamp contains the text "MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED" around the perimeter, with "No....." and "Date....." in the center. Below the signature, the name "LIN HTET SEIN" and the title "DIRECTOR" are printed in blue ink. At the bottom, the company name "MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED." is printed in a bold, blue, all-caps font.

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Date: 9.8.2022

Dear: Director

Environmental Conservation Department

Nay Pyi Taw

Subject: Initial Environmental Examination (IEE) Report in respect of the Manufacturing of Various Kinds of Bags on CMP Basis

We refer to the captioned IEE 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.

Fineline Company Limited will at all times comply fully with all commitment and obligations in the IEE report.

We acknowledge and understand that

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Lists of Abbreviation

1. CEMP = Construction Environmental Management Plan
2. CSR = Corporate Social Responsibility
3. EMP = Environmental Management Plan
4. EIA = Environmental Impact Assessment
5. ECD = Environmental Conservation Department
6. ECC = Environmental Compliance Certificate
7. EMoP = Environmental Monitoring Plan
8. GIIP = Good International Industry Practices
9. HSE = Health, Safety and Environment
10. IEE = Initial Environmental Examination
11. IFC = International Finance Corporation
12. NEQG = National Environmental Quality (Emission) Guidelines
13. MIC = Myanmar Investment Commission
14. MOECAF = Ministry of Environmental Conservation and Forestry
15. MONREC = Ministry of Natural Resources and Environmental Conservation
16. OEMP = Operation Environmental Management Plan
17. OSHA = Occupational Safety and Health Administration
18. PPE = Personal Protective Equipment
19. WHO = World Health Organization
20. YCDC = Yangon City Development Committee
21. YESB = Yangon City Electricity Supply Board
22. YCDC = Yangon City Development Committee
23. ENV Team = Environmental Team
24. IND Team = Industrial Solution Team
25. Sq meter = Square meter
26. % = Percentage
27. °C = Degree Celsius
28. BOD = Biochemical Oxygen Demand
29. COD = Chemical Oxygen Demand
30. CO = Carbon Monoxide
31. CO₂ = Carbon Dioxide
32. NO₂ = Nitrogen Dioxide
33. VOC = Volatile Organic Compound
34. O₃ = Ozone
35. dB (A) = Decibel Unit
36. MT = Metric Ton
37. Kt = Kilo Ton
38. kWh = Kilo Watt Hour
39. km = Kilo Meter
40. PM = Particulate Matter
41. ppm = Part Per Million

အစီရင်ခံစာအကျဉ်းချုပ်

နိဒါန်း

လူတိုင်းသည် သန့်ရှင်းပြီး ကျန်းမာသည့် နေရာတွင်နေထိုင်လိုကြသည်။ ယခုအချိန်တွင် ကမ္ဘာ့မြေ၏အဓိက စိုးရိမ်ပူပန်မှုမှာ ပတ်ဝန်းကျင် ပြောင်းလဲမှုဖြစ်စဉ်များကြောင့်ဖြစ်သည်။ အဘယ်ကြောင့်ဆိုသော် လူသားတို့၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအပေါ် ပေါ့ဆမှုကြောင့်ဖြစ်သည်။ ထို့ကြောင့် သဘာဝပတ်ဝန်းကျင် ထိခိုက်မှုမဖြစ်စေရေး၊ ရေရှည်စဉ်ဆက်မပြတ် တိုးတက်ကောင်းမွန်ရေးအတွက် စနစ်ကျသော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်ရှိရန်လိုအပ်ပါသည်။ ထို့ကြောင့် Fineline Company Limited ၏ ထုတ်လုပ်မှုလုပ်ငန်းအတွက် ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာ (IEE) ကို အကောင်အထည်ဖော်ခဲ့ပါသည်။ IEE ၏ အဓိက ရည်ရွယ်ချက်မှာ ညစ်ညမ်းမှုထိန်းသိမ်းရေး စွန့်ပစ်ပစ္စည်းလျှော့ချရေးနှင့် စွန့်ပစ်ပစ္စည်းများကို ပြန်လည်အသုံးပြုရေး အစီအစဉ်များကို အလေးထားဖော်ပြထားပြီး၊ စက်မှုလုပ်ငန်းဆိုင်ရာ တိကျသော ထိန်းချုပ်မှု အစီအမံများအပြင် အခြားအဆိုပြုထားသည့် စက်မှုလုပ်ငန်းသည် အောက်ပါလမ်းညွှန်ချက်များကို လိုက်နာသင့်သည်။

အဆိုပြုလုပ်ငန်းသည် CMP စနစ်ဖြင့် အိတ်အမျိုးမျိုး ချုပ်လုပ်ခြင်းလုပ်ငန်းအတွက် ရင်းနှီးမြှုပ်နှံသော ကုမ္ပဏီဖြစ်ပါသည်။ ရင်းနှီးမြှုပ်နှံမှုလိုင်စင်ကို ၂၀၂၀ ပြည့်နှစ်၊ ဖေဖော်ဝါရီလ၊ ၂၁ ရက်နေ့တွင် (ထောက်ခံချက်အမှတ်- ရကတ ၃၆၄/၂၀၂၀) ဖြင့် ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီမှ ရရှိပြီးဖြစ်ပါသည်။ လုပ်ငန်းလည်ပတ်ရန်အတွက် မြန်မာနိုင်ငံသယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဝန်ကြီးဌာန (MONREC) ၏ အတည်ပြုချက်ရယူရန် လိုအပ်ကြောင်း ကော်မရှင်မှ မှာကြားခဲ့ပါသည်။

ထို့ကြောင့် မြန်မာနိုင်ငံ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂)အရ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာ (IEE) ပြုလုပ်ရန်လိုအပ်ကြောင်း ၂၀၂၂ ခုနှစ်၊ ဇွန်လ၊ ၁၀ ရက်နေ့တွင် စာအမှတ်၊ ရက/EIA/ ၅(၂) (၁၅၀၆/၂၀၂၂)ဖြင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန ရန်ကုန်တိုင်းဒေသကြီးမှ သဘောထားမှတ်ချက် ရရှိပြီးဖြစ်ပါသည်။ ထို့ကြောင့် IEE အစီအရင်ခံစာရေးဆွဲရန် တတိယအဖွဲ့အစည်းဖြစ်သော Myanwei Environmental Solutions Company Limited မှ တာဝန်ယူရေးဆွဲခဲ့ပါသည်။

ရင်းနှီးမြှုပ်နှံသူ၏ အချက်အလက်

ရင်းနှီးမြှုပ်နှံသူ အမည်	Mr. Yang Xu
ID No.:	EJ0760346
နိုင်ငံသား	တရုတ်နိုင်ငံသား
မှတ်ပုံတင်သွင်းသည့် လိပ်စာ	Dongyi Road Room 601, Building 15, No.150, PanYu District, Guangzhou City, Guadgdong Province, China.
Email:	954824309@qq.com

အဆိုပြုထားသော စီမံကိန်း၏ အဓိကလက္ခဏာများ

အဆိုပြုထားသော စီမံကိန်း	CMP စနစ်ဖြင့် အိတ်အမျိုးမျိုးချုပ်လုပ်ခြင်းလုပ်ငန်း
ရင်းနှီးမြုပ်နှံမှုပုံစံ	ရာနှုန်းပြည့်နိုင်ငံခြားသားရင်းနှီးမြုပ်နှံမှု
ရှယ်ယာပုံစံ	အစုရှယ်ယာ
မြေနေရာပုံစံ	စက်မှုဇုန်မြေ
အဆိုပြုရင်းနှီးမြုပ်နှံမှုကာလ	နှစ် ၃၀
စုစုပေါင်းမြေကွက်ဧရိယာ	၂.၃၈၈ ဧက (၉၆၆၃.၈၉ စတုရန်းမီတာ)
အဆောက်အဦအရေအတွက်	တစ်ထပ်စက်ရုံအဆောက်အဦး (၉၆၆၃.၈၉ စတုရန်းမီတာ)
တည်ဆောက်မှုကာလ	၁ နှစ်
စီမံကိန်း တည်နေရာ	မြေကွက်အမှတ် ၁၀၇၊ မြေတိုင်းရပ်ကွက်အမှတ်-သီလဝါစက်မှုဇုန်၊ သန်လျင်ကျောက်တန်းမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး။
ဆက်သွယ်ရန် ဖုန်းနံပါတ်	Ma Lin (HR Manager) 09-404246963

အဆိုပြုလုပ်ငန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်ကို Myanwei Environmental Solutions Co., Ltd. မှ တာဝန်ယူ ရေးဆွဲထားပါသည်။

ဥပဒေနှင့် မူဝါဒဆိုင်ရာ အချက်အလက်များ

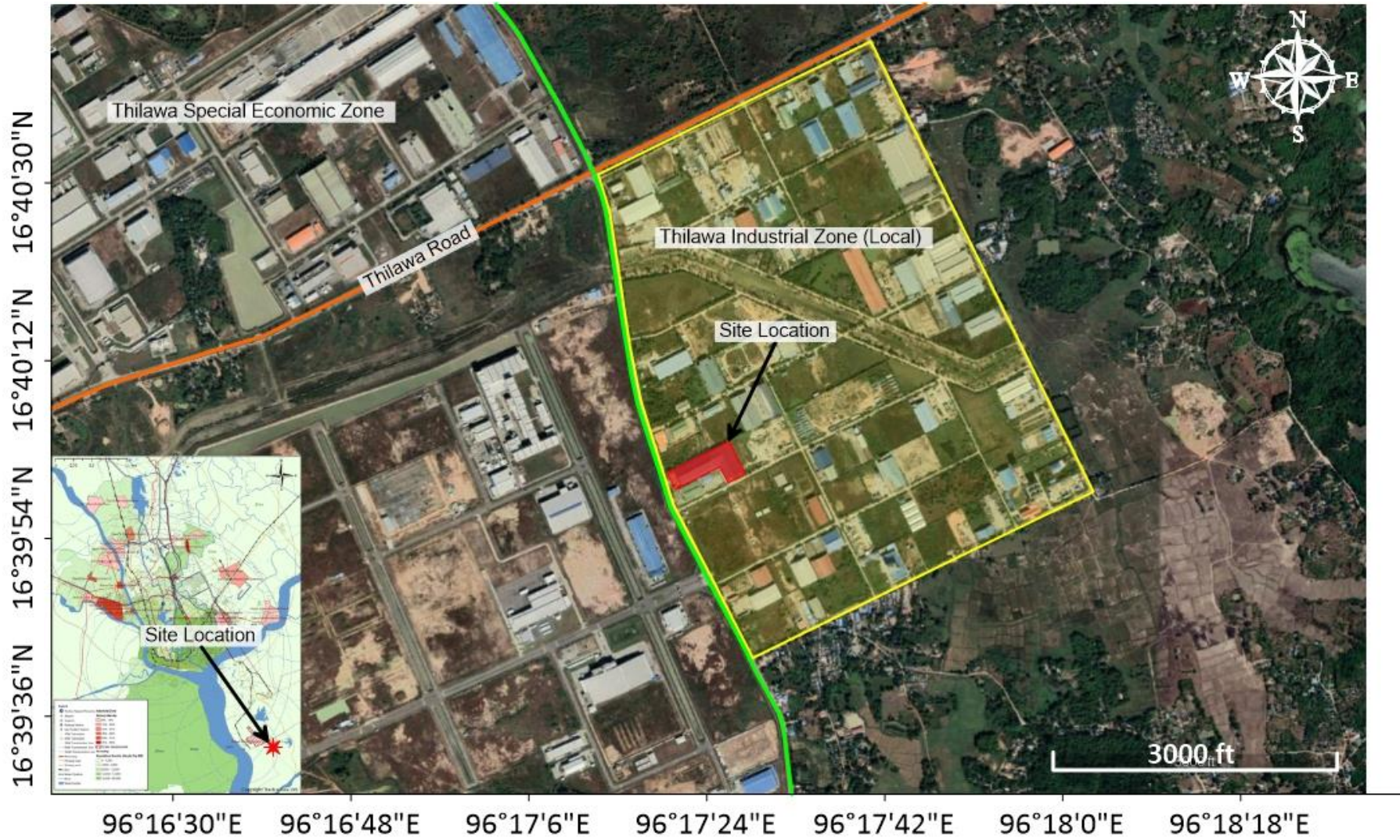
ဥပဒေနှင့် နည်းဥပဒေ အခန်းတွင် MONREC မှ ထုတ်ပြန်ထားသည့် ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်းများ၊ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များအပြင် စက်ရုံနှင့်ဆက်စပ်သက်ဆိုင်နေပြီး လိုက်နာရမည့် ဥပဒေနှင့် နည်းဥပဒေများ၊ ဒေသတွင်း သို့မဟုတ် အပြည်ပြည်ဆိုင်ရာ သဘာဝပတ်ဝန်းကျင်နှင့် 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. Myanmar Insurance Law (1993)
11. Payment of Wages Law (2016)
12. Yangon City Development Committee Law (2018)
13. The Amended Law for Factories Act, 1951 (2016)
14. The Private Industrial Enterprise Law, 1990
15. The Export and Import Law (2012)
16. The Prevention of Hazard from Chemical and Related Substances Law, 2013
17. Underground Water Act
18. Myanmar Fire Brigade Law (2015)
19. The Electricity Law (2014)
20. Labor Dispute Settlement Law (28 March 2012 replacing 1929 version)
21. The Social Security Law (2012)
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

Fineline Company Limited မြေကွက်အမှတ် ၁၀၇၊ မြေတိုင်းရပ်ကွက်အမှတ်-သီလဝါစက်မှုဇုန်၊ သန်လျင်ကျောက်တန်းမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး တွင်တည်ရှိပြီး ၂.၃၈၈ ဧက (၉၆၆၃.၈၉ စတုရန်းမီတာ)ကျယ်ဝန်းပါသည်။



စက်ရုံ၏ တည်နေရာပြမြေပုံ



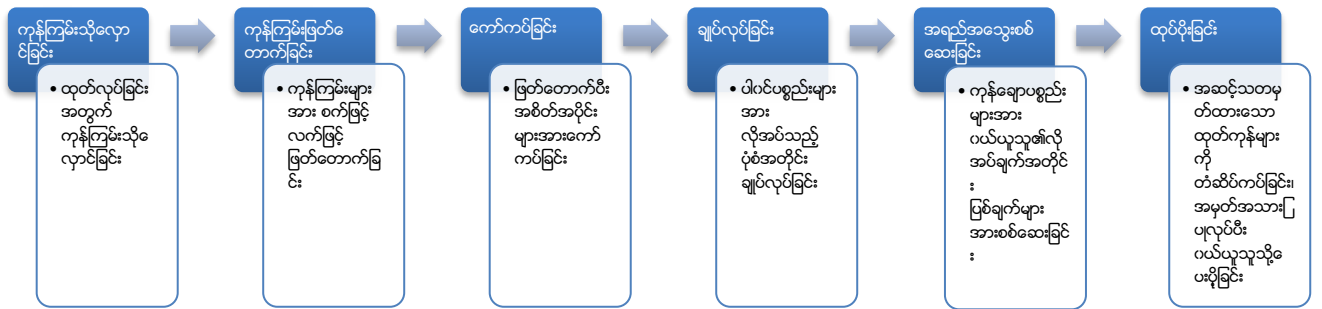
1.Underground Water Tank 2.Generator & Transformer Room 3. Security Gate 4.Dormitory 5.Fire Safety Pump
6.Products Warehouse 7.Canteen 8.Toilets 9.Office Room 10.Production Area 11.Solid Waste Storage Area

စက်ရုံ၏ တည်ဆောက်ပြမြေပုံ



စက်ရုံ၏ပတ်ဝန်းကျင်ပြမြေပုံ

Fineline Company Limited ၏ အဓိက ကုန်ကြမ်းမှာ Pu Material, Pvc Material, Leather, Canvas, Nylon နှင့် အခြားဆက်စပ်ပစ္စည်းများဖြစ်ပြီး တရုတ်နိုင်ငံမှ အဓိကမှာယူတင်သွင်းပါသည်။ ကုန်ကြမ်းများကို ကုန်ကြမ်းသိုလှောင်ခန်းတွင် စနစ်တကျ သိုလှောင်ထားရှိပါသည်။ Fineline Company Limited ၏ အဓိက ထုတ်ကုန်မှာ အိတ်အမျိုးမျိုးဖြစ်ပါသည်။



ထုပ်လုပ်ပုံ လုပ်ငန်းအဆင့်ဆင့်

လုပ်ငန်းမှ ပထမနှစ်မှ ၁၀ နှစ်အတွင်း အိတ်အလုံးရေ (၁၇,၇၀၀,၀၀၀) မှ (၁၉,၄၇၀,၀၀၀)အထိ တိုးမြှင့်ထုတ်လုပ်သွားမည်ဖြစ်သည်။ နိုင်ငံခြားသားလုပ်သား (၁၀)ဦး နှင့် နိုင်ငံသား (ပြည်တွင်း)လုပ်သား (၉၇၂) ဦးဖြင့် ဆောင်ရွက်သွားမည်ဖြစ်သည်။



Warehouse



Cutting Area



Gluing Area



Sewing Area



Finishing Area



Packing Area



ထုတ်ကုန်ဓာတ်ပုံ

အနီးပတ်ဝန်းကျင်အခြေအနေဆိုင်ရာ ဖော်ပြချက်

လက်ရှိပတ်ဝန်းကျင်၏ ပတ်ဝန်းကျင်ဆိုင်ရာအချက်အလက်၊ ပတ်ဝန်းကျင်အရည်အသွေး တိုင်းတာခြင်းများနှင့် သက်ရောက်မှုများကို ၂၀၂၂ ခုနှစ်၊ မေလ၊ ၃ ရက်နေ့တွင် ပြုလုပ်ခဲ့ပါသည်။ ထို့အပြင် စက်ရုံတည်နေရာနှင့် သက်ဆိုင်သည့် အချက်အလက်များဖြစ်သော လူမှုစီးပွားအခြေအနေ၊ ရူပပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များ၊ ဇီဝပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များ၊ ရာသီဥတုဆိုင်ရာ အချက်အလက်များ အစရှိသည့်များကို ရန်ကုန်တိုင်းဒေသကြီး၊ သန်လျင်ကျောက်တန်းမြို့နယ်မှ တရားဝင်ပြဌာန်းထားသော မြို့နယ်ဆိုင်ရာ အချက်အလက်များမှ ကိုးကားဖော်ပြထားပါသည်။

အဆိုပြုလုပ်ငန်း၏စစ်တမ်းကောက်ယူမှု

အမျိုးအစား	ရလဒ်
ရာသီဥတုအခြေအနေ	
အပူချိန်	၃၆.၃ °C
စိုထိုင်းဆ	၄၉.၄ %
ဆူညံသံ	
ထုတ်လုပ်မှုဧရိယာအတွင်း	၆၈.၈၀၇ dBA
လေထုအရည်အသွေး	
PM 10	၂၅.၈၇ µg/m ³
PM 2.5	၂၁.၁၈ µg/m ³
SO ₂	၁၁.၇ µg/m ³
NO ₂	၂၂ µg/m ³
O ₃	၉.၁ µg/m ³
CO	၃၅၄.၆ µg/m ³
အလင်းရောင်တိုင်းတာမှု	
ကုန်ကြမ်းသိုလှောင်ထားရှိမှု ဧရိယာ	၃၉၄ Lux
ဖြတ်တောက်ခြင်း ဧရိယာ	၁၀၅၄ Lux
ကော်ကပ်ခြင်းဧရိယာ	၅၈၄ Lux
ချုပ်လုပ်ခြင်း ဧရိယာ	၆၂၄ Lux
အရည်အသွေး စစ်ဆေးခြင်း ဧရိယာ	၁၁၉၉ Lux
ကုန်ချော ထုတ်ပိုးခြင်း ဧရိယာ	၉၉၆ Lux

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 လုပ်ငန်းခွင်ပြောင်းလဲမှုဖြစ်စေနိုင်သော	အသင့်အတင့်နှင့် အနည်းငယ် လုပ်ငန်းခွင်ပြောင်းလဲမှုဖြစ်စေနိုင်သော	မြင့်မားနှင့် သိသာစွာလုပ်ငန်းခွင်ပြောင်းလဲမှုဖြစ်စေနိုင်သော	အလွန်မြင့်မားနှင့် အမြဲတမ်းလုပ်ငန်းခွင်ပြောင်းလဲမှုဖြစ်စေနိုင်သော
အချိန်	၀-၁ နှစ်	၂-၅ နှစ်	၆-၁၅ နှစ်	လုပ်ငန်း လည်ပတ်စဉ် ကာလတစ်လျှောက်	လုပ်ငန်းပိတ်သိမ်းခြင်းကာလအထိ
ကျယ်ပြန့်မှု	လုပ်ငန်းခွင်အတွင်း	ဒေသအတွင်း	မြို့နယ်အတွင်း	နိုင်ငံအတွင်း	နိုင်ငံတကာအတွင်း
ဖြစ်နိုင်ချေ	လုံးဝမဖြစ်နိုင်သော	မဖြစ်နိုင်သော	ဖြစ်နိုင်သော	ဖြစ်နိုင်ချေမြင့် သော	အတိအကျ

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

ပတ်ဝန်းကျင်ထိခိုက်မှုကိုအောက်ပါအတိုင်း ခွဲခြားနိုင်သည်။

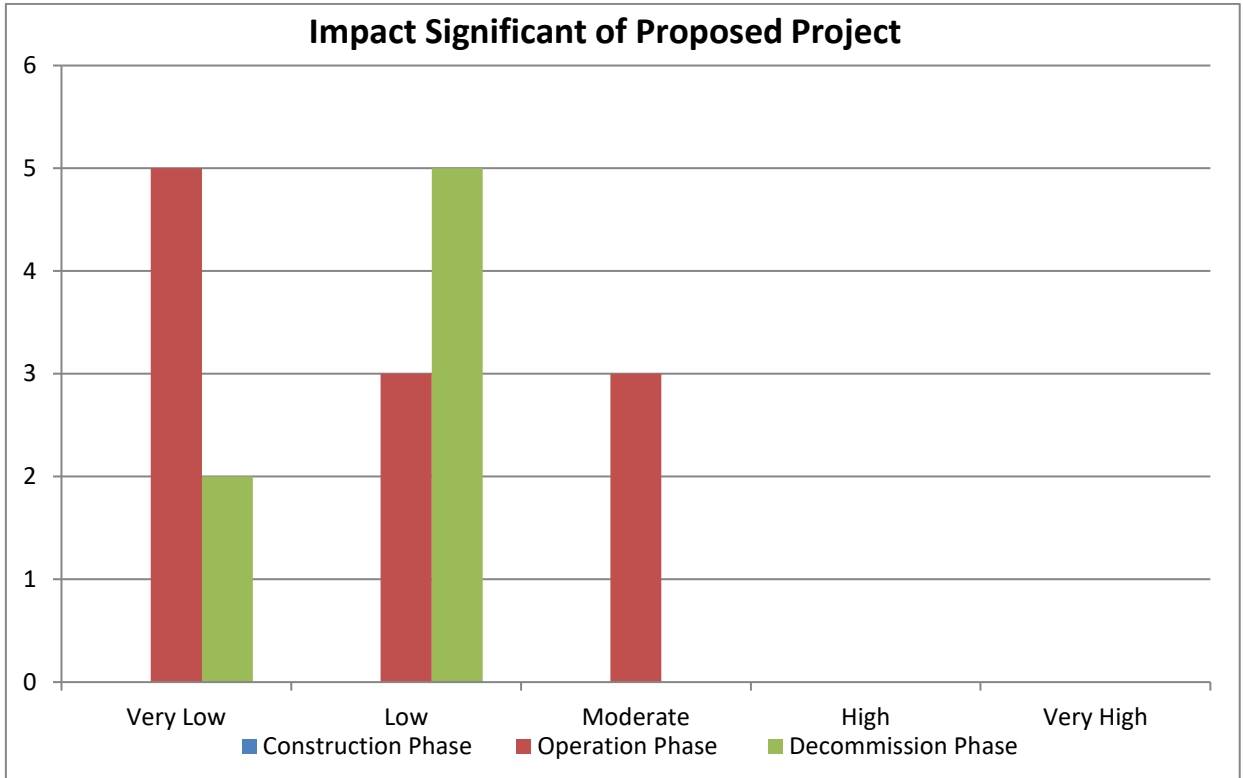
သတ်မှတ်ချက်	ထိခိုက်မှုအဆင့်
<၁၅	အလွန်နိမ့်
၁၅ - ၂၉	နိမ့်
၃၀ - ၄၄	အလယ်အလတ်
၄၅ - ၅၉	မြင့်
၆၀	အလွန်မြင့်

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
လေထုအရည်အသွေး	<ul style="list-style-type: none"> • သယ်ယူပို့ဆောင်ရေးသုံး မော်တော်ယာဉ်တို့ကြောင့် ဖုန်မှုန့်နှင့် ဖန်လုံအိမ်ဓါတ်ငွေ့ထွက်ခြင်း • လုပ်ငန်းခွင်အတွင်းဖုန်မှုန့် ထွက်ခြင်းအရေးပေါ်သုံး မီးစက်မှာ စွန့်ထုတ်အခိုးအငွေ့ ထွက်ခြင်း 	<ul style="list-style-type: none"> • မီးစက် တို့တွင် မီးခိုးခေါင်းတိုင် တပ်ဆင်ခြင်းဖြင့် အခိုးအငွေ့ ကြောင့် ပတ်ဝန်းကျင် ထိခိုက်မှုကို လျော့ချခြင်း၊ • စက်ရုံအတွင်းနှင့် အနီး အနားတွင် သစ်ပင်ပန်းမံ စိုက်ပျိုးခြင်းဖြင့် carbon ထွက်ရှိမှုကို လျော့ချပေးခြင်း၊ • စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း။
မြေဆီလွှာညစ်ညမ်းမှု	<ul style="list-style-type: none"> • မတော်တဆ စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှ ဆီယိုဖိတ်ခြင်း 	<ul style="list-style-type: none"> • ထိခိုက်မှုလျော့ချရန်မလိုပါ။
ရေအရည်အသွေး	<ul style="list-style-type: none"> • မီးဖိုချောင်သုံးမှထွက်ရှိခြင်း 	<ul style="list-style-type: none"> • ထိခိုက်မှုလျော့ချရန်မလိုပါ။
ဆူညံသံ နှင့် တုန်ခါမှု	<ul style="list-style-type: none"> • မီးစက်၊ အထည်ချုပ်စက် နှင့် မော်တော် ယာဉ် အသုံးပြုမှုကြောင့် ပတ်ဝန်းကျင် ဆူညံမှု 	<ul style="list-style-type: none"> • ဆူညံသံများသောစက်ရုံလုပ်ငန်းနေရာများတွင် တစ်ကိုယ်ရည်သုံး ကာကွယ်ရေးပစ္စည်းများ တပ်ဆင်အသုံးပြုစေခြင်း။ • အသံထုတ်လွှတ်မှုနည်းသော စက်ပစ္စည်းများ အသုံးပြုခြင်းနှင့် မီးစက်ခန်း၊ ကွန်ပရက်ဆာခန်းများ သီးသန့်ထားရှိစေခြင်း။
ကုန်းနေ အပင်နှင့် သတ္တဝါများ၊ ရေနေသတ္တဝါများ	<ul style="list-style-type: none"> • အိတ်အမျိုးမျိုး ချုပ်လုပ်ခြင်း လုပ်ငန်း 	<ul style="list-style-type: none"> • ထိခိုက်မှုလျော့ချရန်မလိုပါ။
မီးဘေးအန္တရာယ်	<ul style="list-style-type: none"> • ကုန်ကြမ်းသိုလှောင်မှု နှင့် လျှပ်စစ်သုံးစွဲ ပေါ့လျော့မှု 	<ul style="list-style-type: none"> • စက်ရုံ၏မီးဘေးအန္တရာယ်ကာကွယ်ရန်အတွက် မီးသတ်ပူး၊ မီးသတ်ပိုက်၊ မီးသတ်ခေါင်း များထားရှိခြင်း။ • မီးသတ်ဆိုင်ရာစက်ပစ္စည်းကိရိယာများကိုပုံမှန်စစ်ဆေးခြင်း၊ အရေးပေါ်အခြေနေအတွက် မီးသတ်ရေကန်အဆင်သင့်ထားရှိခြင်း။ • စက်ရုံအတွင်းအရေးပေါ်အချက်ပေးစနစ်များထားရှိခြင်း။ • အရေးပေါ်ထွက်ပေါက်များတစ်လျှောက်တွင် ကုန်ပစ္စည်းများပိတ်ဆို့ခြင်းမရှိအောင်ရှင်းလင်းထားရှိခြင်း။
လုပ်ငန်းခွင် ဘေးအန္တရာယ်	<ul style="list-style-type: none"> • စက်ပစ္စည်းများလည်ပတ်ခြင်းကြောင့် မတော်တဆထိခိုက်မှုများ ဖြစ်ပေါ်နိုင်ခြင်း။ • ပစ္စည်းတင်ချုပ်လုပ်ခြင်း၊ ဖြတ်တောက်ခြင်း၊ ရောနှောခြင်း၊ ဖိနှိပ်ခြင်း၊ ထုတ်ပို့ခြင်း။ 	<ul style="list-style-type: none"> • အရေးပေါ်အခြေအနေများအတွက် စက်ပစ္စည်းကိုင်တွယ်မှုသင်တန်းပေးခြင်း၊ ကြက်ခြေနီသင်တန်းပေးခြင်း၊ မီးသတ်သင်တန်းပေးခြင်း။ • လုပ်ငန်းခွင်တွင်း အလုပ်သမားများ အလင်းရောင်ကောင်စွာရရှိစေရန်နှင့် အမြင်အာရုံမထိခိုက်စေရန် အလင်းရောင်များကို

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
	<ul style="list-style-type: none"> ရေခဲခဲသုံးမီးပူများကြောင့် မတော်တဆထိခိုက်မှုများ ဖြစ်ပေါ်နိုင်ခြင်း။ 	<ul style="list-style-type: none"> လုံလောက်စွာထားရှိခြင်း။ အလုပ်သမားများအတွက်တစ်ကိုယ်ရေကာကွယ်ရေးသုံးပစ္စည်းများဖြစ်သည့် နားကြပ်၊ လက်အိတ်၊ ဦးထုပ်၊ မျက်မှန်များ အသုံးပြုစေခြင်း။ လျှပ်စစ်အန္တရာယ်မဖြစ်စေရန် နှင့် ပြုပြင်ထိန်းသိမ်းမှုများ ပြုလုပ်ရန်အတွက် ဝန်ထမ်းထားရှိ၍ ပုံမှန်စစ်ဆေးခြင်း။
ကျန်းမာရေး	<ul style="list-style-type: none"> အရေးပေါ် မီးစက်များမှ ဆူညံသံများထွက်ပေါ်လာခြင်း။ 	<ul style="list-style-type: none"> လုပ်သားများအတွက်ကျန်းမာရေးမထိခိုက်စေရန် ရေမြောင်းများကိုစနစ်တကျထားရှိခြင်း။ လုပ်သားများအတွက် ရှစ်နာရီအတွင်းလက်ခံနိုင်သည့်အာမြင့်ဆုံး ဆူညံမှု နှုန်းမှာ 90dB(A) ဖြစ်သည်။ အသံဆူညံမှုအမြင့်ဆုံးနေရာများတွင် နားကြပ်များ တပ်ဆင်စေခြင်း။
စွန့်ပစ်အပိုင်အခဲ	<ul style="list-style-type: none"> ထုတ်လုပ်ရာတွင် ကျန်ရှိသော ပိတ်စ အပိုင်းအစများ။ မီးဖိုချောင်နှင့် ရုံးတွင်းစွန့်ပစ်ပစ္စည်းများ 	<ul style="list-style-type: none"> စက်ရုံအတွင်း အမှိုက်ပုံးများထားရှိခြင်း။ သတ်မှတ်ထားသောနေရာတွင် အမှိုက်စို၊ အမှိုက်ခြောက်များခွဲခြားစွန့်ပစ်ခြင်း။ အမှိုက်များကို ရန်ကုန်စည်ပင်သာယာရေးကော်မတီနှင့် ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။
စွန့်ပစ်အရည်	<ul style="list-style-type: none"> နေအိမ်၊ စားသောက်ဆောင် တို့မှစွန့်ထုတ်ရေ နှင့် မိလ္လာကန်စနစ် 	<ul style="list-style-type: none"> ဆီကန်၊ မိလ္လာကန်များ ကိုပုံမှန်စစ်ဆေးခြင်း၊ သန့်စင်ခြင်းများပြုလုပ်ခြင်းဖြင့် စွန့်ပစ်အရည်များ စိမ့်ဝင်မှုများကိုလျော့ကျစေနိုင်ခြင်း။
အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများ	<ul style="list-style-type: none"> စက်များမှ ဆီယိုစိမ့်မှုများ၊ မော်တော်ယာဉ်များပြုပြင်ထိန်းသိမ်းမှုက ထွက်ရှိသည့်အမှိုက်များ 	<ul style="list-style-type: none"> အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်းများသိုလှောင်မှု အားထိန်းသိမ်းခြင်း စစ်ဆေးခြင်း။ အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများကို ရန်ကုန်မြို့တော်စည်ပင်သာယာရေး ကော်မတီ (သို့မဟုတ်) လိုင်စင်ရ အမှိုက်စွန့်ပစ်ရေးဆိုင်ရာအဖွဲ့အစည်းများ (ဥပမာ DOWA or YCDC) နှင့်ချိတ်ဆက်၍စွန့်ပစ်ခြင်း။
သဘာဝဘေးအန္တရာယ် (ငလျင်၊ ရေကြီးရေလျှံ၊ မြေပြို၊ မုန်တိုင်း)		အရေးပေါ်အကြောင်းရင်းနှင့် အခြေအနေများအတွက် သက်ဆိုင်ရာမှတ်တမ်းများနှင့် ကရိယာများကို ထိန်းသိမ်းခြင်း

လုပ်ငန်းလည်ပတ်စဉ်ကာလတွင် သတ်မှတ်ချက်များမှာ အလယ်အလတ် သတ်မှတ်ချက် ၃ခု (အပိုင်အခဲစွန့်ပစ်ပစ္စည်း၊ မီးဘေးအန္တရာယ်၊ လုပ်ငန်းခွင်ဘေးအန္တရာယ်)၊ နိမ့် သတ်မှတ်ချက် ၃ခု (စွန့်ပစ်အရည်၊ လေထု၊ ဆူညံသံနှင့် တုန်ခါမှု) နှင့် အလွန်နိမ့်သတ်မှတ်ချက် ၅ခု (ဂေဟဗေဒ၊ ကျန်းမာရေး၊ မြေထည်ညစ်ညမ်းမှု၊ ရေထည်ညစ်ညမ်းမှု နှင့်အန္တရာယ်ရှိစွန့်ပစ်အမှိုက်) များနှင့် လုပ်ငန်းပိတ်သိမ်းစဉ်ကာလတွင် သတ်မှတ်ချက်များမှာ

အလွန်နိမ့် ၂ခု (စွန့်ပစ်အစိုင်အခဲနှင့် အန္တရာယ်ရှိစွန့်ပစ်အမှိုက်) နှင့် နိမ့်သတ်မှတ်ချက် ၅ခု (လေထုအရည်အသွေး၊ ရေထုညစ်ညမ်းမှု၊ မြေဆီလွှာညစ်ညမ်းမှု၊ ဆူညံသံနှင့် လုပ်ငန်းခွင်ဘေးအန္တရာယ်) တို့တွေ့ရှိရပြီး ၎င်းအားပုံနှင့်နှိုင်းယှဉ်ဖော်ပြထားပါသည်။



အဆိုပြုလုပ်ငန်း၏ ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများ နှိုင်းယှဉ်ပြပုံ

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု ဆောင်ရွက်ချက်

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

Fineline Company Limited ၏ လူထုအကျိုးပြုလုပ်ငန်းများဆောင်ရွက်မည့် အစီအစဉ်

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

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

- ၁။ လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်ဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်
- ၂။ ဆူညံသံဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်
- ၃။ မီးဘေးအန္တရာယ် စီမံခန့်ခွဲမှုအစီအစဉ်
- ၄။ လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေးဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်
- ၅။ အစိုင်အခဲစွန့်ပစ်ပစ္စည်း စီမံခန့်ခွဲမှုအစီအစဉ်
- ၆။ စွန့်ပစ်အရည် (ရေဆိုး) စီမံခန့်ခွဲမှုအစီအစဉ်
- ၇။ အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်း စီမံခန့်ခွဲမှုအစီအစဉ်
- ၈။ အရေးပေါ်အခြေအနေဆိုင်ရာ စီမံခန့်ခွဲမှုအစီအစဉ်
- ၉။ အရေးပေါ်တုံ့ပြန်မှုနှင့် သဘာဝဘေးအန္တရာယ်စီမံခန့်ခွဲမှုအစီအစဉ်
- ၁၀။ သဘာဝပတ်ဝန်းကျင်ဆိုင်ရာ စောင့်ကြပ်ကြည့်ရှုခြင်းနှင့် အစီရင်ခံခြင်း
- ၁၁။ သင်ကြားပို့ချမှု အစီအစဉ်

သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း အစီအစဉ်တွင် စက်ရုံ၏ IEE အစီရင်ခံစာ အကြောင်းကို ရှင်းလင်းတင်ပြခြင်းဖြစ်သည်။ တွေ့ဆုံပွဲကို နိုင်ငံရေး အခြေအနေများကြောင့်လည်းကောင်း ကျန်းမာရေးဆိုင်ရာ Covid - 19 စည်းကမ်း ချက်များကြောင့် ၉ ရက်၊ ဩဂုတ်လ၊ ၂၀၂၂ ခုနှစ်တွင် လူမှုကွန်ယက်မှပင် ကြေညာခြင်းပြုလုပ်ခဲ့ပါသည်။ အဆို ပါထုတ်ပြန်ကြေငြာခြင်းတွင် အဆိုပြုစက်ရုံဆိုင်ရာ အချက်အလက်များ၊ ပတ်သက်သည်များ အကျဉ်းချုံးပြီး တင်ပြထားပါသည်။ အဆိုပြုစီမံကိန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ အကျဉ်းကို ဤ https://drive.google.com/file/d/17Uc_uSKXtoudMr520GxfScnGR-0NxtEa/view?usp=drivesdk တွင် အသေးစိတ်ဝင်ရောက်ဖတ်ရှုနိုင်ပါသည်။

နိဂုံးနှင့် အကြံပြုချက်

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

အကြံပြုချက်များအရ-

- အစီရင်ခံစာတွင် ဖော်ပြထားသည့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် ကတိကဝတ်များကို စီမံကိန်း၏ သက်တမ်းတလျှောက်တွင် အကောင်အထည်ဖော် ဆောင်ရွက်ရမည်။
- အစီအစဉ်နှင့် အရည် စွန့်ပစ်ပစ္စည်းများကို ရန်ကုန်မြို့တော် စည်ပင်သာယာရေးကော်မတီ၏ စည်းကမ်းများအတိုင်း စွန့်ပစ်ရမည်။
- အလုပ်သမားများအား သင့်တော်သော သင်တန်းများပေးခြင်း၊ လုပ်ငန်းခွင်အတွင်း တစ်ကိုယ်ရည် ကာကွယ်ရေး ပစ္စည်းများ အသုံးပြုစေခြင်းများ ဆောင်ရွက်ရမည်။
- ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်များကို နေ့စဉ်၊ လစဉ်နှင့် နှစ်စဉ် လုပ်ငန်းခွင်အတွင်း လုပ်ဆောင်ရမည်။
- ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ် မှတ်တမ်းများကို သေချာသိမ်းဆည်း၍ တတိယအဖွဲ့အစည်း သို့ တင်ပြရမည်။
- ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒ လမ်းညွှန်ချက်များအတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာဆောင်ရွက်ရ မည်။

အချုပ်အားဖြင့်ဆိုသော် အဆိုပြုသူသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာနမှ ညွှန်ကြားလာသော အဆိုပြုချက်များ၊ အကြံပြုချက်များကို လိုက်နာဆောင်ရွက်ရမည်။ ထိရောက်သော ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှုကို အဆိုပြုသူမှ ဆောင်ရွက်ရမည်။ အဆိုပြုသူသည် ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒ လမ်းညွှန်ချက်များအတိုင်း လိုက်နာဆောင်ရွက်ရမည်။

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 Fineline Company Limited. The Initial Environmental Examination (IEE) aims at controlling pollution at source with available and affordable technology followed by treatment measures. Waste minimization and waste recycling measures are emphasized. In addition to the industry specific control measures, the proposed industry should adopt following guidelines.

The project is new investment for manufacturing of various kinds of bags on CMP Basis company from China. Yangon Region Investment Committee (YRIC) issued the project on 21 February 2020 with the Endorsement No. (YGN-364/2020). YRIC notified 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 Various Kinds of Bags on CMP basis under the name of Fineline Company Limited as a solely owned foreign investment from the China.

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 Initial Environmental Examination (IEE) to meet the environmental assessment requirements of Notification No. Yaka/ EIA/ 5(2) (1506/2022) on 10 June 2022. Therefore, Fineline Company Limited commissioned Myanwei Environmental Solutions Company Limited for IEE report study.

Information of Investor

Investor Name:	Mr. Yang Xu
ID No.:	EJ0760346
Citizenship:	Chinese
Address of Registration office:	Dongyi Road Room 601, Building 15, No.150, PanYu District, Guangzhou City, Guadgdong Province, China.
Phone No.	954824309@qq.com

Salient Features of the Proposed Project

Type of Proposed Business	Manufacturing of Various Kinds of Bags on CMP Basis
Type of investment	100% foreign investment
Type of Share	Ordinary Share

Type of land	Industrial Land
Total land area	2.388 acres (9663.89 sqm)
Total building area	One Storey Factory Buildings (9663.89 Sqm)
Land lease year	30 years
Construction period	1 year
Address	Plot No. 107, Myay Taing Block No.Thilawa Industrial Zone, Thanlyin-Kyauktan Towhship, Yangon Region.
Contact person	Ma Lin (HR Manager) 09-404246963

Includes the scope of the study of proposed project, IEE 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:

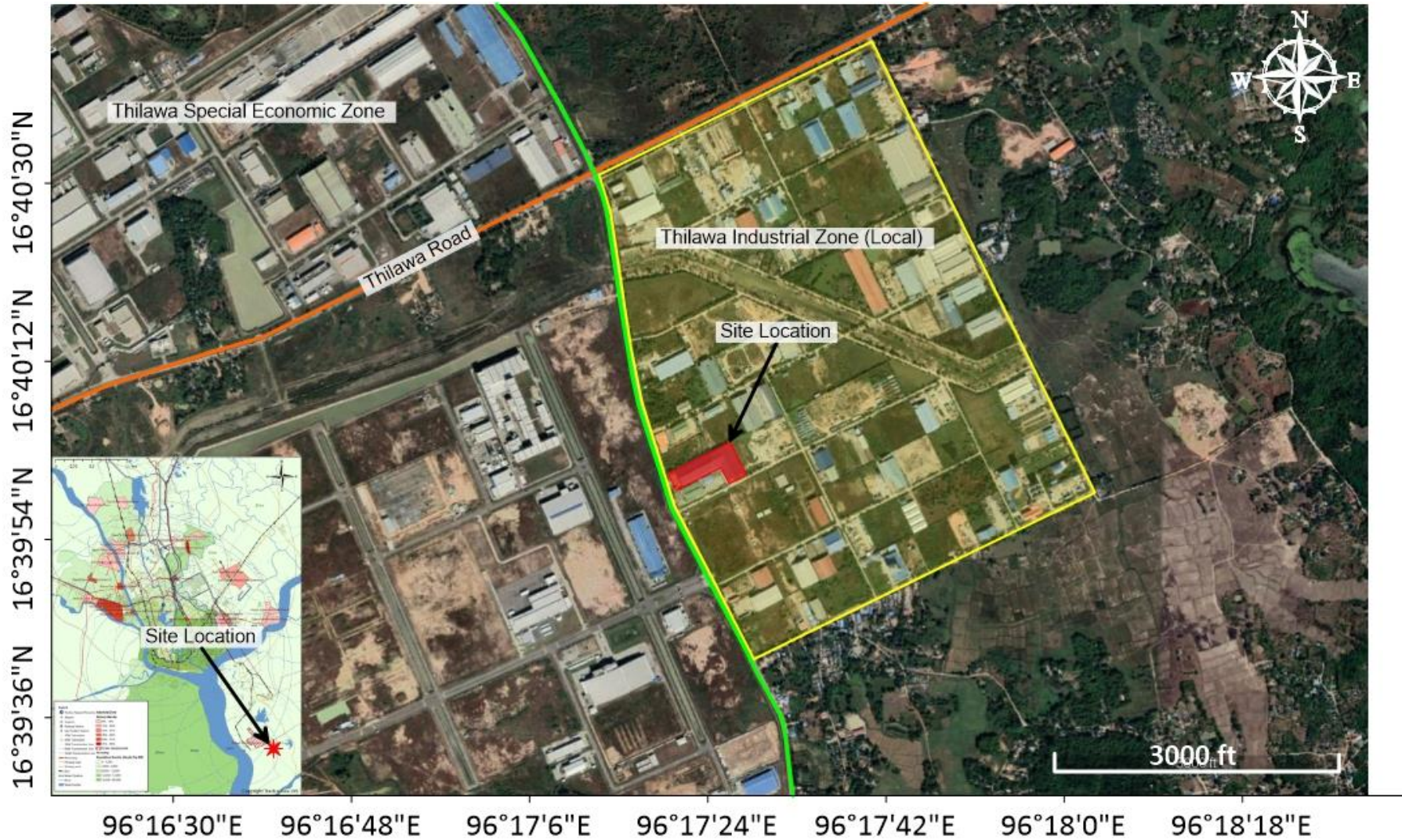
1. Constitution 2008
2. Environmental Conservation Law, 30 March 2012
3. Environmental Conservation Rules, 2014
4. Environmental Impact Assessment Procedure (December 2015)
5. National Environmental Quality (Emission) Guideline (NEQG) (December 2015)
6. National Environmental Policy of Myanmar (2019)
7. Foreign Investment Law, 2012
8. Foreign Investment Rule, 2013
9. Myanmar Investment Rule, 2017
10. Myanmar Insurance Law (1993)
11. Payment of Wages Law (2016)
12. Yangon City Development Committee Law (2018)
13. The Amended Law for Factories Act, 1951 (2016)
14. The Private Industrial Enterprise Law, 1990
15. The Export and Import Law (2012)
16. The Prevention of Hazard from Chemical and Related Substances Law, 2013
17. Underground Water Act
18. Myanmar Fire Brigade Law (2015)
19. The Electricity Law (2014)
20. Labor Dispute Settlement Law (28 March 2012 replacing 1929 version)
21. The Social Security Law (2012)
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. Fineline Company Limited is commitment and complied for environmental prevention and EMP.

Project Description

The proposed project locates at the coordinates of Latitude 16°40'00"N and Longitude 96°17'28"E. The total area of project site is 2.388 acres (9663.89 sqm). One storey building (9663.89 sqm) is used for operation. Main structure is designed into office area and QC department, sewing department, cutting department and iron department for production building and transformer room, generator room and water treatment plant are separated by main factory building structure.



Location Map of Proposed Project



1.Underground Water Tank 2.Generator & Transformer Room 3. Security Gate 4.Dormitory 5.Fire Safety Pump
6.Products Warehouse 7.Canteen 8.Toilets 9.Office Room 10.Production Area 11.Solid Waste Storage Area

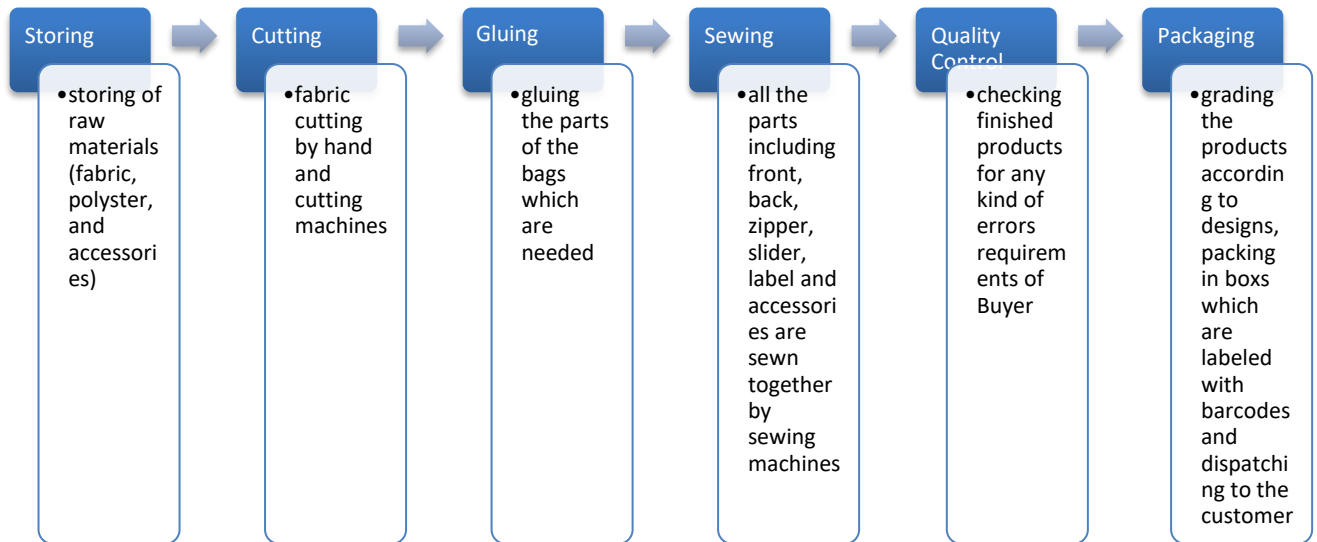
Factory Layout Map



Adjacent Location Map of Proposed Project

The main Raw Materials are Pu Material, Pvc Material, Leather, Canvas, Nylon and etc., which were imported from China.

The main product of the Fineline Company Limited factory is various kinds of bags. 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 provide lighting.



Warehouse



Cutting Area



Gluing Area



Sewing Area



Finishing Area



Packing Area

Production Process



Product Photos

Production rate of Finline Company Limited is produced between first year of operation and ten years operation as 17,700,000 to 19,470,000 pieces annually. It is required of work force 10 foreign technicians and 971 local employees for first year operation to 10 years operation.

Brief Description of Surrounding Environment

For environmental baseline, data were collected by onsite measurements analysis during operation phase on 3 May 2022. 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 Thanlyin-Kyauktan Township.

Survey Result in Proposed Project

Type	Result
Weather Condition	
Indoor temperature	36.3 °C
Humidity	49.4 (%)
Noise level	
Operation area	68.807 dBA
Air Quality	
PM 10	25.87 µg/m ³
PM 2.5	21.18 µg/m ³
SO ₂	11.7 µg/m ³
NO ₂	22 µg/m ³
O ₃	9.1 µg/m ³
CO	354.6 µg/m ³
Light	
Raw Materials Storage Area	394 Lux
Cutting Area	1054 Lux
Gluing Area	584 Lux
Sewing Area	624 Lux
Finishing Area	1199 Lux
Packing Arera	996 Lux

Risk Assessment and Mitigation Measure Plan

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
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.

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

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

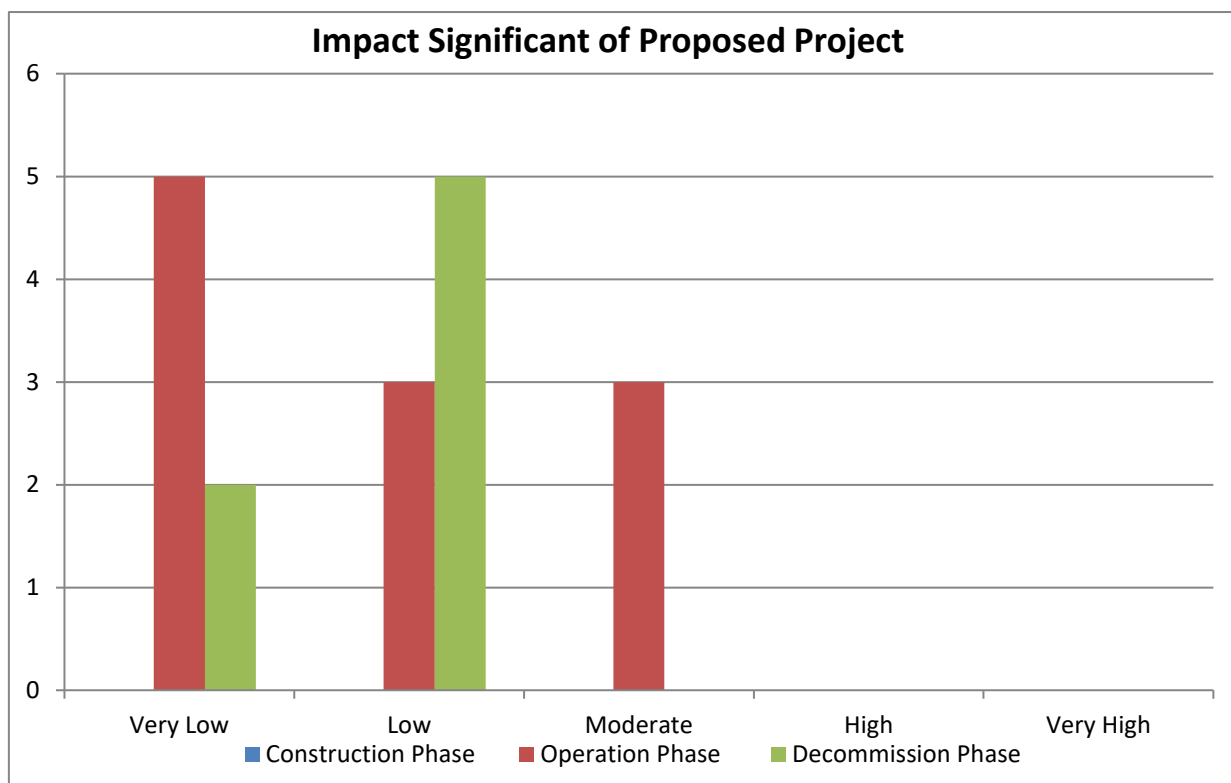
Environmental Impact	Project Activities	Mitigation Measures
Operation Phase		
Air	Dust and GHGs emission from vehicles used for transporting raw materials and final products Emission of smoke from emergency diesel generator and vehicle movement	To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. Ensuring vehicles, compressor and generator are well maintained. The factory has planted trees to reduce carbon emission and minimize air pollution
Soil	Engine oil leaks, spills at diesel storage and during fuel refueling	No mitigation measure
Water	Dormitory Cleaning and Kitchen	No mitigation measure

Environmental Impact	Project Activities	Mitigation Measures
Noise and vibration	Generating noise from the production machinery	Should be built individual room like as generator room Low noise equipment should be used Should be provided the noise covering equipment or personal protective equipment (PPE)
Flora and fauna on terrestrial and aquatic life	Operation of the bags factory	No Mitigation Measure
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.
Occupational Safety	Accidental cases cause by operating machines. Unloading, cutting, and packaging activities. Accidental cases of thermic fluid heater	First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.
Health	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 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.
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.
Liquid waste	Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory.	Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous waste	Used oil and lubricant discharged	Proper inspection and maintenance in storage of

Environmental Impact	Project Activities	Mitigation Measures
	from the maintenance of vehicles and machines.	hazardous waste. The hazardous wastes are transported by specially licensed carriers and disposed in a licensed facility (e.g., DOWA and YCDC)
Natural Disaster (Earthquakes, Floods, landslides and cyclone)		Preserve relevant records and equipment for the subsequent inquiry into the cause and circumstances of the emergency
Decommissioning Phase		
Air pollution	Decommissioning of buildings and related materials Transportation of demolished materials	Spray water twice a day Cover mesh trap around the 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	Systematically demolish the septic tanks.
Soil Contamination	Decommissioning of buildings and related materials Transportation of demolished materials	Manage the spillage of oil and diesel and sewage.
Noise Pollution	Decommission activities Transportation of demolished materials	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	Recyclable materials and dispose to the define areas.
Hazardous waste	Used lubricants from decommissioning vehicles and machines	Manage the disposal way of hazardous waste.
Occupational Health and Safety (Accidents, Injuries)	Decommissioning activities Transportation of demolished materials	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. Clean up excessive waste debris and liquid spills regularly. Use the third-party expert assisted by trained personnel to identify and remove hazardous materials.

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 3 moderate significance impact on human and waste generation (Fire, occupational safety and solid waste). 3 low significant impacts on environmental resources and waste (air, noise, vibration and liquid waste). 5 very low significant impact on environmental resources, ecological, human and waste generation (soil, water pollution, flora, fauna, health and hazardous waste). In decommissioning phase 2 very low significant impact on environment and

human (waste disposal and 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

Environmental Management Action

The Environmental Management Plan (EMP) formulated with the anticipated impacts, mitigation measures, management and monitoring plans during all phases are implemented. Fineline 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. The project proponent has performed Corporate Social Responsibility (CSR) plan and Emergency Preparedness for the benefits of residents and local community. Fineline Company Limited will contribute 2% of our Net Profit to social welfare activities that will help society and country of Myanmar.

CSR plan of Fineline Company Limited

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

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
2. Noise Management Plan
3. Fire Management Plan
4. Occupational Safety and Health Management Plan
5. Solid Waste Management plan
6. Liquid Waste Management Plan
7. Hazardous Waste Management Plan
8. Energy Management plan
9. Emergency Response and Disaster Management Plan
10. Environmental Monitoring Schedule and Reporting
11. Capacity Building and Training Plan

Public Consulting

Public consultation meeting for Finline Company Limited celebrated on social media. During the preparation of this report, the COVID-19 becomes serious in Yangon. The Ministry of Health and Support declared to avoid gathering more than 5 people by closely contacting and to prevent spreading of disease. Thus, the present condition, the project's environmental condition and the management plans are through the social media of Myanwei Environmental Solution Company Limited Facebook page https://drive.google.com/file/d/17Uc_uSKXtoudMr520GxfScnGR-0NxtEa/view?usp=drivesdk declared on 9th August, 2022. The suggestions, complains and comments from the public, organization and stakeholder are warmly welcome and accept via mailing, comment, telephoning and messengers.

Conclusion and Recommendation

In Conclusion, the environmental management practices, procedures and responsibilities are defined here in to get full compliance with the existing environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar. All the feed backs, desired and needs of local public recorded in public consultation meetings are well addressed and incorporated in formulation of EMP. It has been figured out that, the proposed bags 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 IEE report. Once concerned authorities approve IEE, effective implementation of IEE by the project proponent is essential. The proponent should abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

CHAPTER 1 PROJECT DESCRIPTION

1.1. INTRODUCTION

This report describes the findings of the Initial Environmental Examination (IEE) for the Manufacturing of Various Kinds of Bags by FINELINE COMPANY LIMITED. The main objective of this report is to identify the major environmental impacts due to implementation of the project along with the effective measures to mitigate the potential adverse impacts.

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 Initial Environmental Examination (IEE) to meet the environmental assessment requirements of Notification No. Yaka- 1/3/4 (EIA) (2274/2020) on 10th August 2020. Therefore, FINELINE COMPANY LIMITED commissioned MYANWEI ENVIRONMENTAL SOLUTIONS CO.,LTD. (Myanwei) for IEE report study.

1.2. CONSTRUCTION PHASE

The project identification of construction phase is machinery and equipment installation period. Project proponent was leased the project area from previous owner; this area already constructed the warehouse building.

1.3. OPERATION PHASE

The factory aims to manufacture of bags on CMP basis. The bags manufacturing needs about 982 employees working and most are local people, who manage the company by their dynamic, enthusiastic, experienced, and cooperative skills. The estimated production rate is (17,700,000-19,470,000) pieces during first year to 10 years of production rate. The raw materials were imported from China and then finished good products exported to China and Europe.

1.4. LOCATION OF THE PROJECT SITE

The proposed project is located at between Latitude 16°40'0.27"N Longitude 96°17'28.02"E and Plot No.107, Myay Taing Block No.Thilawa Industrial Zone, Thanlyin-Kyauktan Township, Yangon Region. The location map of the proposed project size is shown in Figure 1-1.

1.4.1. Site Description

The total land area of the proposed project area is 2.388 acres. The term of the land and building Lease Agreement shall be ten (10) years commencing from the date of the agreement between Waung Law Shin @ U Hla Thein, Koe Kyin Hoon @ Daw Khin Khin Yee (Lessors) and FINELINE COMPANY LIMITED (Lessee) by mutual agreement between the Lessor and the Lessee subject to the approval of the Yangon Region Investment Committee. Its land area include security gate, dormitory, garbage storage room, transformer, generator room, underground water tank and fire safety pump, assembling, cutting section, painting, sewing & packing section and warehouse. Factory aerial photo and factory layout drawing are able to seen in Figure 1-2 and Figure 1-4.

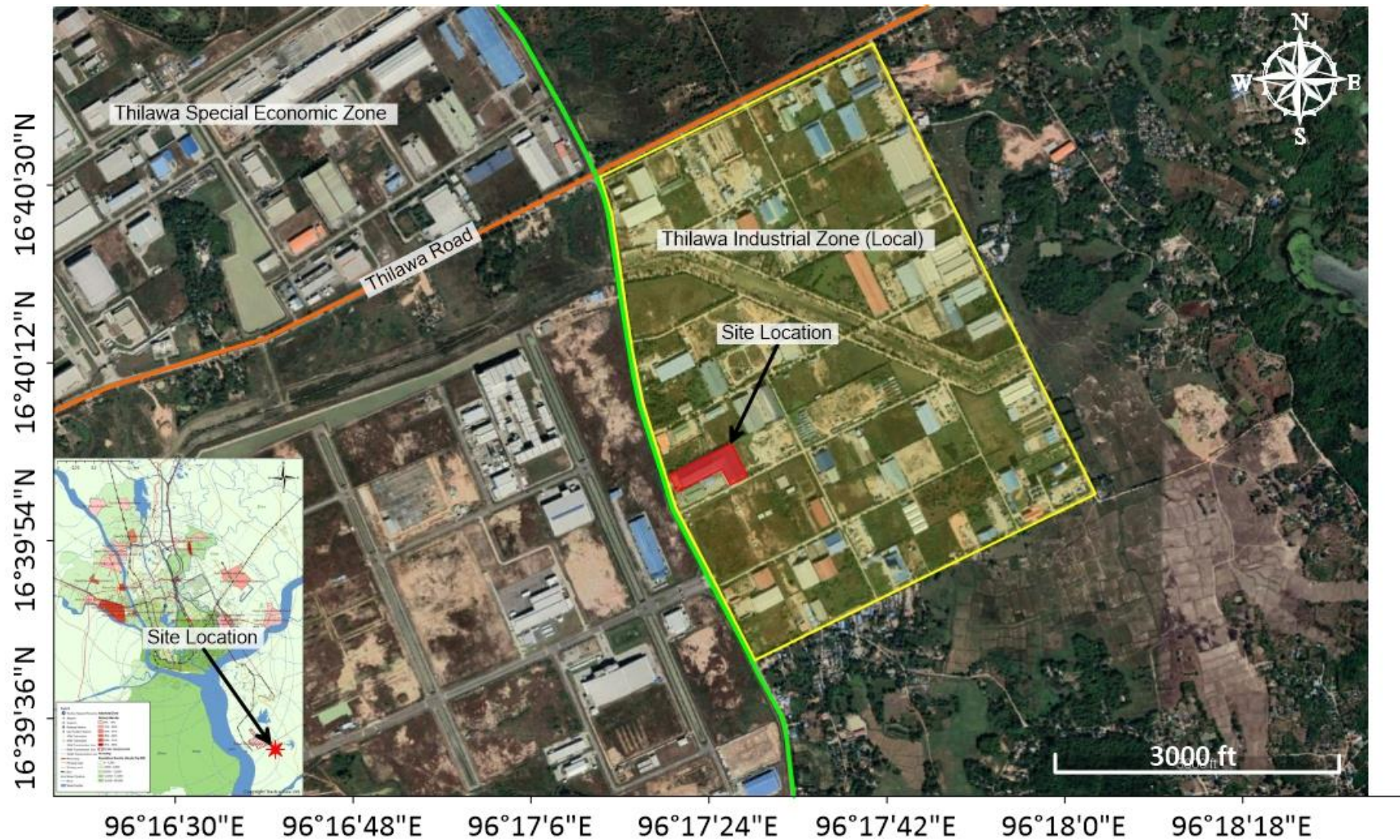


Figure 1-1 Location Map

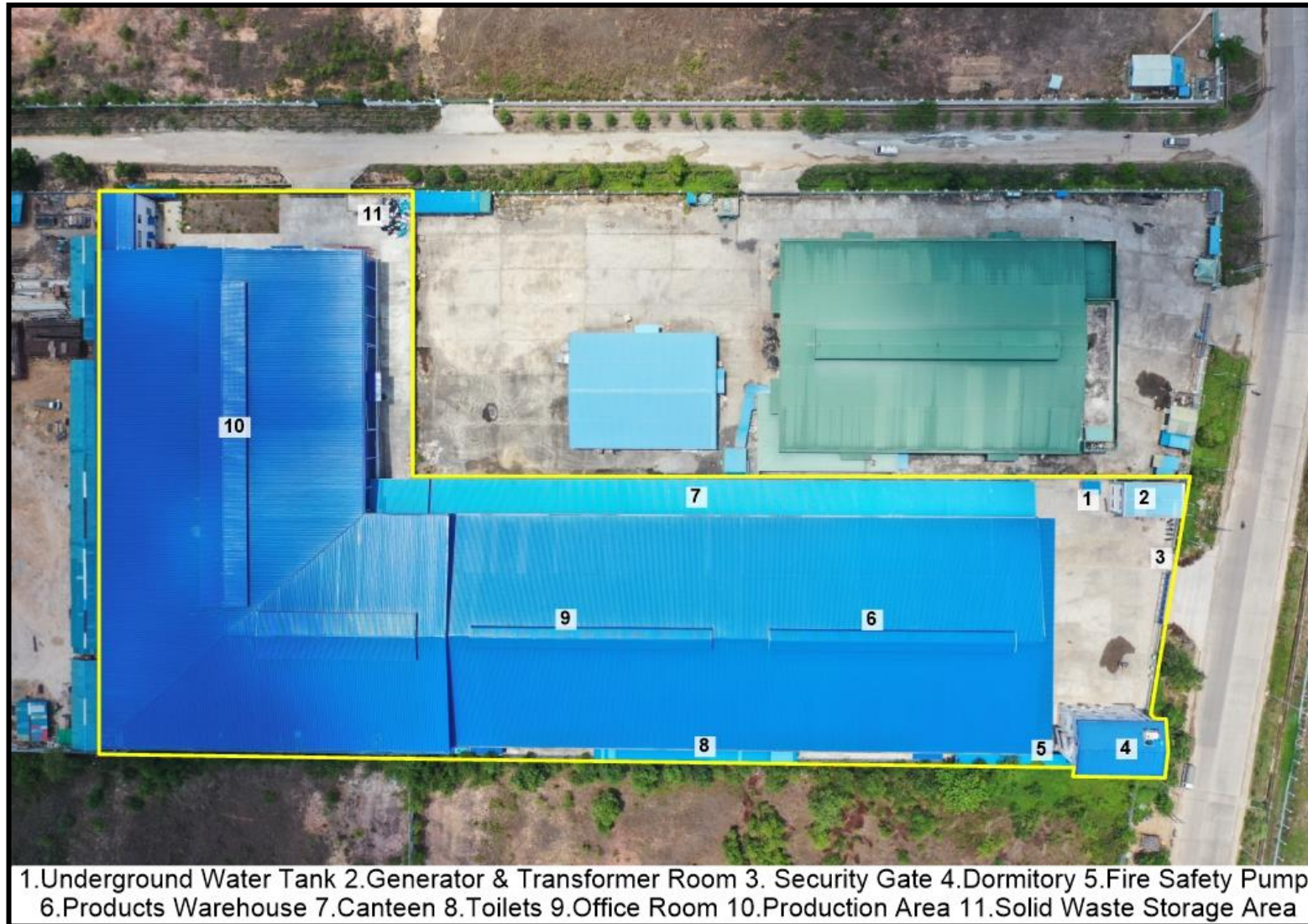


Figure 1-2 Factory Aerial Photo



Figure 1-3 Adjacent Location Map

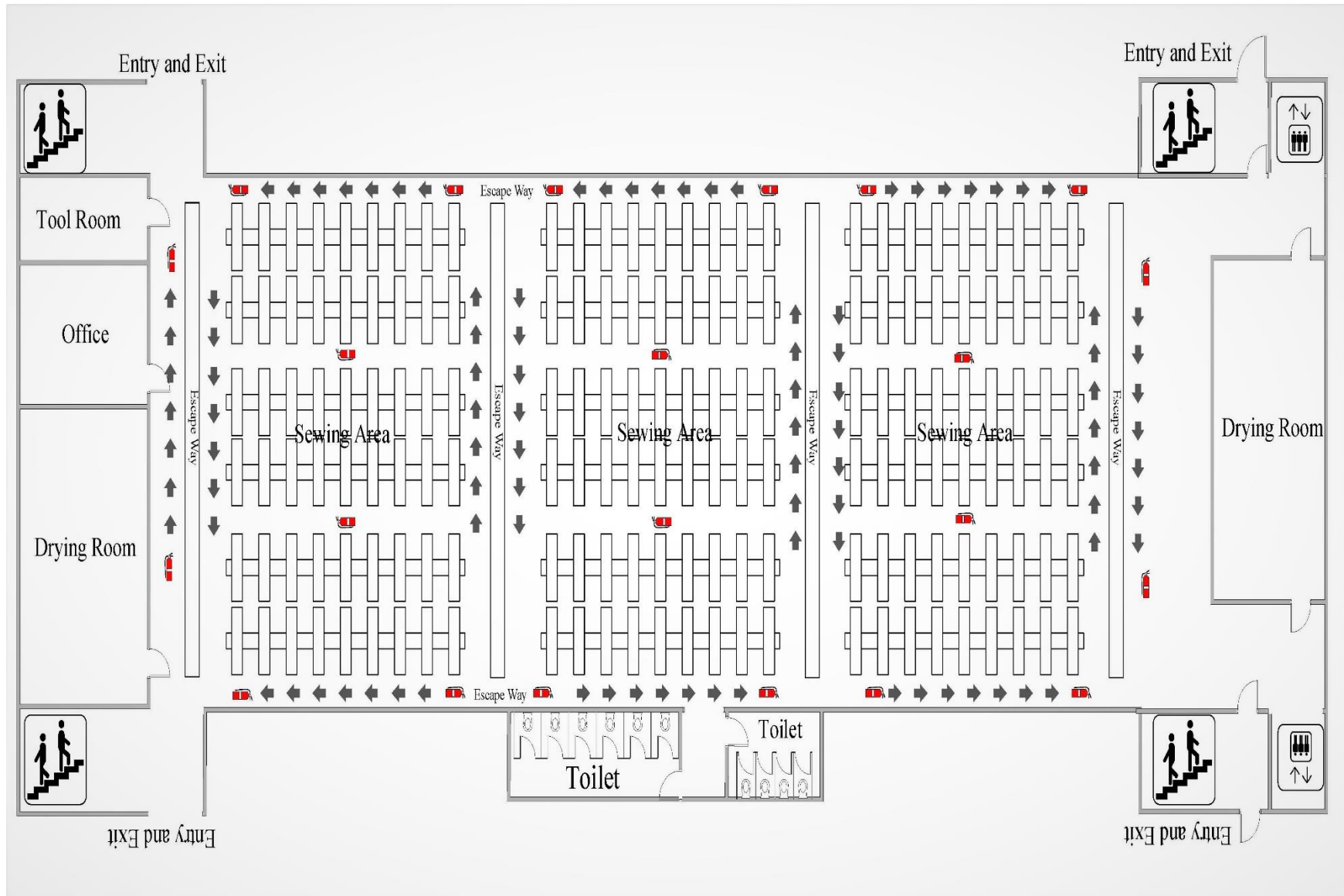


Figure 1-4 Factory Layout Drawing

1.5. PRODUCTION PROCESS

The production process is based on CMP system in which the production on consignment in which the main raw materials (Pu materials, Pvc materials, leather, canvas, nylon etc.) are provided by overseas buyers and imported free of charge, then cut, glue, sewn and packed in the domestic factories, after which all of the finished products are exported. The main operation of the proposed factory is sewing. The sewing was operated one and two needle sewing machine and checked by quality control supervisor on each sewing line. Before sewing, some pieces of the bags were cemented. After QC process, bag packing is completed and prior to shipping to destinations. The process flow diagram for bags manufacturing is illustrated in Figure 1-5. During operation, the proposed factory is expected to produce bag products as per Table 1-1.

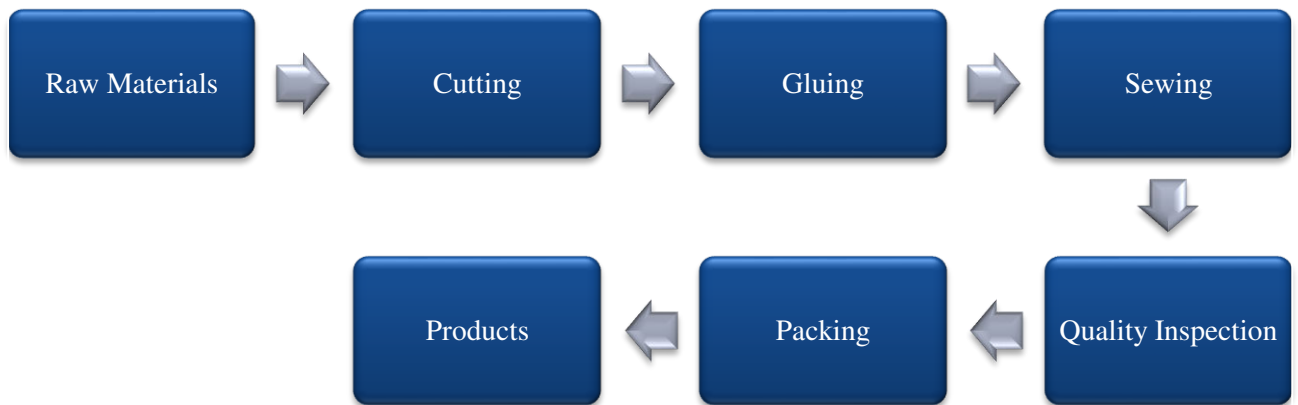


Figure 1-5 Production Flow Diagram



Raw Materials



Cutting



Gluing



Sewing



Inspection Area



Packaging

Figure 1-6 Production Photos of FINELINE COMPANY LIMITED

Table 1-1 Annual Production Rate

No.	Particular	Unit	Year 1 to 3	Year 4 to 10
1	Tote Bag	Pcs	1,000,000	1,100,000
2	Hobo Bag	Pcs	1,000,000	1,100,000
3	Satchel	Pcs	1,000,000	1,100,000
4	Crossbody	Pcs	1,200,000	1,320,000
5	Backpack	Pcs	800,000	880,000
6	Backpack	Pcs	800,000	880,000
7	Shopping Bag	Pcs	1,000,000	1,100,000
8	Cosmetic Bag	Pcs	1,500,000	1,650,000
9	Crossbody	Pcs	1,500,000	1,650,000
10	Clutch	Pcs	1,200,000	1,320,000
11	Briefcase	Pcs	700,000	770,000
12	Card Case	Pcs	2,000,000	2,200,000

No.	Particular	Unit	Year 1 to 3	Year 4 to 10
13	Wallet	Pcs	1,500,000	1,650,000
14	Belt Bag	Pcs	1,500,000	1,650,000
15	Travel Kit	Pcs	1,000,000	1,100,000



Figure 1-7 Products Photo

1.6. UTILITIES

1.6.1. Raw Material

The main Raw Materials are Pu Material, Pvc Material, Leather, Canvas, Nylon and etc. which imported from China. List of Raw materials are described in Table 1-2.

Table 1-2 List of Raw Materials Requirement

No.	Particular	Unit	Year -1 to 3	Year- 4 to 10
1	Pu Material	Yards	10,635,000	11,698,500
2	Pvc Material	Yards	10,635,000	11,698,500
3	Leather	SQFT	126,100,000	138,710,000
4	Canvas	Yards	10,635,000	11,698,500
5	Nylon	Yards	10,635,000	11,698,500
6	Denim	Yards	10,635,000	11,698,500
7	Water Pu	Yards	10,635,000	11,698,500
8	Weave	Yards	10,635,000	11,698,500
9	Tpu	Yards	10,635,000	11,698,500
10	Velvet	Yards	10,635,000	11,698,500
11	Braid Material	Yards	10,635,000	11,698,500
12	Fabric	Yards	10,635,000	11,698,500
13	Fur	SQFT	34,020,000	37,422,000
14	Faux Fur	Yards	5,169,000	5,685,000
15	Micro Fiber	Yards	7,990,000	8,789,000

No.	Particular	Unit	Year -1 to 3	Year- 4 to 10
16	Twill Lining	Yards	9,570,000	10,527,000
17	TC Lining	Yards	9,570,000	10,527,000
18	Linen	Yards	9,570,000	10,527,000
19	Eva	Yards	8,709,000	9,579,900
20	Salpa	Yards	8,709,000	9,579,900
21	Pvc	Yards	8,709,000	9,579,900
22	Non-Woven Fabric	Yards	8,709,000	9,579,900
23	Transparent Tape	Yards	8,526,000	9,378,600
24	Elastic Rubber	Yards	8,526,000	9,378,600
25	Mesh	Yards	8,526,000	9,378,600
26	Pep Foam	Yards	8,156,000	8,971,600
27	Pu Foam	Yards	8,156,000	8,971,600
28	Towels	Yards	13,065,000	14,371,500
29	Velcro	Yards	11,810,000	12,991,000
30	Metal Zipper	Yards	23,550,000	25,905,000
31	Nylon Zipper	Yards	23,550,000	25,905,000
32	Plastic Zipper	Yards	23,550,000	25,905,000
33	Zipper	Yards	23,550,000	25,905,000
34	Zip Head	Pcs	88,500,000	97,350,000
35	Zip Puller	Pcs	88,500,000	97,350,000
36	Lock	Sets	31,900,000	35,090,000
37	D Ring	Pcs	63,800,000	70,180,000
38	O Ring	Pcs	92,200,000	101,420,000
39	Metal Hook	Pcs	35,400,000	38,940,000
40	Square Ring	Pcs	63,800,000	70,180,000
41	Buckle	Pcs	63,800,000	70,180,000
42	Magnetic Button	Sets	31,900,000	35,090,000
43	Magnetic Snap	Sets	31,900,000	35,090,000
44	Snap Button	Sets	35,400,000	38,940,000
45	Rivets	Sets	145,200,000	159,720,000
46	Slider Buckle	Pcs	35,400,000	38,940,000
47	Spring Buckle	Pcs	35,400,000	38,940,000
48	Button	Pcs	35,400,000	38,940,000
49	Studs	Sets	142,200,000	156,420,000
50	Handle	Pcs	26,700,000	29,370,000
51	Decoration	Pcs	62,400,000	68,640,000
52	Ring	Pcs	63,800,000	70,180,000
53	Mold	Pcs	63,800,000	70,180,000

No.	Particular	Unit	Year -1 to 3	Year- 4 to 10
54	Diamond/Crystal Stud	Pcs	159,500,000	175,450,000
55	Pearl	Pcs	159,500,000	175,450,000
56	Mobile Phone Shell	Pcs	17,700,000	19,470,000
57	Eyelet	Sets	142,200,000	156,420,000
58	Cotton Webbing	Yards	40,250,000	44,275,000
59	Nylon Webbing	Yards	40,250,000	44,275,000
60	Rubber Gasket	Pcs	166,000,000	182,600,000
61	Metal Logo	Pcs	35,400,000	38,940,000
62	Metal Clip	Pcs	35,400,000	38,940,000
63	Rubber Logo	Pcs	35,400,000	38,940,000
64	Thread	Roll	3,780,000	4,158,000
65	Elastic Strap	Yards	13,620,000	14,982,000
66	Wheel	Pcs	35,400,000	38,940,000
67	Webbing Binding	Yards	43,820,000	48,202,000
68	Lateral Stud	Pcs	35,400,000	38,940,000
69	Screw	Pcs	145,200,000	159,720,000
70	Inviolable Tie	Pcs	35,400,000	38,940,000
71	Fabric Labels	Pcs	35,400,000	38,940,000
72	Hangtag	Pcs	35,400,000	38,940,000
73	Sealing Tape	Roll	1,462,000	1,608,200
74	Silica Gel	Pcs	35,400,000	38,940,000
75	Sticker	Pcs	35,400,000	38,940,000
76	Pe Bag	Pcs	17,700,000	19,470,000
77	Carton	Pcs	12,380,000	13,618,000
78	Cardboard	Pcs	123,900,000	136,290,000
79	Stuffing Paper	Kgs	26,930,000	29,623,000
80	Pvc Piping	Yards	13,520,000	14,872,000
81	Pe Board	Yards	6,190,000	6,809,000
82	Card Board	Pcs	31,900,000	35,090,000
83	Needle	Pcs	17,700,000	19,470,000
84	Chain	M	25,700,000	28,270,000
85	Alarm	Pcs	35,400,000	38,940,000
86	Dust Bag	Pcs	17,700,000	19,470,000
87	Wax Cord	Yards	26,650,000	29,315,000
88	Cotton Rope	Yards	26,650,000	29,315,000
89	Copying Tissue	Kgs	1,676,000	1,843,600
90	Arojel	Kgs	1,377,000	1,514,700

No.	Particular	Unit	Year -1 to 3	Year- 4 to 10
91	Yellow Glue	Kgs	1,377,000	1,514,700
92	Universal Glue	Kgs	1,377,000	1,514,700
93	Edge Oil	Kgs	4,495,000	4,944,500
94	Webbing	Yads	43,080,000	47,388,000
95	Woven Label	Pcs	35,400,000	38,940,000
96	Label	Pcs	35,400,000	38,940,000
97	Air Bag	Pcs	17,700,000	19,470,000
98	Glue	Kgs	1,392,000	1,531,200
99	Plastic Bag	Pcs	17,700,000	19,470,000
100	Foam	Yards	8,300,000	9,130,000
101	Cord	Pcs	35,400,000	38,940,000
102	Micro Pack	Pcs	35,400,000	38,940,000
103	Antimock Sticker	Pcs	35,400,000	38,940,000
104	Paper	Kgs	11,070,000	12,177,000
105	Paper Pattern	Pcs	17,700,000	19,470,000
106	Reinforcement	Yards	12,450,000	13,695,000
107	PP Board	Yards	9,070,000	9,977,000
108	Japan Paper	Kgs	12,160,000	13,376,000
109	Packing Box	Pcs	17,700,000	19,470,000
110	Reinforcing Band	Yards	13,130,000	14,443,000
111	420 D	Yards	10,230,000	11,253,000
112	The Oil of Machine	Kgs	6,810,000	7,491,000
113	Thread Oil	Kgs	6,810,000	7,491,000
114	Chip Board Paper	Kgs	2,045,000	2,249,500
115	Paper Pipe	Kgs	1,770,000	1,947,000
116	Masking Tape	Pcs	17,700,000	19,470,000
117	Self Adhesive Paper	Pcs	17,700,000	19,470,000
118	Materials of Edge Painting	Kgs	6,985,000	7,683,500
119	Cleaning Agent	Kgs	6,985,000	7,683,500
120	Polyester Fabric	Kgs	6,985,000	7,683,500
121	Plastic Oilcan	Pcs	17,700,000	19,470,000
122	Edge Painting Box	Pcs	17,700,000	19,470,000
123	Glue Gun	Pcs	17,700,000	19,470,000
124	Hot Melt Glue	Pcs	17,700,000	19,470,000
125	Electric Iron	Pcs	17,700,000	19,470,000
126	Scissors	Pcs	17,700,000	19,470,000
127	Drying Agent	Pcs	35,400,000	38,940,000

No.	Particular	Unit	Year -1 to 3	Year- 4 to 10
128	Poly Tube	Kgs	7,060,000	7,766,000

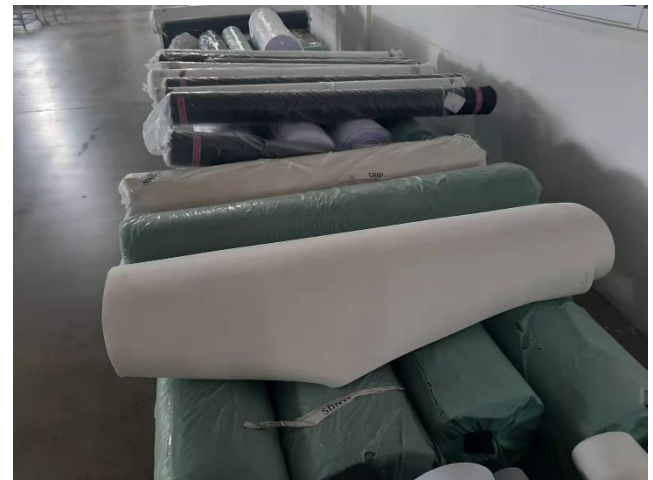


Figure 1-8 Raw Materials Storage Photo



Figure 1-9 Chemical Storage Photo

1.6.2. Machinery and Equipment

List of machinery and equipment required for FINELINE COMPANY LIMITED is following in Table 1-3. The machinery running day is 262 days in a year.

Table 1-3 List of Machinery

No.	Particular	Unit	Quantity
1	DY Machine	Set	200
2	Sewing Machine	Set	20
3	Cutting Machine	Set	30
4	Staking Machine	Set	20
5	Gluding Machine	Set	20
6	Cutting Ribbing Machine	Set	6
7	Bartack Machine	Set	6

No.	Particular	Unit	Quantity
8	Nailing Machine	Set	30
9	Coding Machine	Set	2
10	Prober Machine	Set	2
11	Prober By Hand	Set	12
12	Floder Material Machine	Set	50
13	Strip Cutting Machine	Set	4
14	Embossed Machine	Set	4
15	Pressure Line Machine	Set	10
16	Paper Pattern Machine	Set	2
17	Column Sewing Machine	Set	25
18	High Chariot Sewing Machine	Set	120
19	Comuputer Sewing Machine	Set	100
20	Edge Painting Machine	Set	20
21	Vacuum Cleaner Of Staking Machine	Set	20
22	Dehumidifier	Set	20
23	Twin Needle Machine	Set	8
24	Thread Cutting Machine	Set	30
25	Bagger Machine	Set	6
26	Air Compressor	Set	2
27	Punch Machine	Set	4
28	Hammer Machine	Set	20
29	High Frequency Machine	Set	3
30	Packing Machine	Set	2
31	Plodder	Set	4
32	Locking Machine	Set	3
33	Flip Strap Machine	Set	2
34	Punch Machine	Set	8
35	Paper Machine	Set	2
36	Computer Straight Folding Machine	Set	6
37	Sanding Machine	Set	15
38	8m Rotary multi-purpose oven	Set	6
39	Laser Cutting Machine	Set	1

1.6.3. Human Resource

Human resource required by foreign experts/technicians and local persons for administrative and production process are about 981 persons which are also described in Table 1-4.

Table 1-4 Employment Schedule of FINELINE COMPANY LIMITED

No	Position	Local Person	Foreign Technicians
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No	Position	Local Person	Foreign Technicians
1	Human Resource Manager	1	
2	Financial Manager	1	
3	Shipping Manager	1	
4	Personnel Manager	1	
5	Quality Inspection Manager	1	
6	Warehouse In And Out Of The Clerk	1	
7	Driver	2	
8	Security	4	
9	Cleaner	2	
10	Skilled Worker	699	
11	Unskilled Worker	250	
12	Translator	2	
13	Machine Repair	1	
14	Office Clerk	4	
15	Fire Safety Officer	1	
16	Production Manager		2
17	Financial Manager		1
18	Quality Inspection Manager		1
19	Warehouse Supervisor		1
20	Technician		3
21	Machine Repair		1
22	Office Clerk		1
	Total	971	10

1.6.4. Water Requirement

Thilawa industrial zone has no centralized water supply system and the factory gets water from the tube wells installed inside the factory compound. The main water use in the proposed project is for domestic usage such as for personal washing, food preparation, and washing of utensils. Drinking water provides by outsource of drinking water suppliers. Water storage tank and drinking water supply for FINELINE COMPANY LIMITED factory are described in Figure 1-10. Main source of water supply will be provided by tube well water (ground water 50ft deep) in which ground water is pumped by 4 inches PVC pipe and treated by oxidation tower, chlorine dosing system, de-iron filter (FRP), carn filter, and cartridge filter (see in photo). The tube well and filtration tower are located at between the office building and operation factory building. There are 2 water tanks raw water tank and treated water tank. The factory uses water about 393,967 gallons annually.



Figure 1-10 Underground water storage tank and drinking water supply

1.6.5. Electricity and Fuel Requirement

The proposed project intended to get required electricity supply form sources of energy 1000 kVA transformer and 500 kVA generators which also be kept as the emergency generator if normal electricity supply could not provide for the proposed project. The proposed project of electricity usage is 26,500 units in a month and diesel usage is 750 gallons per month.



Figure 1-11 Electricity Facilities at FINELINE Factory

1.7. FACILITIES

1.7.1. Fire hazards protect facility

Fire extinguishers, fire hose reels and fire hydrants are installed in the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening is also constructed with the capacity of 85,896 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 1-12.



Figure 1-12 Firefighting system

1.7.2. 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 1-13. 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.



Figure 1-13 Drainage and Toilet facility

1.7.3. 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.



Figure 1-14 Waste storage photo

1.7.4. Medical and Health facility for employments

The factory has a clinic and full-time nurse-aid has been employed to treat employees for minor injuries, sickness and emergency medical care. Medicines and first aid kits are provided in this clinic. Moreover, these medicines and first aid kits are provided for emergency cases of workers. First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for 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 relevant department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.



Figure 1-15 First Aids and Medical room Photo

1.7.5. 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, toilet, kitchen and dormitory.

1.7.6. Dormitory facility

Housing/accommodation is providing for the foreign technicians in the factory compound that lives in the 10 persons.



Figure 1-16 Dormitory

1.8. GENERATION OF WASTE, EMISSION AND DISTURBANCES

1.8.1. Industrial Wastes

Wastes generated from the bags manufacturing factory are cloth scraps of 50% from cutting section, 35% from sewing section and 15% from packing section. In addition, packing waste of plastic sheet, carton box and fabric paper tube are generated from cutting line and packing section. Total amount of waste about maximum 3628 kg per day are generated from operation process.

1.8.2. Human wastes

The number of staff and workers required in the day shift for the factory is maximum 2550 persons during operation. Solid waste generated from maximum amount of operators and office staffs with assumption of waste generation rate at 7,800 kg/day was calculated based on solid waste generation rate of 3.06 kg/person/day¹.

Domestic wastewater generated by maximum amount of 1000 persons with assumption rate 228 m³/day was calculated based on domestic wastewater generated rate of 0.1 m³/person/day². This water will be released in operation hour discharge to septic tank or factory drainage.

¹ The Yangon City solid waste generation rate as of 2012 is 0.39 kg per person per day (Pollution Control and Cleansing Department, Yangon City Development Committee, 2014).

² The domestic wastewater generation was based on typical wastewater generation rate of 0.1 m³ per person per day (Metcalf & Eddy, 2004)

The project will be generated solid waste, liquid waste and hazardous waste from the operation of the Finline factory. Detail description of waste generation and waste amount are shown in Table 1-5.

Table 1-5 Waste generation and waste amount

Waste		Type of wastes	Estimated waste amount	Source of generation
Solid waste	Re-usable	Residual pieces of fabric scraps	12% a roll of fabric (kg)	Production line and cutting line
		Raw material cutting wastes	1500 kg / month	
		Disposed packaging materials, paper or plastic wrapping	100 kg / month	Materials store and supply packaging
	Non re-usable	Food residues, domestic waste	92 kg / day*	Canteen, Kitchens, dormitory
Liquid waste		Sanitary discharge water	228 m ³ /day*	Toilet facility, kitchen and canteen
Hazardous waste		Residual chemicals, use chemical container		Chemical usage and store area
		Oil leakage and spills	-	Operation of generator and movements of vehicles

1.9. ALTERNATIVE PROJECT SITE

No alternative site has been proposed aside from this area since the proposed project area is situated within Thilawa Industrial Zone, Thanlyin-Kyauktan Township, Yangon Region, which has been designated and already finished the construction phase during IEE study. The factory already has endorsement from Myanmar Investment Commission.

1.10. DECOMMISSIONING PHASE

The proposed project investment duration is 30 years and they will close out the project according to their YRIC proposal.

CHAPTER 2 PROJECT PROPONENT PROFILE

2.1. PROJECT INFORMATION

The proposed factory is the wholly foreign owned by FINELINE COMPANY LIMITED with an estimated authorized capital of USD (2.087) millions. The project is new investment for manufacturing of Various Kinds of Bags on Contract Manufacturing Process (CMP) basic company from China. The Yangon Region Investment Committee (YRIC) issues the project on 21st February 2020 with the Endorsement No. (YGN- 364/2020). 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 on Cutting, Making and Packaging (CMP) basis under the name of FINELINE COMPANY LIMITED. This is the information of project proponent from the YRIC's endorsement that is describing in below Table 2-1 and summary of project information is presented in Table 2-1.

Table 2-1 Information of Investor

Name of Shareholder	Citizenship	Designation
NAN XIANG ENTERPRISES LIMITED Representative By;	Hong Kong	100%
Mr. Yang Xu	Chinese	

Table 2-2 Salient features of the project

Type of Proposed Business	Manufacturing of Various Kinds of Bags on CMP Basis
Type of investment	Wholly Foreign Owned
Type of Share	Ordinary Share
Type of land	Industrial Land
Total land area	2.388 acres
Total building area	One Storey Factory Buildings (9663.89 Sqm)
Land lease year	30 years
Construction period	1 year
Operation starting date	After Preparatory period (1) Year
Address	Plot No. 107, Myay Taing Block No.Thilawa Industrial Zone, Thanlyin-Kyauktan Towhship, Yangon Region.
Contact person	Ma Lin (HR Manager) 09-404246963

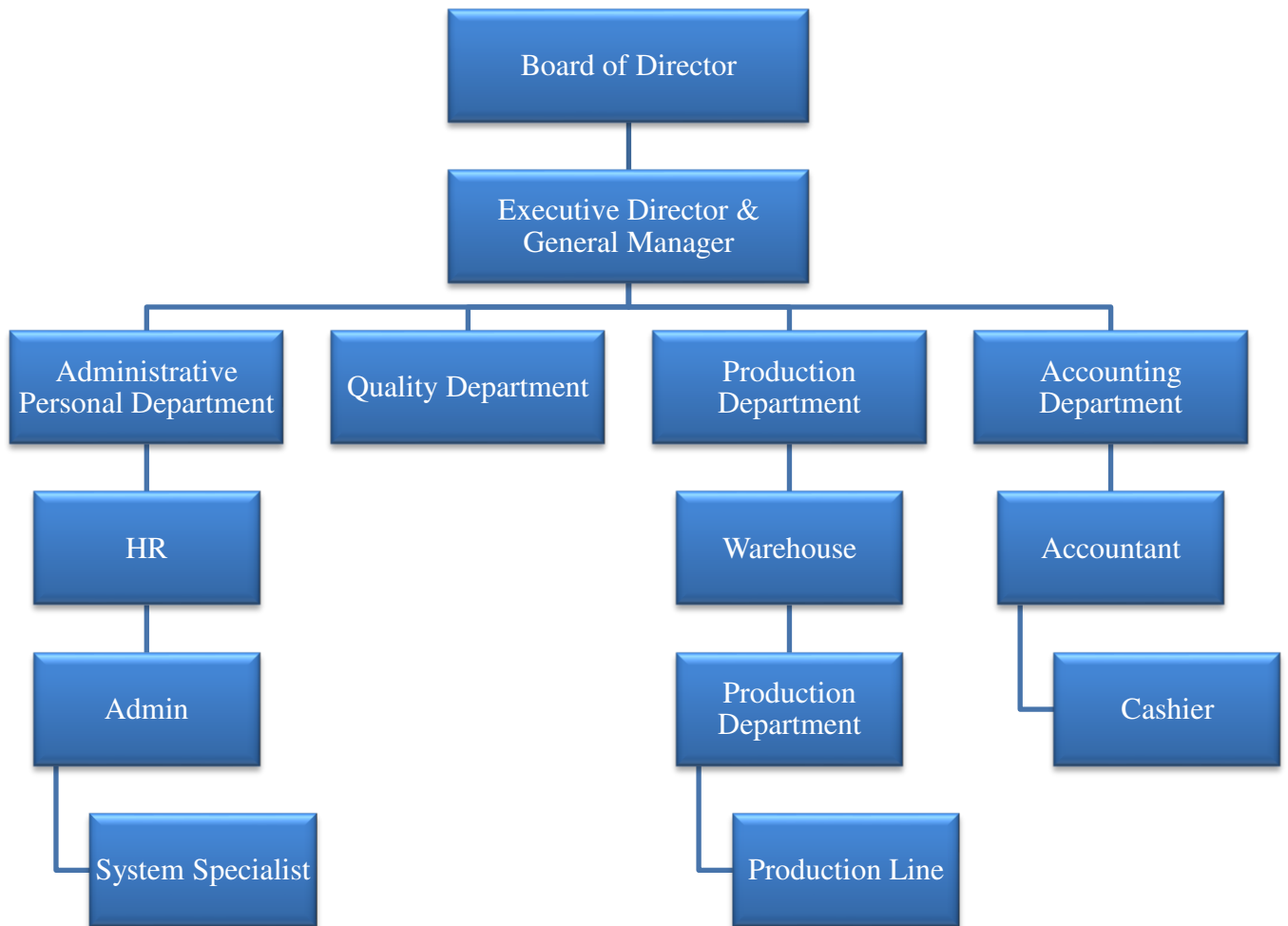


Figure 2-1 Organization Chart of FINELINE COMPANY LIMITED

CHAPTER 3 ENVIRONMENTAL CONSULTANT PROFILE

3.1. SCOPE OF IEE STUDY

The IEE study firstly established baseline environmental setting within 100 meters of the project area, including existing conditions of air quality, water quality, noise, weather and local climate, waste, landscape and social assessment. The field studies were carried out by Myanwei Consulting firm 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.

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

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

3.2. IDENTIFICATION OF IEE STUDY TEAM

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

Table 3-1 Member of IEE study team

Name	Qualification	Responsibility
Myanwei Environmental Solutions Co., Ltd.	Transition Consultant Registration Certificate No. 0069	EIA Organization No. 36-38, 9th floor (A), Grand Myay Nu Condo, Myay Nu Street, Sanchaung Township, Yangon, Myanmar. Website: www.myanwweiconsulting.com Ph: 01-501221
Mr. Lin Htet Sein	MSc (Regional Geology) BSc (Hons) Geology Dip in Environmental Science Certificate in Environmental & Social Assessment Certificate in Environmental Stainability TCR No. 0048	Project Director, Environmental Consultant, Project Management

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

CHAPTER 4 POLICY, LEGAL AND INSTITUTIONAL FRAME WORK

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.

4.1. 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 are the Environmental Conservation Department (ECD) of the MONREC that was reorganized Ministry of Environmental Conservation and Forestry (MOECAF) in April 2016.

4.1.1. Laws and Regulations Related to Environmental and Social Considerations

Requirements related to environmental (and social) impact management for development projects are described in Table 4-1.

Table 4-1 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

Law and Regulation	Description
	degenerate and disappear; (e) to enable to manage and implement for decrease and loss of natural resources and for enabling the sustainable use beneficially;
Chapter IV Provisions of Duties and Powers relating to the Environmental Conservation of the Ministry: Section 7	(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; (b) To prescribe categories of hazardous substances that may affect significantly at present or in the long run on the environment; (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; (d) prescribing environmental quality standards including standards on emissions, effluents, solid wastes, production procedures, processes and products for conservation and enhancement of environmental quality; (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; (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; (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.
Chapter VI Environmental Quality Standards: Section10	The Ministry may, with the approval of the Union Government and the Committee, stipulate the following environmental quality standards: (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; (b) water quality standards for coastal and estuarine areas; (c) underground water quality standards; (d) atmospheric quality standards; (e) noise and vibration standards; (f) emissions standards; (g) effluent standards; (h) solid wastes standards; (i) other environmental quality standards stipulated by the Union Government.
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	A person or organization operating business in the industrial estate or business in the SEZ or category of business stipulated by the Ministry:

Law and Regulation	Description
	(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; (b) shall contribute the stipulated users' charges or management fees for the environmental conservation according to the relevant industrial estate, SEZ and business organization; (c) shall comply with the directives issued for environmental conservation according to the relevant industrial estate, SEZ or business.
Chapter X Prior Permission Section 24	The Ministry may, in issuing the prior permission, stipulate terms and conditions relating to environmental conservation. It may conduct inspection whether or not it is performed in conformity with such terms and conditions or inform the relevant Government departments, Government organizations to carry out inspections.
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.
Chapter XIII Offences and Penalties Section 32	Whoever violates any prohibition contained in the rules, notifications, orders, directives and procedures issued under this Law shall, on conviction, be punished with imprisonment for a term not exceeding one year, or with fine, or with both.
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 of 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.
Chapter XIII Prohibitions Section 69	(a) Any person shall not emit, cause to emit, dispose, cause to dispose, pile and cause to pile, by any means, the pollutants to environment and the hazardous waste or hazardous material stipulated by notification under the Law and any of these rules at any place which may affect the public directly or indirectly. (b) Any person shall not carry out the actions which can be damaged to natural environment which is changing due to ecosystem and such system, except the permission of the relevant Ministry in order to the interest of the public.
Environmental Impact Assessment Procedure, December 2015	
Objectives	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.

Law and Regulation	Description
	<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 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</p>

Law and Regulation	Description
	<p>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 ii) An IEE Type Project, or iii) A Non IEE or EIA Type, and therefore not required to</p>
<p>CHAPTER VIII. Monitoring Section 102</p>	<p>The monitoring reports shall include:</p> <p>a) documentation of compliance with all Conditions; b) progress made to date on implementation of the EMP against the submitted implementation schedule; c) difficulties encountered in implementing the EMP and recommendations for remedying those difficulties and steps proposed to prevent or avoid similar future difficulties; d) number and type of non-compliance with the EMP and proposed remedial measures and timelines for completion of remediation; e) accidents or incidents relating to the occupational and community health and safety, and the environment; and f) monitoring data of environmental parameters and conditions as committed in the EMP or otherwise required</p>
<p>Section 103</p>	<p>Within ten (10) days of completing a monitoring report as contemplated in Article 97 and Article 98 in accordance with the EMP schedule, the Project Proponent shall make such report (except as may relate to National Security concerns) publicly available on</p> <p>the Project's website, at public meeting places (e.g. libraries, community halls) and at the Project offices. Any organization or person may request a digital copy of a monitoring report and the Project shall, within ten (10) days of receiving such request, submit a digital copy via email or as may otherwise be agreed upon with the requestor</p>
<p>Section 104</p>	<p>The Ministry has the right, using its own officers at national, regional, state, Nay Pyi Taw Union Territory and/or local offices, the services of any consultant, or both, to conduct monitoring and inspections of a Project and activities related thereto in order to control and determine compliance by the Project with all applicable environmental and socio-economical requirements and, where possible, to prevent violations of the Project's obligations. The Ministry may also, for the implementation of monitoring and inspections, enlist the assistance of other relevant government departments and organizations.</p>
<p>Section 105</p>	<p>If, upon inspection, the Ministry identifies any non-compliance with the EMP or Conditions in the ECC, the Ministry may require the Project Proponent to undertake remedial measures and/or may impose penalties as provided for in this Procedure</p>
<p>Section 106</p>	<p>For purposes of monitoring and inspection, the Project Proponent shall grant to the Ministry and/or its representatives, at any time during normal working hours and from time to time as and when the Ministry may reasonably require, access to the Project's offices and to the Project site and any other location at which the Project activities or activities related to the Project are performed.</p>
<p>Section 107</p>	<p>In carrying out any inspection, the Ministry may take photographs and make other audio and video recordings of any type, take soil, sediment, water, and air samples, and examine computers, copy documents including digital files, interview persons, and carry out any other investigation which the Ministry believes to be necessary or appropriate.</p>

Law and Regulation	Description
	The Ministry, as it deems necessary, may carry out such inspection in coordination with any other ministries.
Section 108	In the event of an emergency, or where, in the opinion of the Ministry, there is or may exist a violation or risk of violation of the compliance by the Project with all applicable environmental and social requirements, the Project shall grant full and immediate access to the Ministry at any time as may be required by the Ministry, including outside normal working hours.
Section 109	The Ministry's inspections may include without limitation sites, facilities, vehicles, computers, archives, documents and all other forms and types of media and information storage, and persons.
Section 110	The Project Proponent shall further ensure that the Ministry's rights of access hereunder shall extend to access by the Ministry to the Project's contractors and subcontractors
Section 113	The Ministry shall indicate the manner in which environmental obligations are not being complied with by the Project Proponent, and shall give the Project a specified time period (determined by the Ministry to be reasonable under the circumstances) within which to bring the Project into compliance.
Section 115	All costs of the Ministry to conduct inspection and monitoring of the Project shall be borne by the Project Proponent. Such costs shall not exceed that which is necessary to ensure the Project's compliance with the Project commitments as set out in the EMP and in the ECC.
Section 117	The Ministry may require that Projects and other economic activities that derive from such policy, strategy, development plan, framework or program and which have been required to undertake a study to identify and assess the potential environmental and social impacts (as stipulated above) shall be developed and implemented (sited, designed, constructed and operated) in accordance with the environmental and social management and monitoring framework of such policy, strategy, development plan, framework or program.
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><u>Vision</u> A clean environment, with healthy and functioning ecosystem, that ensures includes development and wellbeing for all people in Myanmar.</p> <p><u>Mission</u> To establish national environmental policy principle for guiding environmental protection and sustainable development and for mainstreaming environmental consideration into all polices, 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>

Law and Regulation	Description
Section 17	(a) To abide by the existing laws of the Republic of the Union of Myanmar. (b) To carry out the business by forming a company under the existing laws of Myanmar by the investor. (h) To carry out not to cause environmental pollution or damage in accord with existing laws in respect of investment business. (k) To carry out the systematic transfer of high technology relating to the business which are carried out by the investor to the relevant enterprises, departments or organizations in accord with the contract.
Foreign Investment Rule, 2013	
Rule 54	The promoter or investor shall: (a) comply with Environmental Protection Law in dealing with environmental protection matters related to the business; (b) shall carry out socially responsible investment in the interest of the Union and its people; (c) shall co-operate with authorities for occasional or mandatory inspection; (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; (e) shall enforce Safety and Health
Myanmar Investment Law, 2016	
Chapter II Objective Section 3	The objectives of this Law are as follows: (a) to develop responsible investment businesses which do not cause harm to the natural environment and the social environment for the interest of the Union and its citizens; (b) to protect the investors and their investment businesses in accordance with the law; (c) to create job opportunities for the people; (d) to develop human resources; (e) to develop high functioning production, service, and trading sectors. (f) to develop technology, agriculture, livestock and industrial sectors; (g) to develop various professional fields including infrastructure around the Union; (h) to enable the citizens to be able to work alongside with the international community; (i) to develop businesses and investment businesses that meet international standards.
Chapter XIII Employment of Staff and Workers Section 51	The investor: (a) may appoint of any citizen who is a qualified person as senior manager, technical and operational expert, and advisor in his investment within the Union in accordance with the Laws; (b) shall appoint them to replace, after providing for capacity building programs in order to be able to appoint citizens to different level positions of management, technical and operational experts, and advisors; (c) shall appoint only citizens for works which does not require skill; (d) shall appoint skilled citizen and foreign workers, technicians, and staff by signing an employment contract between employer and employee in

Law and Regulation	Description
	accordance with the labor laws and rules; (e) shall ensure to obtain the entitlements and rights in the labor laws and rules, including minimum wages and salary, leave, holiday, overtime fee, damages, compensation of the workman, social welfare, and other insurance relating to workers in stipulating the rights and duties of employers and employees and occupational terms and conditions in the employment contract; (f) shall settle disputes arising among employers, among workers, between employers and workers, and technicians or staff in the investment in accordance with the applicable laws.
Chapter XVI Responsibilities of Investors Section 65	The Investor: (f) shall not make any significant alteration of topography or elevation of the land on which he is entitled to lease or to use, without the approval of the Commission; (g) shall abide by applicable laws, rules, procedures and best standards practiced internationally for this investment so as not to cause damage, pollution, and loss to the natural and social environment and not to cause damage to cultural heritage; (i) shall close and discontinue the investment only after payment of compensation to employees in accordance with applicable laws for any breach of employment contracts, closure of investment, sale and transfer of investment, discontinuation of investment, or reduction of workforce; (j) shall pay wages and salaries to employees in accordance with applicable laws, rules, procedures, directives and so forth during the period of suspension of investment for a credible reason; (k) shall pay compensation and indemnification in accordance with applicable laws to the relevant employee or his successor for injury, disability, disease and death due to the work; (l) shall supervise foreign experts, supervisors and their families, who employ in their investment, to abide by the applicable laws, rules, orders and directives, and the culture and traditions of Myanmar;
Chapter XVII Insurance Section 73	The investor shall insure the types of insurance stipulated in the provision of the rules at any insurance enterprise which is entitled to carry out insurance businesses within the Union.
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)	Section 15 - If the project proponent uses the owned vehicles the project owner has to ensure the insurance for the injured person. 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.
The Export and Import Law (2012)	

Law and Regulation	Description
Chapter II Objectives Section 3	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.
Chapter IV Prohibitions Section 5	No persons shall export or import restricted, prohibited and banned goods.
Section 6	Without obtaining license, no person shall export or import the specified goods which are to obtain permission.
Section 7	A person who obtained any license shall not violate the conditions contained in the license.
Chapter V Offences and penalties Section 8	Whoever violates the prohibition contained in section 5 or section 6, on conviction, shall be punished with imprisonment for a term not exceeding three years or with fine or with both.
Section 9	A person who obtained any permit violates the prohibition contained in section 7, on conviction, shall be punished with imprisonment for a term not exceeding three years or with fine or with both.
Section 10	A person attempts to commit or abets in the commission of any offence contained in this Law shall be punished in the same manner as if he had been committed such offence and the exhibits shall also be confiscated.
Myanmar Insurance Law (1993)	
Chapter II Establishment and Aim Section 4	The Myanmar Insurance is established with the following aims: - social and economic losses which the people may encounter, due to common perils; (b) to promote the habit of savings individually by effecting life assurance, thus contributing to the accumulation of resource, of the State; (c) to win the trust and confidence of the people in the insurance system by providing effective insurance safeguards which may become necessary in view of the social and economic developments.
Chapter VI Effecting Insurance and Granting of Benefits Section 15	Owners of motor vehicles shall effect compulsory Third Party Liability Insurance with the Myanmar Insurance.
Section 16	An entrepreneur or an organization operating an enterprise which may cause loss to State-owned property or which may cause damage to the life and property of the public or which may cause pollution to the environment shall effect compulsory General Liability Insurance with the Myanmar Insurance.
The Commercial Tax Law (1990) Amended 2014	
Chapter 5 Registration and Intimation of Commencement of Enterprise Article 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.

Law and Regulation	Description
Chapter 6 Monthly Payment of Tax and Sending of Three-Monthly Return Article 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.
Article 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.
Article 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.
Article 12 (d)	The tax paid under sub-section (a), (b) or (c) shall be set-off from the tax due in the assessment.
Article 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.
The Amended Law for Factories Act, 1951 (Amended in 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	
Chapter II Basic Principles Section 3	Private Industrial Enterprises 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 enterprises which are related to the industrial enterprise; (b) to acquire modern technical know-how for raising the efficiency of industrial enterprises 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 enterprises; (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.
Chapter III Registration of Private Industrial Enterprises Section 4	(a) Any person desirous of conducting any private industrial enterprise; (b) Any person conducting any private industrial enterprise on the day this Law is enacted; by using any type of power which is three horsepower and above or manpower of ten wage-earning workers and above shall register under this Law.

Law and Regulation	Description
Chapter VI Duties and Rights of the Entrepreneur Section 13	The duties of the entrepreneur are as follows: - (b) shall abide by the terms and conditions of the registration certificate; (l) shall shift the place of enterprise, change the nature of enterprise, amalgamate enterprises and split up enterprises only with the approval of the Directorate; (g) shall abide by the orders and directives issued from time to time by the Ministry and the Directorate;
The Prevention of Hazard from Chemical and Related Substances Law, 2013	
Chapter II Aims Section 3	This law was enacted with the objectives of: a. To protect from being damaged the natural environment resources and being hazardous any living beings by chemical and related substances; b. To supervise systematically in performing the chemical and related substances business with permission for being safety; c. To perform the system of obtaining information and to perform widely educative and research for using the chemical and related substance systematically; d. To perform the sustainable development for the occupational safety, health and environmental conservation. 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.
Section 15	A person who has obtained a licence, before starting the respective chemical and related substances business: - (a) shall be inspected for the safety and the power of resistance of the machinery and equipment by the respective Supervisory Board and Board of Inspection; (b) shall be attended the person who serve in the work to the respective foreign trainings or the trainings and the expert trainings on prevention of hazard from the chemical and related substances opened by the government department and the government organizations.
Section 16	A person who has obtained a licence: - (a) shall abide the licence regulations; (b) shall perform to abide strictly the instructions for being safety in using the chemical and related substances by himself and also the persons who serve the work; (c) shall keep the required safety equipment enough in the chemical and related substances businesses, furthermore shall grant the personal protection equipment and dresses free of charge to the working persons; (d) shall make the course of training and study and instruction if necessary to the working persons for using the occupational safety equipment, the personal protection equipment and the dresses systematically in the chemical and related substances business; (e) shall be inspected by the respective Supervisory Board and Boards of Inspection in respect of whether or not the hazard may impact on the Human Being and Animals' health and the environment; (f) shall make medical checkup the working persons who will work in the chemical and related substances business and shall permit to serve in that work after obtaining the recommendation that his health is suitable for that work. This medical checkup records shall be kept systematically; (g) shall send the copy of informative letter of the permission to the

Law and Regulation	Description
	respective Department of Township Administration, if the hazardous chemical or related substances are permitted to store; (h) shall acquire in advance the guidance and agreement of the respective Department of Fire Brigade, if the business that is worried to fire hazard is operated by using the fire hazard substances or the explosive substances; (i) shall transport only the permitted amount of the chemical and related substances in accordance with the prescriptive stipulations, if they are transported in local; (j) shall take the permission from the Central Supervisory Board if the chemical and related substance is altered and transferred from one place to any other place which contained in the license; (k) shall abide and perform in accordance with the related environmental laws not to impact and damage to the environment in operating the chemical and related substances business.
Section 17	A person who has obtained a licence, shall put the insurance in accordance with the prescriptive stipulations to be able to pay the compensation, if the impact and damage is occurred on the Human Being and Animals or the environment in respect of the chemical and related substances businesses.
Section 22	A person who has obtained the registration certificate shall abide the regulations consisted in the registration certificate furthermore shall also abide the order and instructions issued occasionally by the Central Supervisory Board.
Chapter IX Hazard Control and Decrease Section 27	A person who has obtained the licence to be complied the following matters to control and decrease the hazard of the chemical and related substances: - (a) classifying the hazard level to protect in advance the hazard according to the properties of the chemical and related substances; (b) expressing the Material Safety Data Sheet and Pictogram; (c) providing the safety equipment, the personal protection equipment to protect and decrease the accident and attending to the training to be used systematically; (d) performing in accordance with the stipulations in respect of transporting, possessing, storing, using, discharging the chemical and related substances;
Petroleum and Petroleum Product Law (2017)	
Chapter II Objective Section 3	The Objectives of this law are as follows: a.to carry out the petroleum and petroleum product businesses activities systematically in accordance with the provisions of the law, stipulated standards, procedures and conditions; b.to enable the petroleum and petroleum product business activities to carry out safely without environmental impact; c.to establish free and fair competition in carrying out petroleum and petroleum product business activities; d.to secure energy requirement and energy security of the Union; e.to obtain tax revenue of the Union
Chapter IV Application for Licence, Issue of Permit, Determining Conditions to be abided by, and Supervision Section 9	The Ministry of Transport and Communications shall carry out the following functions relating to any petroleum and petroleum product; a. issuing licence to vehicles, vessels and barges that carry any petroleum and petroleum product; b. determining period, form, conditions, means of applying for licence,

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	permitting authority and fees to be assessed, for licences under subsection (a); c. determining and supervision on ports for vessels and barges that carry out import, export, and transport by water in accord with procedures; d. taking action, as necessary, in accordance with the existing laws if it occurs spill or accident in carrying out import, export, transport, and sale and distribution of petroleum and petroleum product by water; e. determining procedures and conditions to be abided by in carrying out transport business except transport by pipeline.
Section 10	The Ministry of Natural Resources and Environmental Conservation shall carry out the following functions relating to any petroleum and petroleum product; a. issuing licence for the right to store for the storage tanks and warehouses; b. issuing transport permit for the vehicles, vessels and barges that shall carry any petroleum and petroleum product; c. determining the period, form and terms and conditions, manners of applying licence, permitting authority and fees to be assessed, for licence under subsection (a) and permit under subsection (b); d. if it occurs environmental impacts in carrying out petroleum and petroleum product business activities, taking action, as necessary, in accordance with the existing laws of on-site inspection; e. determining, in coordination with ministries concerned, procedures and conditions relating to standard and quality of storage tanks and warehouse, and tanks of vehicles, vessels and barges that carry any petroleum and petroleum product.
Section 11	On all receptacles containing any dangerous petroleum and petroleum product, the warning sign of danger by stamping, embossing, painting, printing or any other means shall be expressed. If it is impossible to express as such, similar warning signs of the nature of danger of gasoline, spirit or petroleum shall be expressed in writing at the ostensible place in salient words or signs near the receptacle.
Chapter VI Prohibition Section 31	Any licensee: a. shall not violate any prohibition contained in the rules, regulations, by-laws, notifications, orders, directives, procedures and conditions or fail the duty to implement; b. shall not use a receptacle and transport vehicles and pipelines that contains any dangerous petroleum and petroleum product without saliently mentioning in writing of warning signs; c. shall not import, transport, store and sell and distribute the dangerous petroleum and petroleum product, or non-dangerous petroleum and petroleum product except by the means stipulated in this law; d. shall not have the right to carry out without undertaking the environmental impacts, in operating petroleum and petroleum product business activities; e. shall not distribute and sell petroleum and petroleum products which do not fulfill or are not in conformity with the standard, quality and measurement.
Industrial Use Explosive Substances Law, 2018	
Objective:	The objectives of Industrial Use Explosive Substances Law (2018) are as follow: (a) to make, import, transport, store and use of exploiting materials that explode in the workplace must be carefully handle and use.

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	(b) to take care of safety in the workplace which use yarns and accessories (c) to properly supervise the use of explosive materials in the workplace.
Chapter 7 Prohibitions Article 18	Any license holder shall not be refused to perform the inspection of the inspector or the inspector general.
Article 19 (b)	Under Section 8, any explosive materials shall not be destroyed materials without the approval of the Defense Ministry's Executive Board.
Article 19 (c)	Rules and Regulations, orders, disciplines, instructions issued under this law must not fail to act.
The Law on Standardization (2014)	
Chapter (II) Objectives Section 3	The objectives of this Law are as follows: (a)to enable to determine Myanmar Standards; (b)to enable to support export promotion by enhancing quality of production organizations and their products, production processes and services; (c)to enable to protect the consumers and users by guaranteeing imports and products are not lower than prescribed standard, and safe from health hazards; (d)to enable to support protection of environment related to products, production processes and services from impact, and conservation of natural resources; (e)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; (f)to support on establishing the ASEAN Free Trade Area and to enable to reduce technical barriers to trade. (g)to facilitate technological transfer and innovation by using the standards for the development of national economic and social activities in accordance with the national development programme.
Chapter 7 Taking Action by Committee No. 19	The committee may, if it is found out that holder of certificate of certification violates any term or condition contained in the relevant recommendation, pass any of the following administrative order: warning suspending the certificate of certification for limited period cancelling the certificate of certification
Chapter (VI) Application for and Issue of Certification Section 17	A person desirous of obtaining certificate of certification shall apply to the department and organization which has obtained the accreditation.
Chapter (VII) Taking Action by Committee Section 19	The Committee may, if it is found out that holder of certificate of certification violates any term or condition contained in the relevant recommendation, pass any of the following administrative orders: (a)warning; (b)suspending the certificate of certification for limited period; (c)cancelling the certificate of certification
Chapter (IX) Offences and Penalties Section 26	If any person who obtained certificate of certification uses standardization mark on the product which is not in conformity with the relevant standard or relating to service shall be punished with imprisonment for a term not exceeding one year or with fine not more than one million Kyats or with both.

Law and Regulation	Description
The Labour Organization Law (2011)	
Chapter V Rights and Responsibilities of the Labour Organization Section 17	The labour organizations shall have the right to carry out freely in drawing up their constitution and rules, in electing their representatives, in organizing their administration and activities or in formulating their programmes. The Labour Organizations have the right to negotiate and settle with the employer if the workers are unable to obtain and enjoy the rights of the workers contained in the labour laws and to submit demands to the employer and claim in accord with the relevant law if the agreement cannot be reached.
Section 18	The labour organization has the right to demand the relevant employer to re-appoint a worker if such worker is dismissed by the employer and if there is cause to believe that the reasons of such dismissal were based on labour organization membership or activities, or were not in conformity with the labour laws.
Section 19	The labour organizations have the right to send representatives to the Conciliation Body in settling a dispute between the employer and the worker. Similarly, they have the right to send representatives to the Conciliation Tribunals formed with the representatives from the various levels of labour organizations.
Section 20	In discussing with the Government, the employer and the complaining workers in respect of worker's rights or interests contained in the labour laws, the representatives of the labour organization also have the right to participate and discuss.
Section 21	The labour organizations have the right to participate in solving the collective bargains of the workers in accord with the labour laws.
Section 22	The labour organizations shall carry out peacefully in carrying out holding of meetings, going on strike and carrying out other collective activities in accord with their procedures, regulations, by-laws and any directives prescribed by the relevant Labour Federation.
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.	
Chapter II Objectives Section 3	The objectives of this Law are as follows: <ul style="list-style-type: none"> (a) to support the development of the State's economy through the development of production by causing to enjoy more security in social life and health care by the workers who are major productive force of the State by the collective guaranty of the employer, worker and the State; (b) to enjoy more security in social life and medical care by the public by effecting their insurance voluntarily; (c) to raise public confidence upon the social security scheme by providing benefits which are commensurate with the realities; (d) to have the right to draw back some of the contributions paid by the employers and the workers as savings, in accord with the stipulations; (e) to obtain the right to continued medical treatment, family assistance benefit, invalidity benefit, superannuation benefit, survivors' benefit, unemployment benefit, the right to residency and ownership of housing after retirement in addition to health care and pecuniary benefit for sickness, maternity, death, employment injury of the workers.

Law and Regulation	Description
Chapter V Social Security System and Benefits Section 11	(a) The following establishments shall be applied with the provisions for compulsory registration for social security system and benefits contained in this Law if they employ minimum number of workers and above determined by the Ministry of Labour in co-ordination with the Social Security Board: (i) production industries doing business whether or not they utilize mechanical power or a certain kind of power, works of production, repairing or services, or engineering works, mills, warehouses, establishments; (ix) works carried out with foreign investment or citizen investment or joint ventured businesses; (b) Any establishment which is applied with the provisions of compulsory registration under sub-section (a) shall continue to be applied by this Law even though any of the following situations occurs if it continues to carry out such work: (i) carrying out work by employing under stipulated minimum number of workers but more than one worker; (ii) changing the employer or changing the type of business.
Social Security System Section 13	The Social Security Board shall manage and keep the following social security systems in accord with the stipulations that insured persons may enjoy social security benefits: (b) Family Assistance Insurance System: i) education allowance benefit for the children of insured persons who earn below the specified amount of income; ii) health care and aid benefit in time of natural disaster; iii) suitable benefit for dependent family members.
Section 15	(a) The following funds are included in the Social Security Fund: (i) health and social care fund; (ii) family assistance fund; (iii) invalidity benefit, superannuation pension benefit, and survivors' benefit fund; (iv) unemployment benefit fund; (v) other social security fund for social security system of compulsory registration and contribution specified by the Ministry of Labour, in co-ordination with the Social Security Board, according to clause (2) of subsection (e) of section 13; (vi) other social security fund specified as to which contribution may be paid after voluntary according to clause (2) of sub-section (e) of section 13; (vii) fund for Social Security Housing Plan;
Section 18	(b) The employer shall deduct contributions to be paid by worker from his remuneration and pay to the social security fund together with contribution to be paid by him. The employer shall also bear the expenses for such contribution.
Chapter VI Application to Employment Injury Benefit Insurance System, Employment Injury Benefit Fund and Benefits Section 45	The provisions contained in this Law relating to the employment injury benefit insurance system shall apply to the following workers: (a) workers at establishments which are applied to social security system who have registered compulsorily in accord with sub-section (a) of section 16 and contributed to the social security funds contained in clauses (1), (3), (4) and (5) of sub-section (a) of section 15; (b) workers specified as being applied to provisions of compulsory registration for employment injury benefit insurance system by notification of the Ministry of Labour, in co-ordination with the Social Security Board

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	with the approval of the Union Government.
Section 48	<p>(a) The employer shall effect insurance by registering for employment injury benefit insurance system contained in section 45 at the relevant township social security office and pay contribution to employment injury benefit fund in accord with stipulations in order that workers applied to provisions of compulsory registration may obtain the employment injury benefits;</p> <p>(b) The employers may effect insurance by registering voluntarily for insurance of the workers who are not applied to provisions of compulsory registration for employment injury benefit insurance system, by paying stipulated contribution to employment injury benefit insurance fund;</p> <p>(c) When registering to effect insurance for employment injury benefit in accord with sub-sections (a) and (b), the worker shall submit medical certificate.</p>
Section 49	<p>Non-application to the Workmen's Compensation Act</p> <p>(a) The employers and insured persons of establishments where the employer had registered compulsorily in accordance with sub-section (a) of section 48 or where the employer had registered voluntarily in accord with sub-section (b) of section 48 who have paid contribution to employment injury benefit fund shall not apply to the provisions contained in the Workmen's Compensation Act as regards the employment injury benefit;</p> <p>(b) The insured persons who has effected insurance for employment injury benefit in accord with sub-sections (a) and (b) of section 48 shall be entitled only to the employment injury insurance benefits contained in this Law.</p>
Section 53	<p>(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;</p>
Section 75	<p>The employer of establishments applied by this Law:</p> <p>(a) shall prepare and keep the following records and lists correctly and submit to the relevant township social security office in accord with the stipulations:</p> <ul style="list-style-type: none"> i) records and lists of workers' daily attendance; ii) records of appointing new worker, employing worker by changing of work, suspension from work, dismissal from work and resignation from work; iii) records of promotion and paying remuneration; iv) records and lists of employers, managers, and administrators; and records of changes of them; <p>(b) shall inform the relevant township social security office if the following matters arise:</p> <ul style="list-style-type: none"> i) change in number of workers and address of establishment; ii) change of employer, change of business, suspension from work, and termination of work; iii) employment injury, employment death, and occupational diseases; <p>(c) shall produce work records and lists on requirement of inspection team or official assigned duty under this Law by the Social Security Head Office and various Regional Social Security Offices.</p>
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	

Law and Regulation	Description
	<p>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.</p>
Section 23	<p>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.</p>
Section 24	<p>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.</p>
Section 25	<p>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.</p>
Section 38	<p>No employer shall fail to negotiate and coordinate in respect of the complaint within the prescribed period without sufficient cause.</p>
Section 39	<p>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.</p>
Section 40	<p>The project proponent has to not close the work without negotiation, discussion on dispute in accord with this law, decision by Tribunal</p>
Section 51	<p>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.</p>
Section 46	<p>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.</p>
The Employment And Skills Development Law (2013)	
<p>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.</p>	
<p>Chapter (2) Employment and Employment Seeking Section 3</p>	<p>The Ministry shall manage the facilities and measures to help for selection of employment, obtaining employment for employment seeker suitable according to the age and strength; tenure in employment and skill development, and to help employers for obtaining workers suitable for the employment</p>
<p>Chapter (3) Making Contract of Employment Section 5</p>	<p>(a)(1) After the employer has employed a worker for any job, he shall within 30 days of so doing, sign a Contract of Employment with the worker. This clause however shall not apply to permanent workers of government departments and organizations. (2) If prior to employment, the worker is required to attend any per-employment training for a period or appointed on probation for a period, sub-section (1) shall not apply for that period.</p>

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	(c) The workplace rules in the Employment Contract shall conform to the rules made under existing laws and the rights of the workers in the Contract shall not be less than those in existing laws.
Chapter (5) Implementing Training Programs and Skills Development of Workers 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.
Chapter (8) Establishing and Utilizing Workers' Skills Development Fund Section 30	(a) The employers of Industrial and Service Enterprises shall pay contribution to the fund every month without fail amounting to not less than below 0.5% of the payroll of his workers up to the level of supervisors of the workers. (b) The employer shall not deduct the contribution paid under sub-section (a) to the fund from the wages of the workers.
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.	
Chapter IV Determining the Categories of Work Section 6	The National Committee shall determine, by notification, commercial, production and service, agricultural and livestock breeding business which shall be applied by the provisions relating to minimum wage contained in this Law, in the whole country or relevant Union, Region or State. Moreover, it may amend the said businesses in accord with the changing situation from time to time.
Chapter VII The Duties of the Employer Section 12	The employer: (a) shall not pay wage to the worker less than the minimum wage stipulated under this Law; (b) may pay more than the minimum wage stipulated under this Law; (c) shall not have the right to deduct any other wage except the wage for which it has the right to deduct as stipulated in the notification issued under this Law; (d) shall pay the minimum wage to the workers working in the commercial, production and service business in cash. Moreover, if the specific benefits, interests or opportunities are to be paid, it may be paid in cash or partly in cash and partly in property, with prevailing regional price, jointly according to the desire of the worker; (e) in paying minimum wage to the workers working in the agricultural and livestock business, some cash and some property at prevailing regional price may be paid jointly according to local custom or desire of the majority of workers or collective agreement. Such payment shall be for any personal use and benefit of the worker and his family and the value shall also be considerable and fair.
Section 13	The employer: (a) shall inform the workers the rates of minimum wage relating to the business among the rates of minimum wage stipulated under this Law and advertise it at the workplace to enable to be seen by the relevant workers; (b) shall prepare and maintain the lists, schedules, documents and wages of the workers correctly; (c) shall report the lists, schedules and documents prepared and maintained under subsection (b) to the relevant department in accord

Law and Regulation	Description
	with the stipulations; (d) shall accept the inspection when summoned by the inspection officer. Moreover, he shall produce the said lists and documents upon asking to submit; (e) shall allow the entry and inspection of the inspection officer to the commercial, production and service businesses, agricultural and livestock breeding workplaces and give necessary assistances; (f) if the workers cannot work due to sickness, shall give them holiday for medical treatment in accord with the stipulations; (g) if the funeral matter of the member of the family of worker or his parent occurs, shall give holiday without deducting from the minimum wage, in accord with the stipulations.
Chapter IX Assigning Duty to the Inspection Officer, Inspection and Taking Action Section 18	The inspection officer: (a) has the right to enter and inspect the relevant commercial, production and service workplaces, agricultural and livestock breeding workplaces and inspect whether or not they comply with and carry out in accord with the rules, notifications, orders, directives and procedures under this Law, whether or not the lists, schedules and documents, wages relating to the workers are prepared correctly, and whether or not such lists, schedules and documents are reported to the Department in accord with the stipulations; (b) may summon, inspect the relevant persons under the assignment of duty by the Department, asking and copying for the relevant lists, schedules and documents. (c) if there are outside workers at employer, has the right to inspect information relating to such outside workers, their names and addresses and the right to ask for and copy their lists and documents and lists relating to minimum wage; (d) in carrying out under sub-section (a), (b) and (c) relating to inspection, if required by the employer to produce the document, shall show the civil service identify card issued by the relevant department; (e) report to the Department in accord with the stipulations relating to the finding under sub-sections (a), (b) and (c), and documents and papers called for.
Payment of Wages Law (2016)	
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.	
Chapter II Methods and Time of Payment of Wages Section 3	The employer: (a) shall pay wages to the workers employing in his business in local currency or foreign currencies stipulated by the Central Bank of Myanmar. Such payment may be paid in cash or cheque or deposit into the bank account of the worker with the agreement between the employer and the worker. (b) In paying such wages: (i) if it is necessary to pay particular benefit, profits and opportunities for workers working in commerce, production and service businesses, it may be paid in cash or some in cash and some in things set up by local price on own volition of workers in accordance with the stipulations. (ii) For workers employing in agriculture and livestock breeding business, it may be paid some wage in cash and something set up by local price according to custom, or on the volition of majority of worker or by collective agreement. In paying so, it shall be for personal use and the interest of his family, and shall be appropriate and equitable.

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	(c) If any worker is conscripted under the Public Military Service Law, the (60) days of wages shall be paid as a special right
Section 4	The employer: (a) shall pay wages at the end of the work or at the time agreed to pay to the worker for hourly, daily, weekly or other part time work, or temporary or piece work; (b) shall not exceed one month than the period agreed with the worker under sub-section (a) to pay wages; (c) shall pay the wages for the permanent work monthly. In making such payment: (i) if workers are not more than 100, wages shall be paid at the end of the period for payment of wage; (ii) If workers are more than 100, it shall be paid no later than five days after the end of the period for payment of wage; (d) shall pay the due wages within two working days from the date of termination, if a worker is terminated; (e) shall pay the wages at the end of the period for payment of wages, if a worker resigns on his own volition by sending prior written notice of resignation; (f) shall pay the due wages to a legal heir within two working days after the decease, if a worker is deceased; (g) shall pay all wages on a working day
Section 5	If an employer encounters difficulties to make payment under sub-section(c) of the Section 4 due to any unexpected condition, including natural disaster, the employer shall submit that which date has been altered for the payment of wages with the consent of the workers to the Department on reasonable ground.
Chapter III Deduction from Wages Section 13	The employer: (a) may deduct from wages, except leaves which are entitled wages under the relevant law and public holidays, for the absent period from work; (b) may deduct expenses which are allowance accommodation and ferry service are arranged by the employer, meal allowance, electricity charges, water service charges and income taxes liable to be paid by worker and cash paid in excess under a mistake, which are not included in the expression of wages under this Law; (c) may deduct advance payment or reimburse or savings for the worker or any contribution under any law demanded by a worker from wages; (d) may deduct from the wages of the worker under a decision of a Court or Arbitration Council or Arbitration Body.
Chapter IV Overtime Wages Section 14	The worker has the right to enjoy overtime wages stipulated by the law if he works over time.
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.	
Chapter VII The Duties of the Employee Section 12	The employer: (a) shall not pay wage to the worker less than the minimum wage stipulated under this Law

Law and Regulation	Description
	<p>(b) may pay more than the minimum wage stipulated under this Law;</p> <p>(c) shall not have the right to deduct any other wage except the wage for which it has the right to deduct as stipulated in the notification issued under this Law;</p> <p>(d) shall pay the minimum wage to the workers working in the commercial, production and service business in cash. Moreover, if the specific, benefits, interests or opportunities are to be paid, it may be paid in cash and partly in property, with prevailing regional price, jointly according to the desire of the worker;</p> <p>(e) in paying minimum wage to the workers working in the agricultural and live stock business, some cash and some property at prevailing regional price may be paid jointly according to local customer desire of the majority of workers or collective agreement. Such payment shall be for any personal use and benefit to the worker and his family and the value shall also be considerable and fair.</p>
Section 13	<p>The employer:</p> <p>(a) shall inform the workers the rates of minimum wage relating to the business among the rates of minimum wage stipulated under this Law and advertise it at the workplace to enable to be seen by the relevant workers;</p> <p>(b) shall prepare and maintain the lists, schedules, documents and wages of the workers correctly;</p> <p>(c) shall report the lists, schedules and documents prepared and maintained under subsection (b) to the relevant department in accord with the stipulations;</p> <p>(d) shall accept the inspection when summoned by the inspection officer. Moreover, he shall produce the said lists and documents upon asking to submit;</p> <p>(e) shall allow the entry and inspection of the inspection officer to the commercial, production and service businesses, agricultural and livestock breeding workplaces and give necessary assistances;</p> <p>(f) if the workers cannot work due to sickness, shall give them holiday for medical treatment in accord with the stipulations;</p> <p>(g) if the funeral matter of the member of the family of worker or his parent occurs, shall give holiday without deducting from the minimum wage, in accord with the stipulations.</p>
<p>Chapter VIII The Rights of the Workers Relating to the Minimum Wage Section 14</p>	<p>A worker working in any establishment relating to this Law:</p> <p>(a) has the right to obtain the minimum wage stipulated under this Law or, if the employer pay more than the said wage;</p> <p>(b) has the right to continue to enjoy the pay paid more, if the pay received is more than the minimum wage stipulated under this Law, before the coming into force of this Law;</p> <p>(c) has the right to enjoy the minimum wage stipulated under this Law, if the minimum wage contained in the employment agreement is less than the minimum wage stipulated under this Law;</p> <p>(d) has the right to enjoy not less than the minimum wage stipulated for each work where he is working when working in two or more works;</p> <p>(e) has the right to enjoy the stipulated minimum wage for the time worked in the part-time job, hourly job;</p> <p>(f) has the right to enjoy a holiday per week with pay in the salary-paid work. If he is employed in such holiday, he shall have the right to obtain over-time fee in accord with the existing law;</p> <p>(g) if working less than the working hours per day stipulated in a</p>

Law and Regulation	Description
	<p>daily-waged job is not due to reduced working according to the desire of the worker, or if work has to be paused due to the failure of employer to give job, the full wage shall be paid as if the work is done full-time;</p> <p>(h) has the right to enjoy the stipulated minimum wage without discriminating between man and woman;</p> <p>(i) has the right to enjoy the minimum wage in cash, if he is a worker working in the commercial, production and service business. Moreover, if the specific benefits, interests or opportunities are to be paid, it may be paid in cash or partly in cash and partly in property at prevailing regional price jointly according to the desire of the worker;</p> <p>(j) if he is a worker working in the agricultural and livestock breeding business, the minimum wage may be enjoyed in some cash and some property at prevailing regional price jointly according to local custom or desire of the majority of workers or collective agreement for the worker and his family in accord with the stipulations.</p>
<p>Chapter X Prohibitions and Penalties Section 22</p>	<p>Any employer:</p> <p>(a) shall not fail to pay the workers the minimum wage stipulated under this Law;</p> <p>(b) shall not pay to the workers less than the minimum wages and other benefits which is entitled by the worker under section 14;</p> <p>(c) relating to the accounts, schedules, documents and lists of wage of the workers:</p> <p>(i) shall not make false entry, deceitful recording or false and deceitful reporting;</p> <p>(ii) shall not fail to report to the relevant department in accord with the stipulations;</p> <p>(iii) shall not fail to produce when required by the inspection officer;</p> <p>(d) shall not fail to go and accept inspection when summoned by the inspection officer;</p> <p>(e) shall not obstruct or interfere with the inspection officer who comes and inspects on duty.</p>
<p>Section 24</p>	<p>Any employer:</p> <p>(a) shall not violate any term and condition contained in the minimum wage notification;</p> <p>(b) shall not fail to inform the workers relating to the rates of minimum wage concerning to his workers among the rates of minimum wage stipulated under this Law and announce at the place where the workers are able to see it in the work centre and workplace;</p>
<p>The Leave and Holidays Rules (1951, partially revised in 2018)</p>	
<p>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.</p>	
<p>Chapter (3) Leave Section 23</p>	<p>A worker has the right to take leave with respective wages or with respective salary according to the type of leave and designated period set-up by the law. However, workers are entitled to take earned leave with respective average wages or average salary.</p>
<p>Section 24</p>	<p>Workers have the right to take casual leave, medical leave or maternity leave within the probation period.</p>
<p>Section 25</p>	<p>For days in which a worker is not in the workplace after the end of a period of leave, such days shall not be counted as leave.</p>
<p>Section 26</p>	<p>If there are holidays just before or right after one's leave commences,</p>

Law and Regulation	Description
	these days cannot be counted as part of the leave period.
Section 27	Subjecting a worker to relocation, suspension of duty, reduction of salary or termination within their leave period is not allowed.
Chapter (4) Duties and Responsibilities of Worker Section 49	<p>The worker</p> <p>(a) must ask for leave from the employer or the manager or from an authorized person with Form</p> <p>(1) within the normal working hours.</p> <p>(b) must report to the employer or to the manager or to an authorized person when the worker is back in the workplace after taking leave.</p> <p>(c) must inform employer or manager or authorized person, by phone or any other method, if the worker is unable to return to the workplace from their current location by the end of leave due to natural disaster or unforeseen happenings or accident occurring within the leave period.</p>
Chapter (5) Duties and Responsibilities of an Employer Section 50	<p>The employer</p> <p>(a) must provide the worker casual leave, medical leave and maternity leave with respective wages or salary. Moreover, must allow the worker earned leave with respective average wages or average salary. If the employer normally pays the cost of living, then the cost of living must also be included.</p> <p>(b) must provide the worker with earned leave starting from the day of entitlement within 12 months, with respective average wages or with average salary, and also must advance the entitled wage prior to the worker taking leave.</p> <p>(c) must announce the number of entitled earned leave calculations within three months starting from the last day of the 12-month period or entitled earned leave. In this way, workers can take leave by turns (alternatively). Moreover, to fix the eligibility period within which workers can take earned leave.</p> <p>(d) if the worker resigns or is terminated or in case of death, has to pay the respective wages/salary within two business/working days starting from the date of incidence.</p> <p>(e) has to pay the eligible wage/salary for earned leave to his/her official representative (if the worker is deceased).</p> <p>(f) has to pay for the respective earned leave period if there is a temporary or permanent shutdown.</p> <p>has to allow eligible earned leave if the nature of work is less than twelve months.</p> <p>(g) is not allowed to suspend, to reduce the salary, to relocate or to terminate a worker due to the worker taking maternity leave or medical leave.</p> <p>(h) has to fill up Form (1), (2), (3), (4), (5) and (6) according to the law. These forms shall be easily accessible from the Inspector. The employer must maintain these documents for up to twelve months' period.</p> <p>(i) has to record the leave taken in Form (7) and submit to the Inspector not later than every seventh day of each month.</p> <p>(j) wants the worker to work on a gazette holiday, the employer must receive consent from the worker. The employer must submit Form (8) to the Inspector for approval.</p>
Public Health Law (1972)	
Chapter 2 Prevention of Public Health	To ensure the public health include not only employees but also resident people and cooperation with the authorized person or organization of

Law and Regulation	Description
Objectives	health department. This law focuses as follows: The project owner has to cooperate with the authorized person or organization in line with the section 3 and 5 of said law. The project proponent has to abide by any instruction or stipulation for public health under the section 3 of said law. The project proponent has to allow any inspection, anytime, anywhere if it is needed under the section 5 of said law.
Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)	
Chapter 2 Prevention and Response Section 3	(a) In order to prevent the outbreak of communicable diseases, the Department of Health shall implement the following activities systematically under the guidance of the Ministry of Health: (i) immunization of children by injection or orally; (ii) immunization of those who have attained eligible target group including adult by injection or orally, when necessary; (iii) carrying out health education activities relating to communicable disease; (iv) carrying out the activities of surveillance, prevention and control concerning communicable disease; (v) carrying out the activities of medical examination for prevention of communicable disease in cross-border entrance and exit of the country, international airport, seaport, other necessary airport, seaport and bus terminal; (vi) prohibition or restriction of movements at home, hotel, motel and guest house; (vii) isolation of infected person of communicable disease or suspect of being infected there with; (viii) carrying out the activities of spraying, immunization by injection or orally and environmental sanitation necessary for prevention and control according to communicable diseases; (ix) giving advice to and coordinating with relevant Government departments, organizations and non-governmental organizations for construction of healthy housing, obtaining safe drinking water and fresh water for use, proper waste disposal in order to prevent occurrence of communicable disease for workers who are carrying out activities of social and economic development; (x) carrying out other functions prescribed by the Ministry of Health, from time to time.
Section 4	The public shall comply with the measures undertaken by the Ministry of Health and the Department of Health under section 3 in respect of prevention of the occurrence and spread of communicable disease and control thereof."
Section 9	Sub-sections (d) and (e) contained in section 11 of the Prevention and Control of Communicable Diseases Law shall be substituted as follows: "(d) other necessary investigation; (e) prohibition of the right of movement of the vehicle carrying animal or animal product suspected of having epidemic disease."
Section 11	After sub-section (e) of section 14 of the Prevention and Control of Communicable Diseases Law, sub-section (f) shall be inserted as follows: "(f) right of movement of the vehicle carrying animal or animal product suspected of having epidemic disease."
Occupational Safety and Health Law (2019)	

Law and Regulation	Description
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.
Natural Disaster Management Law (2013)	
Chapter II Objectives Section 3	<p>The objectives of this Law are as follows:</p> <ul style="list-style-type: none"> (a) to implement natural disaster management programmes systematically and expeditiously in order to reduce disaster risks; (b) to form the National Committee and Local Bodies in order to implement natural disaster management programmes systematically and expeditiously; (c) to coordinate with national and international government departments and organizations, social organizations, other non-government organizations or international organizations and regional organizations in carrying out natural disaster management activities; (d) to conserve and restore the environment affected by natural disasters; (e) to provide health, education, social and livelihood programmes in order to bring about better living conditions for victims.
Chapter VI Natural Disaster Management Section 13	<p>The department, organization or person that has been assigned responsibility under this Law:</p> <ul style="list-style-type: none"> (a) shall undertake the following functions after laying down the plan in accord with the natural disaster management plans in order to reduce damage and losses that are likely to be caused by natural disaster; <ul style="list-style-type: none"> (i) preparatory and preventive measures for natural disaster risk reduction in pre-disaster period; (ii) emergency responses including search and rescue during natural disaster; (iii) rehabilitation and reconstruction activities for improving better living standard in post disaster period and conservation of the environment that has been affected by natural disaster; (b) shall give priority and protect infants, the elderly, the disabled and women (especially pregnant women or mothers and suckling mother) in carrying out the functions contained in sub-section (a); (c) shall refrain from the act that causes injuring human dignity in supporting the victims.
Chapter VIII Offence and Penalties	Whoever, if the natural disaster causes or is likely to be caused by any negligent act without examination or by willful action which is known that a disaster is likely to strike, shall be punished with imprisonment for a

Law and Regulation	Description
Section 25	term not exceeding three years and may also be liable to fine.
Section 26	Whoever interferes, prevents, prohibits, assaults or coerces any natural disaster management to the department, organization or person assigned by this Law shall, on conviction, be punished with imprisonment for a term not exceeding two years or with fine or with both.
Section 27	Whoever misinforms about the natural disaster for the purpose of dread to the public shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both.
Section 28	Any department, organization or person assigned by this Law commits any of the following acts or omissions shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both: (a) falsification of data on damage and losses caused by natural disasters dishonestly; (b) willful failure to perform assigned responsibility.
Section 29	Whoever violates any prohibition contained in rules, notifications and orders issued under this Law shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both.
Section 30	Whoever commits any of the following acts or omissions shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both: (a) willful failure to comply with any of the directives of the department, organization or person assigned by this Law to perform any of the natural disaster management; (b) entering into the area or building affected by natural disaster without permission; (c) utilizing, trading, preventing or destroying food, relief items and rehabilitation materials provided for victims dishonestly; (d) making a false application for food, relief items and rehabilitation materials or cash assistance to the department, organization or person assigned by this Law as it is affected by natural disaster.
Section 31	Whoever fails willfully to comply with the direction of remove or evacuation from an area or building at risk natural disaster to the public in such place for the purpose of reduction of damage and losses when the natural disaster strikes or it will be a natural disaster and for the purpose of no obstruction to the prevention and reduction activities of the natural disaster shall, on conviction, be punished with imprisonment for a term not exceeding one month or with fine or with both.
Myanmar Engineering Council Law, 2013	
Chapter 2 Objectives Section 3	The Objectives of this law are as follows: (a) to develop the dignity, ethical principles and ability of Myanmar citizen engineers, graduate technologists and technicians who are working in the engineering services (b) to explore beneficial, useful and good methods to research and develop the State's natural resources and human resources with the least environmental impact by a combination of engineering technology and information technology; (c) to guide, control, maintain and take necessary action with regard to specified standards and norms relating to specified subjects, systematic methods, safety and ethical principles and duties in teaching engineering subjects and in technological research and services; (d) to perform engineering and technological activities of the State and

Law and Regulation	Description
	tasks assigned by the relevant ministry or organization from time to time;
Chapter 13 Prohibitions and Penalties Section 37	No one shall perform any engineering work and technological work which are specified as being dangerous to the public by a rule enacted under this law without having received a registration certificate issued by the council, except for engineers appointed in a government department or an organization in the performance of their duties.
Section 37	No engineer, graduate technologist and technician shall use, together with his name, a title which is not compatible with his status.
Section 38	No registered engineer, graduate technologist and technician- (a) shall transfer his registration certificate to anyone or allow it to be used by anyone; (b) shall fail to return his registration certificate to the council within 30 days from the day on which a decision is passed, or an administrative action is taken, under this law to cancel the registration certificate.
Section 39	Anyone convicted of having violated the prohibition contained in section 37 shall be punished with imprisonment for not more than 2 years or with a fine or with both.
Section 40	any registered engineer, graduate technologist or technician convicted of having violated the prohibition contained in section 38 shall be punished with imprisonment of not more than 1 year or with a fine or with both.
Section 41	Any registered engineer, graduate technologist or technician convicted of having violated the prohibition contained in 39 shall be punished with imprisonment of not more than 1 year or with a fine or with both.
Section 42	Any registered engineer, graduate technologist or technician convicted of having violated any prohibition under this law shall be punished with imprisonment of not more than 6 months or with a fine or with both.
Myanmar Fire Brigade Law, 2015	
Chapter II Objectives Section 3	The objectives of this Law are as follows: (a) to prevent destruction of State-owned property, private property, cultural heritage and the lives and property of the public by fire and other natural disaster; (b) to organize the Fire brigade systematically and to train members of the fire brigade; (c) to carry out extinguishing fire, prevention and search and rescue when fire, other natural disaster, epidemic disease or any kind of sudden disaster occurs; (d) to educate, organize and incite extensively so as to achieve public cooperation when any disaster occurs; (e) to participate and help, if necessary, for the State safety, peace of the public and the rule of law
Chapter VIII Activities for Fire Safety Section 15	The different levels of Fire Safety Body shall: (a) perform the activities for fire safety in accord with the procedures laid down by the Central Body; (b) organize and educate to obtain the cooperation of the public in the activities for fire safety; (c) supervise as may be necessary the participation of all the relevant members of fire brigade in accord with the work programmes laid down by the Central Body when fire hazard, other natural disaster, epidemic disease or sudden disaster occurs; (d) appoint fire safety warning groups in coordination with the relevant administrative organizations.

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Section 16	The person-in-charge of the Township Fire Services Department shall: (a) issue, from time to time, the directives on fire safety to be abided by the residents in the city, ward or village - tract; (b) inspect or cause to inspect in accord with the stipulations whether the residents in the city, ward or village - tract abide by the directives issued under sub-section (a) and arrange to enable warning or taking action, as may be necessary, against those who do not abide by.
Chapter XI Prohibitions Section 24	No person shall fail to abide by the directives of fire safety issued under section 16 by the head of the relevant Township Department of Fire Services.
Section 25	The owner or manager of the factory, workshop, bus terminal, airport, port, hotel, motel, lodgings, condominium, market, department, organization or business exposed to fire hazard shall, in accord with the directive of the Department of Fire Services: (a) not fail to form the Reserve Fire Brigade; (b) not fail to provide fire safety equipment.
Section 26	No person shall, knowing that there is no outbreak of fire, report fraudulently the outbreak of fire to the Fire brigade.
Section 25	No person shall, without cause, obstruct, block, disturb, or attack the members of the fire brigade and vehicles which departed to extinguish the fire and direct by any means to the place which is not related to the outbreak of fire.
Protection and Preservation of Cultural Heritage, 1998	
Chapter II Objectives Section 3	The objectives of this Law are as follows: (a) to implement the protection and preservation policy with respect to perpetuation of cultural heritage that has existed for many years; (b) to protect and preserve the cultural heritage regions and the cultural heritage therein so as not to deteriorate due to natural disaster or man-made destruction; (c) to uplift hereditary pride and to cause dynamism of patriotic spirit of citizens by protecting and preserving the cultural heritage regions. (d) to promote public awareness and will as to the high value of the protection and preservation of the cultural heritage regions; (e) to protect the cultural heritage regions from destruction; (f) to carry out protection and preservation of the cultural heritage regions in conformity with the International Convention approved by the State.
Chapter VI Applying for Prior Permission, Scrutinizing and Issuing Section 13	A person desirous of carrying out one of the following shall abide by the provisions of other existing laws and also apply to the Department in accordance with stipulations to obtain prior permission under this Law : (a) within the ancient monumental zone or the ancient site zone: (1) constructing or extending a building; (2) renovating the ancient monument or extending the boundary of its enclosure; (b) within the protected and preserved zone, constructing, extending, renovating a hotel, motel, guesthouse, lodging house or industrial building or extending the boundary of its enclosure; (c) within the cultural heritage region (1) carrying out the renovation and maintenance work of the ancient monument without altering the original ancient form and structure or original ancient workmanship;

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	(2) carrying out archaeological excavations; (3) building road, constructing bridge, irrigation canal and embankment or extending the same.
Chapter VII Prohibitions Section 22	No person shall construct a building which is not in conformity with the conditions prescribed region wise by the Ministry of Culture in the cultural heritage region.
The Protection and Preservation of Ancient Monument Law (2015)	
Purpose	To ensure the protection of the ancient monument and information about it if it was in the project area. This law focuses as follows;
Section 12	-The project proponent has to report to the village-tract or ward administrators if the project proponent will find any ancient monument under the ground or on the ground or under the water.
Section 15	The project proponent has to obtain the prior permission of the Department of Ancient Research Museum if the project area is in the prescribed area of the Ancient monument.
Sub-section (f) of section 20	The project proponent has to obtain the prior permission, by written, of Department of Ancient Research and National Museum if the project proponent disposes of the chemical and solid waste in the Ancient Monument.
The Conservation of Water Resources and Rivers Law, 2016	
Chapter II Aims Section 3	The aims of this Law are as follows: (a) to conserve and protect the water resources and rivers system for beneficial utilization by the public; (b) to smooth and safety waterways navigation along rivers and creeks; (c) to contribute to the development of State economy through improving water resources and river system; (d) to protect environmental impact.
Chapter V Prohibitions Section 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.
Section 11	No person shall: (a) 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. (b) catch aquatic creatures within river-creek boundary, bank boundary or waterfront boundary with poisonous materials or explosives. (c) dispose of disposal soil and other materials from panning for gold, gold mineral dredging or resource production in the river and creek, into the river and creek or into the water outlet gully which can flow into the river and creek.
Section 11	11. No person shall: (a) 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.

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	(b) catch aquatic creatures within river-creek boundary, bank boundary or waterfront boundary with poisonous materials or explosives. (c) dispose of disposal soil and other materials from panning for gold, gold mineral dredging or resource production in the river and creek, into the river and creek or into the water outlet gully which can flow into the river and creek.
Section 19	No one shall dispose of any substance into the river-creek that may cause damage to waterway or change of watercourse from the bank or vessel which is plying, vessel which has berthed, anchored, stranded or sunk.
Section 22	No one shall, without the permission of the directorate, pile sand, shingle and other heavy materials for business purposes in the bank area and waterfront area.
Chapter VI Penalties Section 29	Whoever attempts or conspires or abets in the commission of an offence under this Law shall be punished with the punishment provided for such offence in this Law.
Chapter VII Miscellaneous Section 30	Any government department and organization or any person desirous of constructing drainage, utilizing river water intake, constructing bridges spanning rivers, connecting underground pipe, connecting underground electric power cable, connecting underground telecom cable or digging in rivers and creeks, bank boundary and waterfront boundary, under the requirement of work, shall in order not to adversely affect the water resources and rivers and creeks, carry out only after obtaining the approval of the Ministry of Transport.
Underground Water Act (21st June, 1930)	
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.	
Section 3	No person shall sink a tube for the purpose of obtaining underground water except under and in accordance with the terms of a licence granted by the water officer. Every person owning a tube which was in existence before the extension of this Act to the local area concerned shall apply to the water officer for a licence for the said tube, and such licence shall be granted free of charge.
Section 5	Every person obtaining or attempting to obtain underground water shall supply the water officer with such information as the President of the Union may by rule prescribe.
Section 6	The President of the Union may make rules 1- (a) prescribing the conditions subject to which licences may be granted by the water officer under section 3; (b) prescribing the form of and the procedure for granting such licences and the fees payable for the issue thereof; (c) prescribing the information to be supplied to the water officer under section 5.
The Electricity Law (2014)	
In 2014, the new Electricity Law, a comprehensive piece of legislation covering licensing, a new	

Law and Regulation	Description
	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.
The Motor Vehicles Law, 2015	
Chapter 2 Objectives Section 3	The main objectives of this law are as follows: (a) For the safe driving of motor vehicles in public areas through registration according to official rules and regulations. (b) To provide driving licenses for driving particular types of motorized vehicles after qualification checks. (c) For the easy flow of road users and for the protection against road risks and vehicle perils. (d) To avoid traffic congestion and to use high technology transportation systems efficiently in order to implement protection against road risks and vehicle perils. (e) To reduce environmental pollution caused by motor vehicles.
Chapter (3) Motor vehicle registration Section 4	Every owner of a motor vehicle must register the vehicle with the registration officer.
Section 5	The owner of a motor vehicle must maintain the vehicle in a safe condition equal to the standard condition.
Section 6	The registration officer may not register the motor vehicle if the vehicle is disqualified for failing to comply with safety standards or the engine is broken or if the applicant has failed to disclose previous facts about former registrations of the vehicle.
Section 8	(a) The owner of the vehicle can request the registration officer to issue a temporary registration according to the regulations. (b) The temporary registration according to this section cannot be valid for more than three months. And this law does not allow temporary registration more than one time.
Section 10	The owner of a vehicle must notify the registration officer if the main parts of his/her vehicle needs to be changed or repaired.
Chapter (9) Prohibitions Section 45	No one is allowed to drive, request someone to drive, or park, motor vehicles in public places under the following conditions: (a) The motor vehicle is not registered. (b) The registration has been suspended, revoked or expired; the registration card is not displayed. (c) The registration card has been revoked or is expired.
Section 46	No one is allowed to drive, or allow to drive, motor vehicles in public places without risk insurance for others. This prohibition does not extend to passengers.
Section 47	(a) No one is allowed to drive a motor vehicle in public places without carrying the driving license with him/her. (b) No one is allowed to drive a motor vehicle in public places without a driving license. (c) The owner of, and the person responsible for, a motor vehicle are not

Law and Regulation	Description
	allowed to give permission to someone without a driving license to drive in public places.
Section 50	No one is allowed to do the following in public places: (a) Driving above the speed limit or below the minimum speed. (b) Driving a motor vehicle which endangers others. (c) Driving a motor vehicle after the consumption of narcotic drugs or alcohol.
Section 50	No one is allowed: (a) To operate a business of manufacturing, selling or equipping motor vehicles without a business license. (b) To operate a business of maintaining or repairing motor vehicles without a business license.
The Forest Law, 3rd November, 1992	
Chapter II Basic Principles Section 3	This Law shall be implemented in accordance with the following basic principles: - (a) to implement the forestry policy of the Government; (b) to implement the environmental conservation policy of the Government; (c) to promote the sector of public co-operation in implementing the forestry policy and the environmental conservation policy of the Government; (d) to develop the economy of the State, to contribute towards the food, clothing and shelter needs of the public and for perpetual enjoyment of benefits by conservation and protection of forest; (e) to carry out in accordance with international agreements relating to conservation of forests and conservation of environment; (f) to prevent the dangers of destruction of forest and bio-diversity, outbreak of fires, infestation of insects and occurrence of plant disease; (g) to carry out simultaneously conservation of natural forests and establishment of forest plantations; (h) to contribute towards the fuel requirement of the country.
Chapter III Constitution of Reserved Forest and Declaration of Protected Public Forest Section 8	(a) A standing teak tree wherever situated in the State is owned by the State; (b) The Minister may declare, alter or cancel according to the locality the species of reserved trees which are to be conserved by the Forest Department.
Chapter V Establishment of Forest Plantation Section 16	A person having obtained the right to extract forest produce on a commercial scale who has the responsibility of establishing forest plantations or carrying out natural regeneration under a permit for the State shall carry out the same at his own expense and in accordance with stipulation.
Chapter VI Permission for Extraction of Forest Produce Section 16	A person who has obtained permission for extraction of forest produce shall: - (a) abide by the conditions contained in the permit; (b) abide by the orders, directives, prohibitions and restrictions issued by the Forest Department in accordance with this Law; (c) pay the royalties, security deposits and advances due; (d) affix the mark after measuring in the manner prescribed or affix the property- mark which has been registered.
Chapter VII Removal of Forest Produce	a) Whoever is desirous of moving any forest produce from one township to another within the country shall apply for a removal pass from the

Law and Regulation	Description
Section 23	Forest Officer empowered by the Director- General for this purpose. (b) The provision of sub-section (a) shall not apply to the following cases: - (i) moving forest produce within the area permitted for extraction thereof; (ii) moving minor forest produce not exceeding the prescribed quantity and not on a commercial scale; (iii) moving from one township to another in a City Development area.
Chapter IX Establishment of Wood-based Industry Section 30	A private entrepreneur who is desirous of establishing a sawpit, sawmill, tongue-and-groove mill, plywood mill, veneer mill or a wood-based industry with the exception of wood-based cottage industries and furniture industries has the right to establish the same only after obtaining a permit from the Forest Officer empowered for this purpose.
Chapter X Search, Arrest and Administrative Action Section 34	If a person who has obtained permission to extract forest produce or his agent or his labourer violates any condition of the permit, the person granting permission to extract forest produce may pass any of the following orders: - (a) causing the suspension of the whole or any portion of the work carried out under the permit; (b) causing payment of the prescribed penalty to be made and permitting the work to be carried on; (c) cancelling the permit; (d) cancelling the permit and confiscating the security deposit and advances; if it is considered necessary causing payment of the prescribed penalty.
Chapter XII Offences and Penalties Section 40	Whoever commits any of the following acts shall, on conviction, be punished with fine which may extend to kyats 5,000 or with imprisonment for a term which may extend to 6 months or with both: (a) trespassing and encroaching in a reserved forest; (b) pasturing domestic animals or permitting domestic animals to trespass in a reserved forest; (c) breaking up any land, clearing, digging or causing damage to the original condition of the land without a permit in a reserved forest; (d) causing damage to a water-course, poisoning the water, using chemicals or explosives in the water in a reserved forest; (e) catching animals, hunting or fishing in a reserved forest; (f) kindling, keeping and carrying any fire or leaving any fire burning which may set fire to the forests in a reserved forest; (g) moving forest produce without submitting to examination at the revenue station; (h) violating any provision of the rule, procedure, order, directive or notification issued under this Law
National Land Use Policy, 2014 October	
Chapter I Basic Principles of the National Land Use Policy Section 8	In terms of the National Land Use Policy: (a) It shall use the land resources of the State sustainably and systematically by conserving and protecting them for the interest of all peoples of the State; (b) It shall enact the National Land Law which harmonize the existing laws relating to use of land resources and land tenures in the whole country including rural and urban areas and which may be implemented systematically;

Law and Regulation	Description
	(c) It shall cause to decide the matters relating to land disputes arisen between the land users and the stakeholders transparently and truly in accord with the National Land Law;
Section 8	<p>In implementing the continued entry of the foreign direct investments, sustainable economic development, effectiveness of the environmental conservation and protection, social harmonization, firmness of land tenures, immovable property right and settlement of land dispute:</p> <p>(a) It shall increase responsible undertaking and respect the rule of law;</p> <p>(b) It shall strengthen the clean governance system by carrying out land use management, land tenure management in accord with law systematically and truly;</p> <p>(c) It shall establish modernized systems to enable to have access to correct information relating to land use management and land tenure management;</p> <p>(d) It shall establish the land dispute settlement mechanism which is easily implementable and impartial;</p> <p>(e) It shall arrange and carry out coordination process with the stakeholders transparently.</p>
Chapter II The Situation of the Existing Land Management Mechanism Section 12	The State has arranged and carried out to expand agricultural land use by the State-owned organizations, cooperative societies, associations, joint ventures, other organizations which acquire agricultural land for businesses and individual agriculturalists after forming the Vacant, Fallow and Virgin Lands Management Central Committee under the Notification 44/91 dated 13 th November, 1991.
The Protection of Wildlife and Conservation of Natural Areas Law ,1994 (Amended in 2018)	
Chapter II Objectives Section 3	<p>The objectives of this Law are as follows: -</p> <p>(a) to implement the Government policy for wildlife protection;</p> <p>(b) to implement the Government policy for natural areas conservation;</p> <p>(c) to carry out in accordance with the International Conventions acceded by the State in respect of the protection and conservation of wildlife, ecosystems and migratory birds;</p> <p>(d) to protect endangered species of wildlife and their natural habitats;</p> <p>(e) to contribute for the development of research on natural science;</p> <p>(f) to protect wildlife by the establishment of zoological gardens and botanical gardens.</p>
Chapter V Protected Wildlife Section 15	<p>The Director General shall, with the approval of the Minister:</p> <p>(a) determine and declare endangered species of wild animal which are to be protected according to the following categories:</p> <p>(i) completely protected species of wild animals;</p> <p>(ii) normally protected species of wild animals;</p> <p>(iii) seasonally protected species of wild animals;</p> <p>(b) determine and declare the endangered species of wild plants and their nature habitats thereof;</p> <p>(c) lay down and carry out measures for the preservation of protected wildlife species;</p> <p>(d) co-ordinate with the relevant department or organization if the wildlife which are to be determined for protection are under the administration of another Government department or Government organization.</p>

Law and Regulation	Description
Chapter X Appeal Section 33	A person dissatisfied with an administrative order passed by a Forest Officer may file an appeal to the Director General within 30 days from the date of such order.
Chapter XI Offences Arid Penalties Section 35	Whoever commits any of the following acts shall, on conviction be punished with imprisonment for a term which may extend to 3 years or with fine which may extend to kyats 10,000 or with both: - hunting without a licence; violation of any condition of the hunting licence; raising without permission, for commercial purpose normally protected wild animals and seasonally protected wild animals; causing water and air pollution, causing damage to a water-course or putting poison in the water in a natural area; possessing or disposing of pollutants or mineral pollutants in a natural area; stablishing and operating a zoological garden or a botanical garden without a licence.
Section 36	Whoever commits any of the following acts shall, on conviction be punished with imprisonment for a term which may extend to 5 years or with fine which may extend to kyats 30,000 or with both: - (a) killing, hunting or wounding a normally protected wild animal or seasonally protected wild animal without permission, possessing, selling, transporting or transferring such wild animal or any part thereof without permission; (b) extracting, collecting or destroying in any manner any kind of protected wild plants within the prescribed area without permission; (c) destroying ecosystem or any natural state in the natural area; (d) altering, removing, destroying or obliterating without permission. any boundary mark of a natural area or any boundary mark of a zoological garden or botanical garden administered by the Government or in which the Government has subscribed share capital.
Section 37	Whoever commits any of the following acts shall, on conviction be punished with imprisonment for a term which may extend to 7 years or with fine which may extend to kyats 50,000 or with both: - (a) killing, hunting or wounding a completely protected wild animal without permission, possessing, selling, transporting or transferring such wild animal or any part thereof without permission; (b) exporting without the recommendation of the Director General a completely protected wild animal or a protected wild plant or any part thereof.
Section 38	The provisions of section 36 sub-section (a) or section 37 sub-section (a) shall not apply to: - the possessing as a souvenir or wearing as a traditional custom of any part of normally protected wild animal or a seasonally protected wild animal; the possessing or wearing with a certificate of registration issued under section 27 subsection (b) of any pad of a completely protected wild animal; the possessing, use, sale, transport or transfer of a drug prepared from a part of a protected wild animal.

4.2. AUTHORIZED INSTITUTIONS AND RECOMMENDATIONS

The Ministry of Environmental Conservation and Forestry (MOECA) 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.

4.3. INTERNATIONAL GUIDELINES

Organizations'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.

4.4. INTERNATIONAL AND REGIONAL TREATIES

Myanmar has signed several international treaties related to the environment. However, the contents of those treaties still need to be incorporated into domestic law. Presents a list of the conventions signed by Myanmar to date that are potentially relevant to the Project.

Table 4-2 International and Regional Treaties to Which Myanmar is a Party

Theme	Convention/treaty/agreement	Status*	Focal point
Climate	United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification (UNCCD), Paris, 1994	Accession (1997)	MONREC/FD
Air and climate change	United Nations Framework Convention on Climate Change (UNFCCC), New York, 1992	Ratification	MONREC/ECD, MOT/DMH
	Kyoto Protocol to the Convention on Climate Change, Kyoto, 1997	Accession (2003)	MONREC/ECD
	Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985	Ratification (1993)	MONREC/ECD
	Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 1987 + amendments	Ratification (1993, 2012 for Recent amendments)	MONREC/ECD
	ASEAN Agreement on Transboundary Haze Pollution, Kuala Lumpur, 2002	Ratification (2003)	MONREC
	Paris Agreement to combat climate change and adapt to its effects, 2016	Ratification (2017)	MONREC

Theme	Convention/treaty/agreement	Status*	Focal point
Pollution control	Stockholm Convention on Persistent Organic Pollutants (POPs), Stockholm, 2001	Accession (2004)	MONREC/ ECD
	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 1989	Accession (2015)	MONREC/ ECD
	International Convention for the Prevention of Pollution from Ships (MARPOL), London, 1973 + amendments in 1978	Accession 4/8/1988	MOT
Biodiversity and natural resources	Convention on Biological Diversity (CBD), Rio de Janeiro, 1992	Ratification (1994)	MONREC/ ECD
	Cartagena Protocol on Biosafety to the CBD, Cartagena, 2000	Ratification (2008)	MONREC, MOAI
	Nagoya Protocol on Access and Benefit Sharing (ABS) to the CBD, Nagoya, 2010	Accession (2014)	
	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES),	Accession (1997)	MONREC/FD
Theme	Convention/treaty/agreement	Status*	Focal point
	Washington, D.C., 1973 + amendments (1979 Bonn, Germany)		
	Agreement on Establishment of ASEAN Regional Centre for Biodiversity	Ratification (2009)	MONREC/ FD
	ASEAN Agreement on the Conservation of Nature and Nature Resources, Kuala Lumpur, 1985	Signatory (1997)	MOFA
	Ramsar Convention on Wetlands of International Importance especially as Water-fowl Habitat, 1971 + amendments in 1982 and 1987	Accession (2004)	MONREC/ FD
	MRC Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin – April 1995	Became Dialog Partner with MRC in 1996	Directorate of Water Resources and Improvement of River Systems (DWIR) Ministry of Transport
	Agreement between International Union for Conservation of Nature (IUCN), and the government of the Republic of the Union of Myanmar to establish an IUCN Office in Myanmar. This laid the foundation for future collaboration on addressing challenges and maximizing opportunities related to biodiversity conservation and sustainable development in the country.	31 March 2016 Host Country Agreement (HCA) signed	Forest Department, MONREC

Theme	Convention/treaty/agreement	Status*	Focal point
	Mangroves for the Future (MFF) – MFF was founded on the vision, "Healthy coastal ecosystems for a more prosperous and secure future for coastal communities." The vision was supported by a mission statement, "To promote healthy coastal ecosystems through a partnership-based, people focused and policy relevant approach that builds and applies knowledge, empowers communities and other stakeholders, enhances governance, secures livelihoods, and increases resilience to natural hazards and climate change." https://www.mangrovesforthefuture.org/what-we-do/focus-areas-and-objectives/we-do/focus-areas-and-objectives/	In 2014, Myanmar joined as the 11th member country.	National Coordinating Body (NCB), which is chaired by the Director General of the Forest Department.
Cultural heritage	The Convention for the Protection of the World Culture and Natural Heritage, Paris, 1972	Acceptance (1994)	MOC
	Declaration on ASEAN Heritage Parks	Signatory (2003)	MONREC/ FD
	Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property, 1970	Ratified	National Cultural Central Committee
	Convention for the Safeguarding of the Intangible Cultural Heritage, 2003	Ratified	National Cultural Central Committee
<p>*) All of the terms (Ratification, Accession, Approval and Acceptance) signify the consent of a state to be bound by a treaty and consequently their legal implications are the same. All countries that have ratified, acceded to, approved or accepted a treaty are therefore Parties to it and legally bound by it. (The primary distinction is only between ratification and accession, as only states which have signed a treaty when it was open for signature, can proceed to ratify it. Afterwards, states which have not signed a treaty during the time when it is open for signature can only accede to it. The terms "acceptance" and "approval" are of more recent origin and apply under the same conditions as those that apply to ratification. The uses of these terms have to do with the diversity of legal systems.)</p>			

4.5. COMMITMENT OF FINELINE COMPANY LIMITED

Project proponent shall be 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 Natural Resources and Environmental Conservation (MONREC) in which to conduct an IEE process and 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 IEE and be abided by the environment policy, Environmental Conservation Law and other environmental related rules and procedures. Project proponent shall be responsible for the environmental assessment of factory development as follows:

- 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 promote Corporate Social Responsibility- (CSR) with 2% of the net profit for development of safe, economic and social environment
- To carry out fire safety assessment and ensure adequate and appropriate fire safety measures for employees
- To carry out disposing wastes according to Yangon City Development Committee regulations, protect, and preserve the project environment from pollution of air, water and land by following laws and guidelines lay down by MONREC.

CHAPTER 5 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.

5.1. METHODOLOGY FOR DATA COLLECTION AND ANALYSIS

The followings are methodologies used for Environmental Management Plan (EMP) for this IEE report preparation;

- Onsite Measurements and Analysis – Baseline parameters such as air quality and noise quality of the existing project site during the operation phase were measured onsite. For water quality parameters was also measured on site and sample raw water and waste were sent to respective laboratories for analysis. The analyzed results are mentioned in this chapter.
- Secondary data collection of proposed project site area – Socio economic condition, physical/biological environment, and weather data are collected from official township data of Thanlyin-Kyauktan Township, Yangon Region.

5.2. ENVIRONMENTAL BASELINE STUDY

The filed 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.

To determine the existing baseline ambient air quality status within the project site on 3, May 2022, 8-hours of working period air pollutants level, which include dust (PM₁₀ and PM_{2.5}). To reveal the existing status of baseline air quality, the average ambient air qualities measured were compared with National Environmental Quality (Emission) Guideline. The measurement location point is situated at Latitude 16°40'00"N Longitude 96°17'28"E.

5.2.1. Indoor Temperature and Humidity

Table 5-1 Relative Humidity and Temperature Measure at Proposed Project

Date and Time	Description	Result value	Environmental parameter air station guideline
3 May 2022 (11:00AM to 5:00 PM)	Relative Humidity RH %	49.4 (%)	Present condition
	Temperature	36.3 °C	Present condition



Figure 5-1 Temperature and Humidity Measurement in Operation Area

5.2.2. Air Quality

To determine the existing baseline ambient air quality status within the project site on 3, May 2022, 8-hours of working 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 AQM – 09 air monitoring station. To reveal the existing status of baseline air quality, the average ambient air qualities measured were compared with National Environmental Quality (Emission) Guideline. The measurement location point is situated at Latitude 16°39'58"N Longitude 96°17'25"E.

The contents of CO, CO₂ and SO₂ concentration level are within the limit of NEQ (emission) guideline but particulate matter (PM₁₀, PM_{2.5}) and gases level of Nitrogen Dioxide (NO₂) are also within the National Environmental Quality (Emission) Guideline. Noise in the workshop area is acceptable when compared with National Environmental Quality (Emission) Guideline. The result of light measurement at operation area (inside the production sector) is good condition to the acceptable level of standard.

Table 5-2 Observed Air Quality Results

Parameters	Observed Value	Guideline Value	Unit	Organization	Period
PM ₁₀	25.87	50	µg/m ³	NEQG	24 hrs
PM _{2.5}	21.18	25	µg/m ³	NEQG	24 hrs
SO ₂	11.7	500	µg/m ³	NEQG	10 minutes
NO ₂	22	200	µg/m ³	NEQG	1 hour
O ₃	9.1	100	µg/m ³	NEQG	8 hour
CO	354.6		µg/m ³	NEQG	-

NEQG = National Environmental Quality (Emission) Guideline



Figure 5-2 Outdoor Air Quality Measurement Photos

5.2.3. Noise

The Noise level was measured by using Digital Sound Level Meter for working 6 hours on 3 May 2022. The average noise level in the project site area is presented in Table 5-3 compared with NEQ guideline. However, according to the Noise source monitoring at operation area (inside the production sector) of noise level is normal the acceptable level of National Environmental Quality (Emission) Guideline. [4]

Table 5-3 Noise Level Measurement Result

Date and Time	Location	GPS value	Result value	NEQ Guideline
3.5.2022 (11:00 am to 5:00 pm)	Operation Area	16°39'59"N 96°17'28"E	68.807 dBA	70 dBA

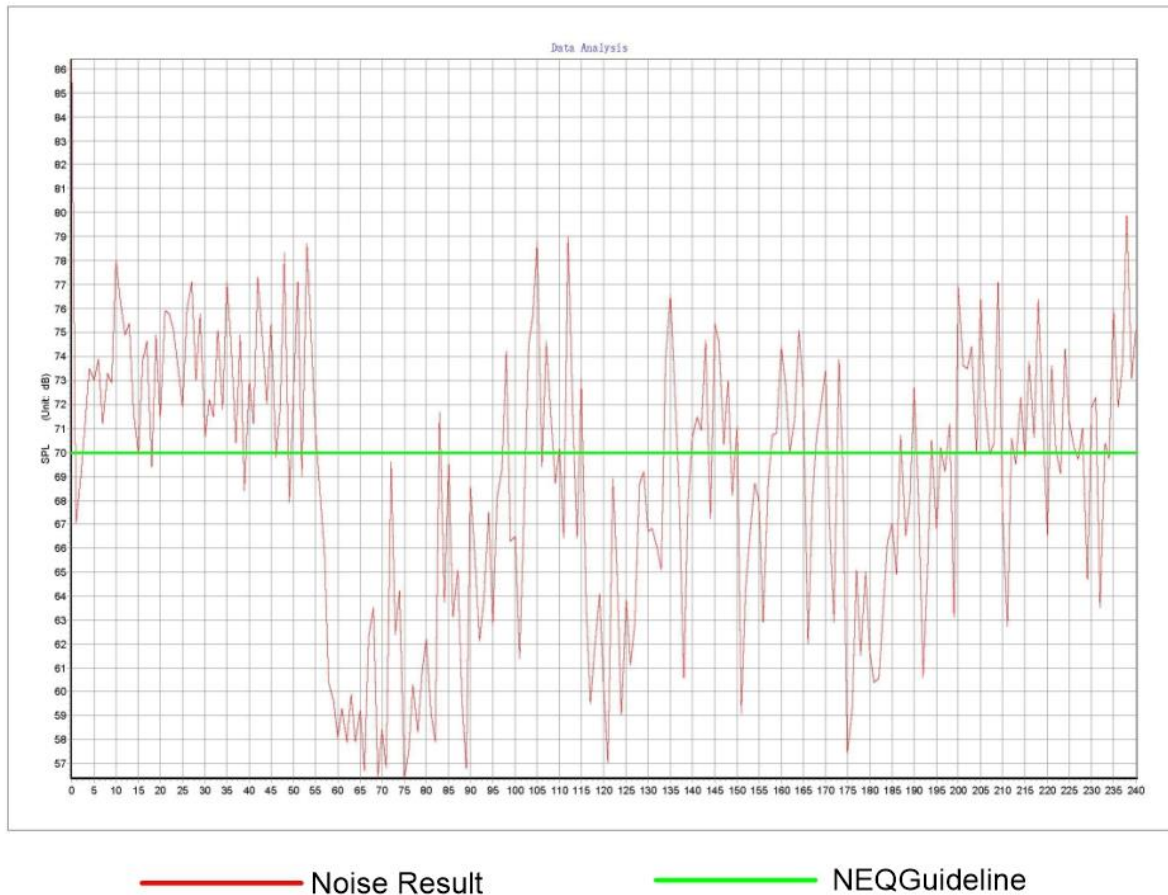


Figure 5-3 Noise Level Result Graph



Figure 5-4 Sound level measurement photo

5.2.4. Light

Activities of the workers in the bag factory are highly dependent on the quality of light. Therefore, the consultant conducted the light measurement in the bags factory is presented. The illustrates the recommended illumination and limiting glare index applicable to typical works (fairly severe to very severe tasks) in bags factory is provided in Table 5-4.

Appropriate lighting is the need for every department, irrespective to the task being handled. Although, there are some areas where focus on maintaining proper illumination is very crucial in a bag 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 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 5-4 Recommended illumination and limiting glare index based on IES Code, 1968

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

Source: Koenigsberger, et al. 1975



Figure 5-5 Light Quantity Measurement Photo

Table 5-5 Result of Light Measurement in FINELINE COMPANY LIMITED

No.	Location	Measure value (Lux)	Standard*
1	Warehouse	394	300
2	Cutting Area	1054	1000
3	Gluing Area	548	1000
4	Sewing Area	624	600
5	QC	1199	600
6	Packing	996	600

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

5.3. PHYSICAL COMPONENT

5.3.1. 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 Thilawa Industrial Zone, Thanlyin Kyauktan Township, and its topographic condition is flat. The proposed project site is primarily agricultural land, but now is initiated into the industrial zone area.

5.3.2. Geology

In Yangon area mainly composed of Pegu Group, Irrawaddy Formation and Alluvium. Alluvial deposits (Pliocene to Recent), the non-marine fluvial sediments of Irrawaddy formation (Pliocene), and hard, massive sandstone of Pegu series (early-late Miocene) underlie the Yangon area. Alluvial deposits are composed of gravel, clay, silts, sands and laterite which lie upon the eroded surface of the Irrawaddy formation at 3-4.6 m above mean sea level (MSL). The rock type in Yangon is mainly soft rocks, which consist of sandstone, shale, limestones and conglomerate. Geological map of Yangon Regional area is shown in Figure 5-6.

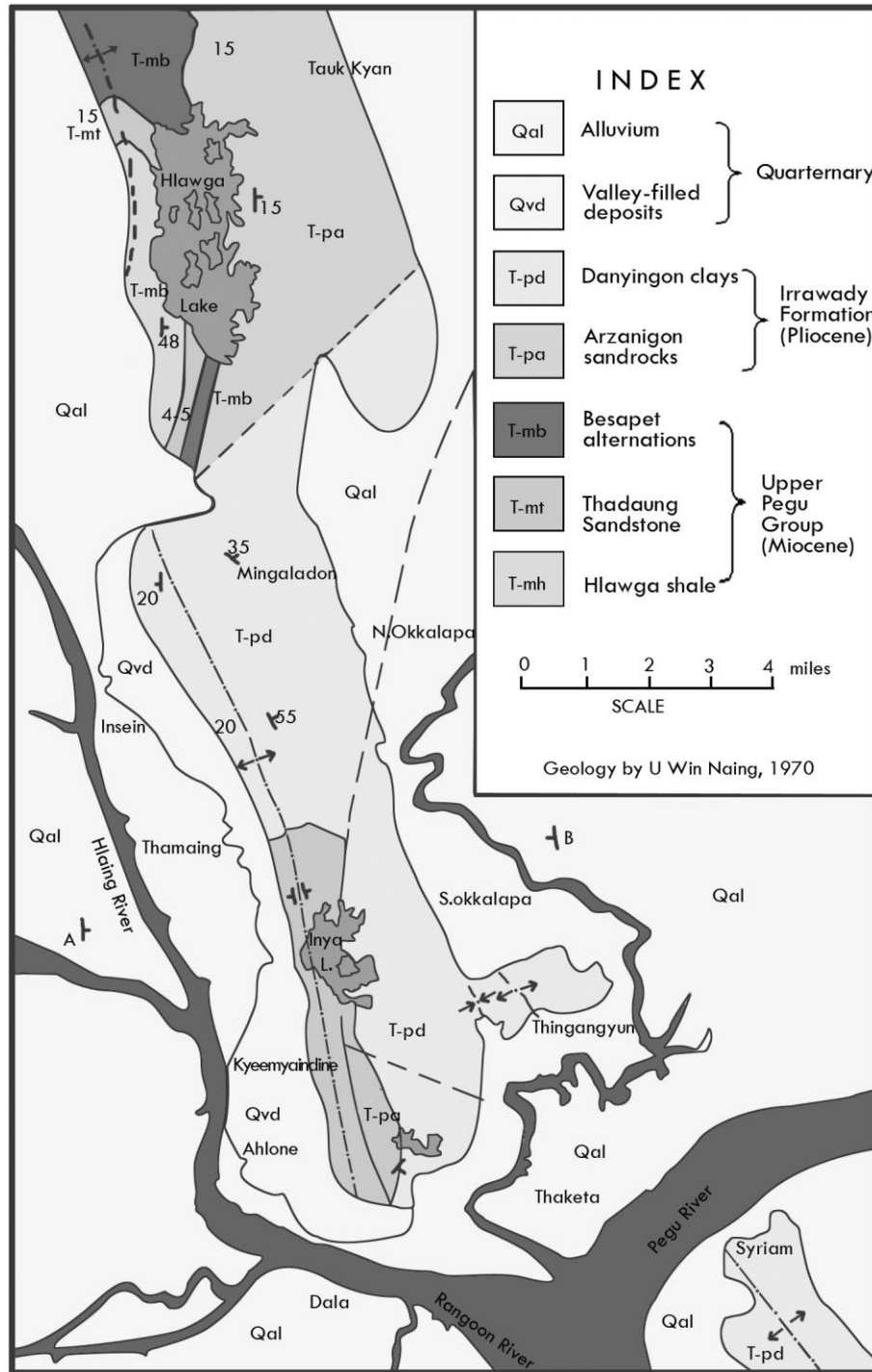


Figure 5-6 Geological Map of Yangon Region

5.3.3. 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).

5.3.4. Soil

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

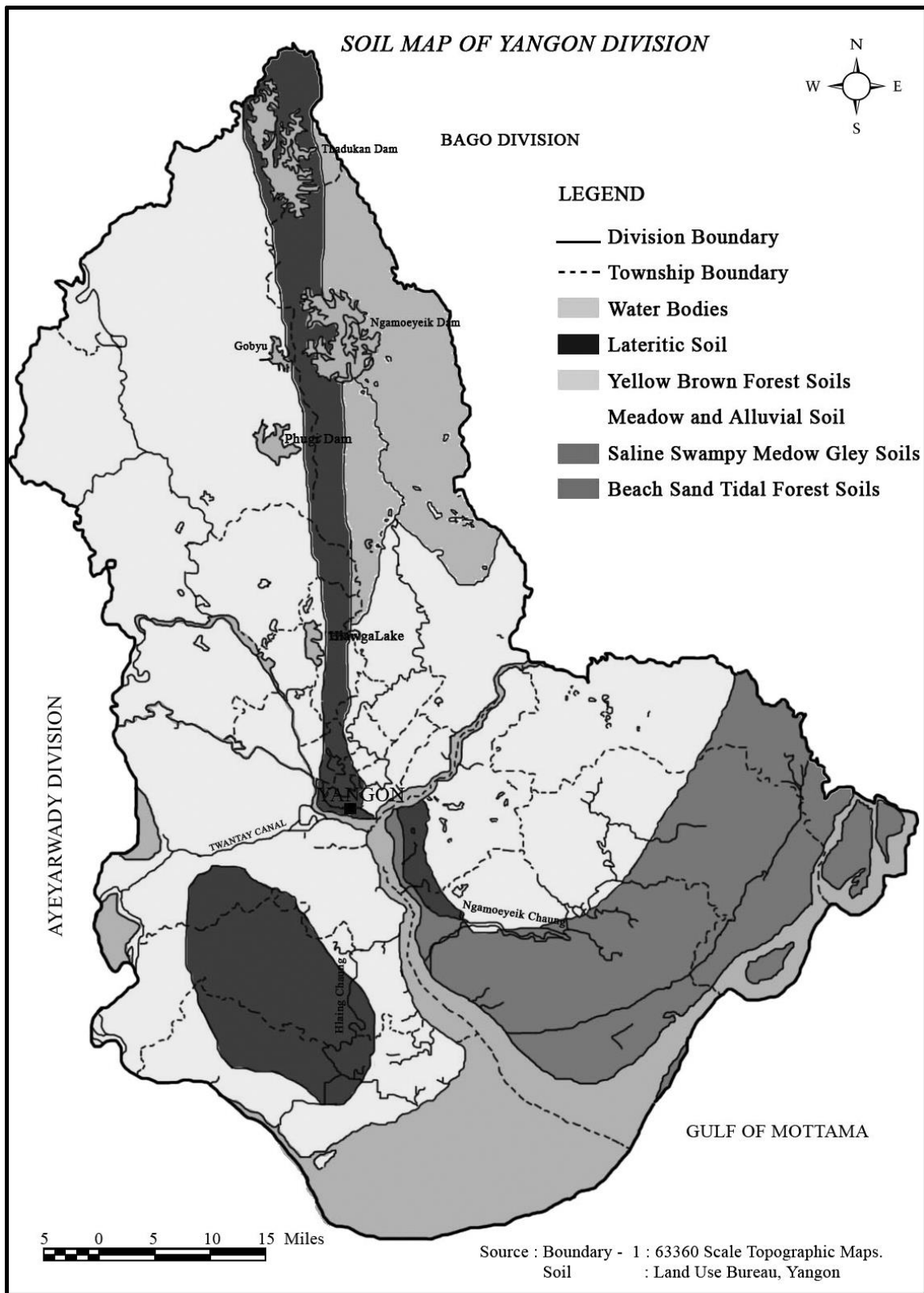


Figure 5-7 Soil map of Yangon (Source: Land use of Bureau of Yangon)

5.3.5. 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 MSL4.

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 Hlaing River which flows North to South. The Yangon River (also known as the Rangoon River or 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. ^[2]

5.3.6. Climate and Meteorology

5.3.6.1. Average Weather in Yangon

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

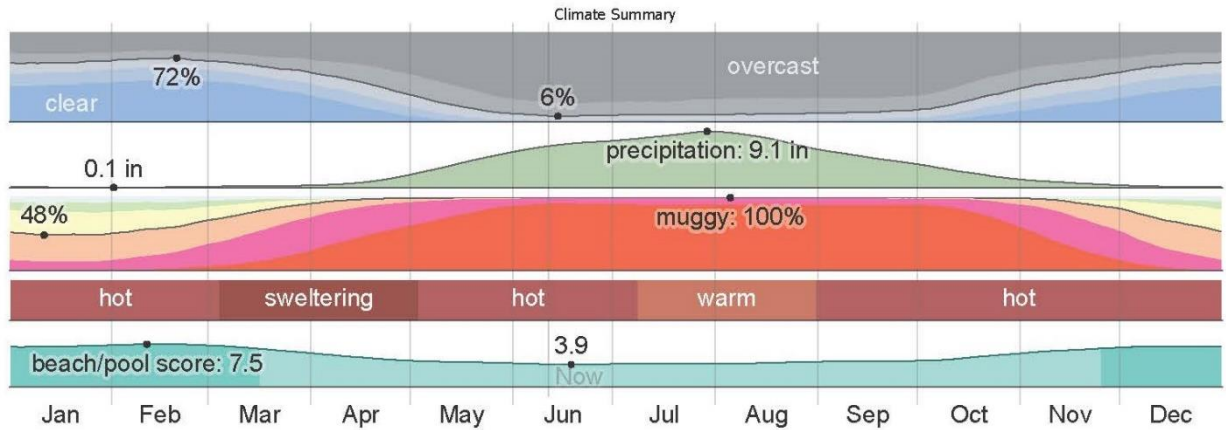


Figure 5-8 Climate Summary of Yangon Region

5.3.6.2. 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. [6]

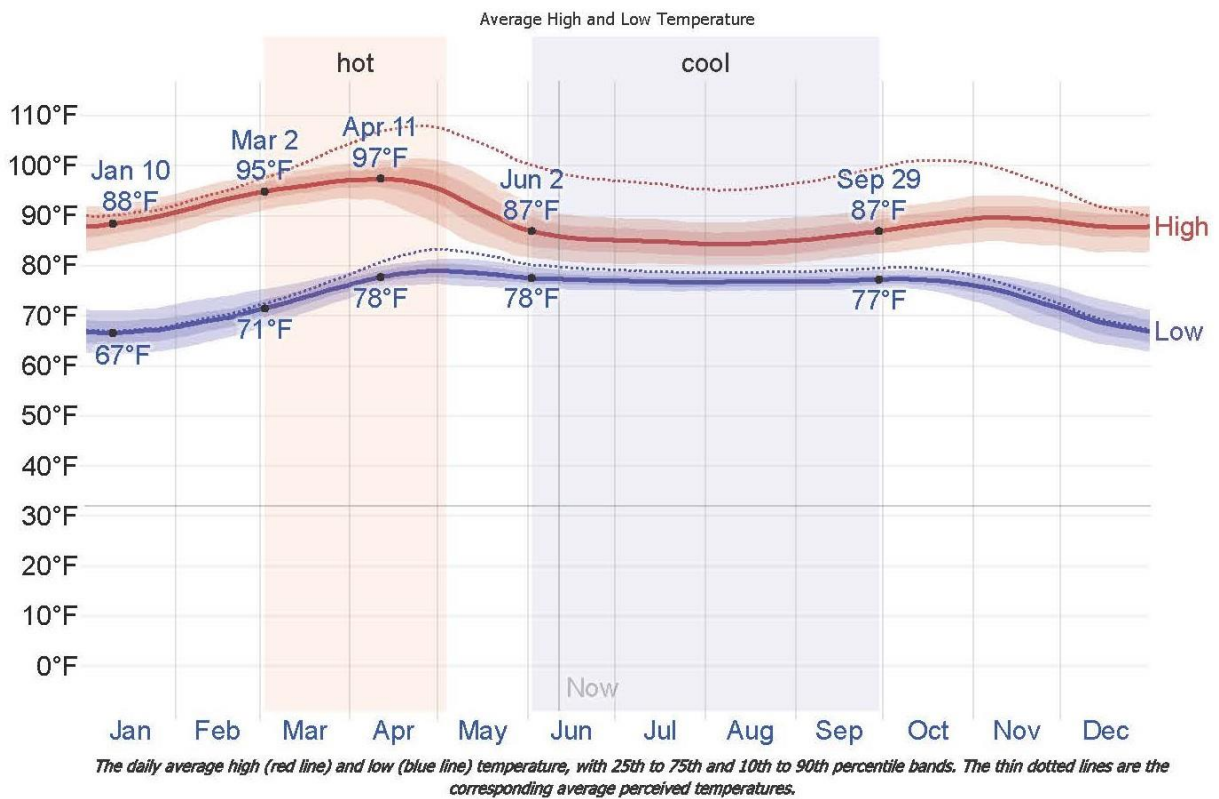


Figure 5-9 Average Temperature of Yangon Region

5.3.6.3. 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. [6]

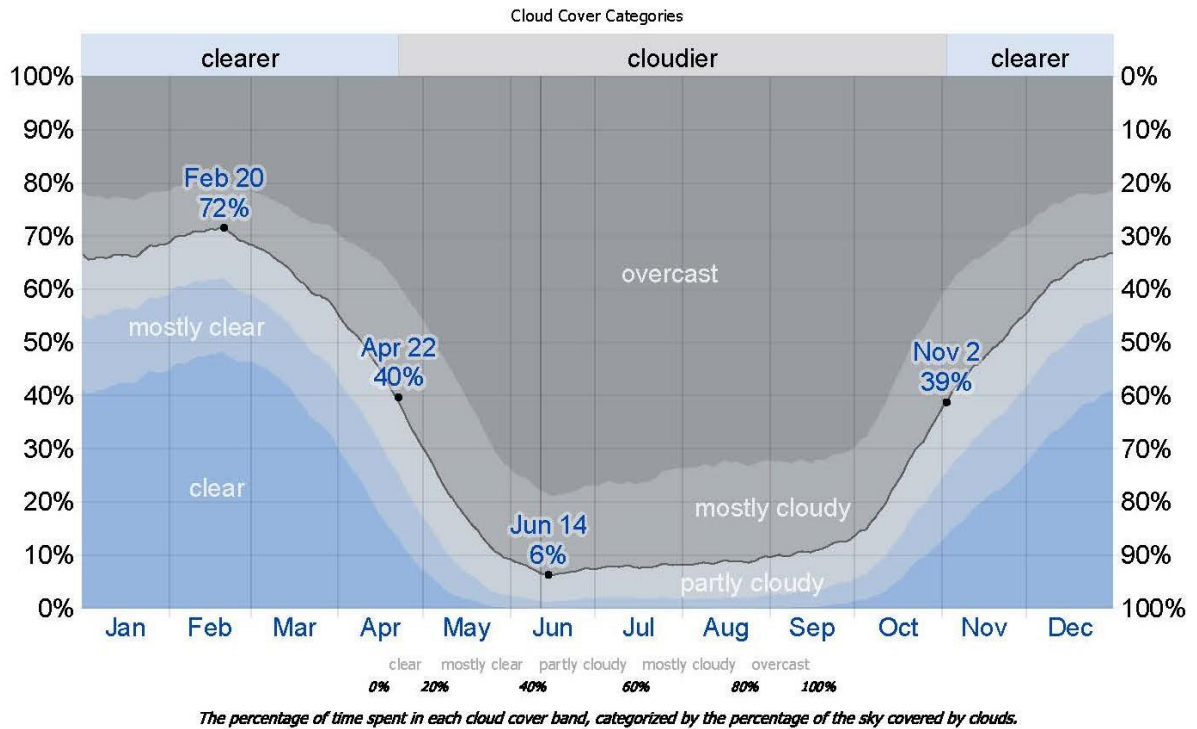


Figure 5-10 Cloud Cover Categories

5.3.6.4. 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. [6]

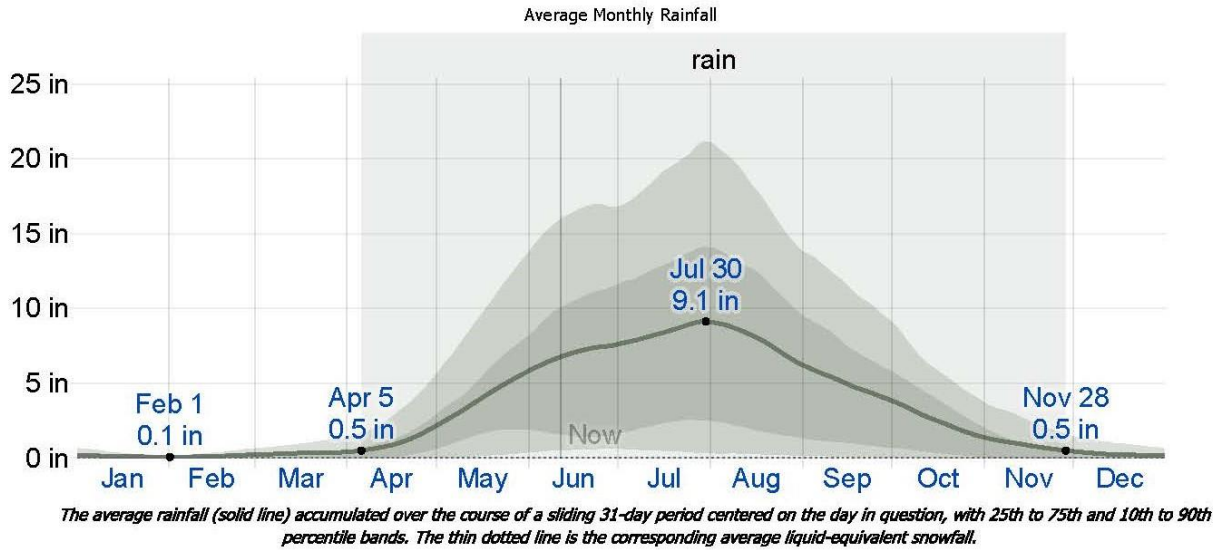


Figure 5-11 Average Monthly Rainfall at Yangon Region

Table 5-6 Annual Rainfall and Temperature

Year	Rainfall		Temperature	
	Raining day	Rainfall value	Summer season Max (°C)	Winter season Min (°C)
2016	126	104	38	15.7
2017	117	101.93	39	15.5
2018	81	79.03	39	15.5
2019	135	132.85	38	15.8

Source: Department of Administrative Thanlyin Kyauktan Township, Regional Data (www.gad.gov.mm)

5.3.6.5. 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. In May 11, 2020, the weather condition of proposed project is 35.3 °C average temperature and 38.9 % average humidity. ^[6]

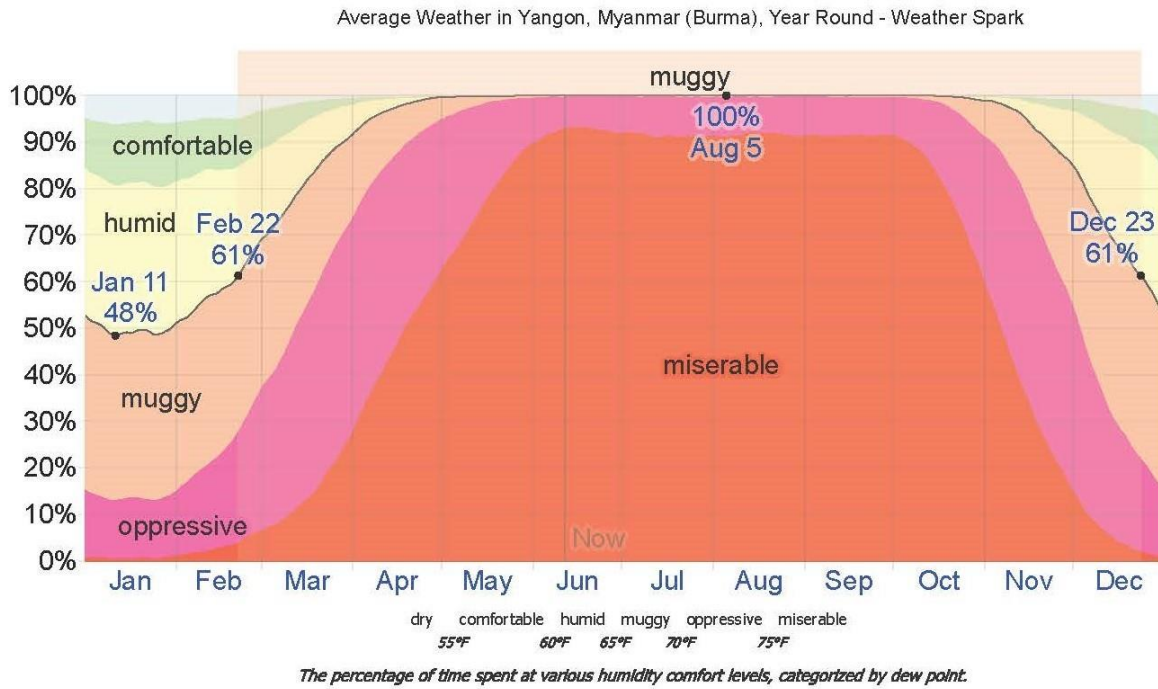


Figure 5-12 Humidity of Yangon

5.3.6.6. 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. [6]

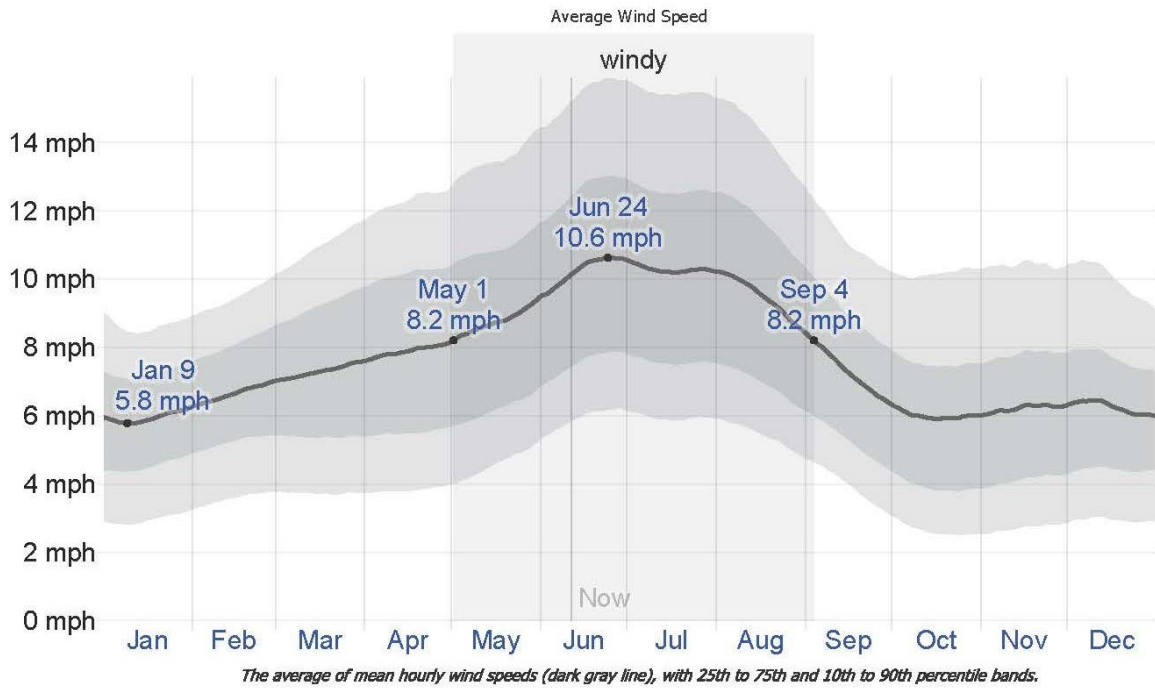


Figure 5-13 Average Wind Speed in Yangon

5.4. BIOLOGICAL COMPONENT

The proposed project site is not located in or near a sensitive ecosystem as the proposed project area is situated in the Thilawa industrial zone. The Project Site is a built-environment and the species of flora surveyed at the site are native species uncommon to the Yangon area. There were no protected species or species of conservation value identified. The nearest water body is the Yangon River.

5.5. SOCIO-ECONOMIC COMPONENT

5.5.1. Population

Fineline Company Limited is located across Thalyin Kyauktan Township in Yangon Region. In 2020, there are about people 171,638 in Township as shown in Table 5-7.

Table 5-7 Population of Males and Females at Thalyin Kyauktan Township (2020)

Item	Older 18 year			Younger 18 year			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Urban	15,621	17,149	32,770	6,318	6,077	12,395	21,939	23,226	45,165
Rural	41,225	43,210	84,435	21,251	20,787	42,038	62,476	63,997	126,473
Total	56,846	60,359	117,205	27,569	26,864	54,433	84,415	87,223	171,638

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

5.5.2. Religion

The different kinds of religion present in Thalyin Kyauktan Townships are as shown in Table 4-7. More than 95% of the people living in the township are Buddhists.

Table 5-8 Religion in Thalyin Kyauktan Township (2020)

Township	Buddhist	Christian	Hindu	Muslim	Other	Total
Kyauktan	156,876	1,208	3,199	594	-	161,877
Tadar	9,684	12	65			9,761
Total	166,560	1,220	3,264	594		171,638

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

5.5.3. Local Economy

Among regional towns, Thalyin Kyauktan Township has a variety of businesses and services operating in the community with other businesses/services, based in the region. Most of the sources of livelihood in the Township are 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

5.5.4. Public Infrastructure and Access

5.5.4.1. Communication and Transportation

Major transportation route in Thalyin Kyauktan Township are port and car road as presented in in Table 5-9.

Table 5-9 Transportation route

Categories	Transportation Route+		Miles
	From	to	
Inland Waterway (Phar Kuu)	Phar Kuu	Tha Yat Pin Chaung	2 miles, 3 furlongs
Inland Waterway (Tha Pyay Kone)	Tha Pyay kone	Yangon	24miles
Inland Waterway (Day Set)	Day Set	Tha Yat Pin Chaung	3 furlongs
Inland Waterway (Khayan Chaung)	Khayan Spillway	Bagan Taung- Tha PyayKone	6 furlongs

Railway (East Yangon University)	Aung Thuka	East Yangon University	4miles 2 furlongs
Railway (Yangon Thilawa)	Aung Thuka	Thilawa	13miles 4 furlongs
Highway (Thahtay Kwin-Bagan Taung-PharKuu-Maung Ma Rd)	Thahtay Kwin Village	Maung Ma Village	18miles 4farlons
Highway (Bago-ThaNatPin-KhaYanThoneKhwa-Thalyin Rd)	Thanlyin	Pearl Village	13miles
Highway (Thalyin-Thilawa-Satekan Rd)	Sate Kyi Lan Sone	Dagon-Thilawa	3miles
Road (Thalyin-Kyouttan Rd)	Phayar Kone	Thilawa	6miles
Road (Bago-Thanatpin-KhayanthoneKwa-Thalyin Rd)			4miles
Road (Thalyin-Thilawa-Padakyi Rd)			13miles
Road (Thalyin-Thilawa-Middle Padakyi Rd)			3miles
Bus (Tawa) 31, Kone Baung, Yangon Nyein Chan Gabar-3 KAPAYA			4miles 4farlons
Bus (70, Shwe Taung Pine)	East yangon University	Bo Tahtaung	
Bus (32, Kone Baung, Yangon Shwe Taung Pine)	GTU	Bo Tahtaung	
Bus (76,104)	MMU - Aung Mingalar-3lansone	Kha Yae Pin Yate Mon	
Bridge (Thalyin-Yangon)	East Yangon University - YanKin 12 lone Tan	Sat Mhu 1	
Bridge (Dagon-Kalawae)			7056ft
Bridge (Vault Chaung)			4540ft
Bridge (Vault Chaung)			195ft
Bridge (Minga Loon Ywar Awin)			120ft
Bridge (Bagan Taung)			104ft
Bridge (Kalar Ma)			148ft
Bridge (Minga Loon Ywar Apyin)			60ft
Bridge (Bago-Thanatpin-Khayanthoekwa-2/67)			52ft
Bridge (Thalyin-Thilawa harbour 1/4)			50ft
Bridge (Dagon Bridge connected to Thilawa Industrial Zone 1/1)			60ft
Bridge (Thalyin-Thilawa-Lower Pada 2/1)			60ft
			60ft
			60ft

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

5.5.4.2. 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) and university, in

the Thalyin Kyauktan Township. The name and the located village tract/ ward of schools are described Table 5-10.

Table 5-10 List of major school in Thalyin Kyauktan Township

No.	Name of School	Location
1	East Yangon University	Pharyar Kone Village
2	Maritime University	Pharyar Kone Village
3	Technological University	Lat Yat Sam Village
4	ThaMa University	Nyaung Thone Pin Village
5	BEHS-1	Oke Pho Su
6	BEHS-2	East Myo Thit
7	BEHS-3	Htan Pin Kone
8	BEHS-4	Bago Su
9	BEHS(Kyout yae Twin)	Pharyar Kone
10	BEHS (Phar Kuu)	East Phar Kuu
11	BEHS(Tha Pyay Kone)	Tha Pyay Kone
12	BEHS(Myo Haung)	Middle Myo Haung
13	BEHS(Pyin Htaung School)	Lat Yat Sam Village
14	BEHS(Branch) (Yone Tha Pyay Kan)	Yone Tha Pyay Kan Village
15	BEHS(Branch)(Jamar)	Kyoung Kong Sate Kyi Village
16	BEHS(Branch)(Chaung Saut)	Chaung Saut Village
17	BEHS(Branch)(Kyoung Kong Sate kyi)	Kyoung Kong Sate Kyi Village
18	BEHS(Branch)(Mya yar Yoe)	Lat Yat Sam Village
19	BEMS(Lahar Yak)	Lahar Yark Village
20	BEMS(Kon Chan Kone)	Phayar Kone Village
21	BEMS(Vault Tha Pyay Kan)-1	Vault Tha Pyay Kan Village
22	BEMS(Kalar Wae)	Kala Wae Village
23	BEMS(Branch)(Kayin Sate)	Kayin Sate Village
24	BEMS(Branch)(Sit Pingun)	Sit Pingun Village
25	BEMS(Branch)(Htaw Wat)	Htaw Wat Village
26	BEMS(Branch)(Bogyoke Ywarthit)	Bogyoke Ywarthit Village
27	BEMS(Branch)(Nyaung Thone Pin)	A Mhu Htan
28	BEPS(57 nos)	Thalyin
29	Pre-School	Thalyin
30	Monestary Education Centre(14nos)	Thalyin

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

5.5.4.3. Health Status

The diseases of high prevalence reported in 2013 are Tuberculosis (TB), followed by Acute Respiratory Infection (ARI), Diarrhea, TB and snakebites. With reference to the Township Health

Profile 2014 of Thalyin Kyauktan Township, no accidental work injuries reported to the township hospital in 2013 as shown in Table 4-11. The common diseases are as shown in Table 4-10.

Table 5-11 Common Diseases in Thalyin Kyauktan Township

Disease	Thanlyin Township	
	Morbidity	Mortality
Malaria (Per 100000P)	1	-
ARI(Per 100000<5Children)	-	-
Dysentery	1	-
Diarrhea (Per 100000P)	603	-
TB (Sputum+)(Per 10000P)	959	-
HIV/AIDS (2015-2016)	308	5
(2016-2017)	130	12

Table 5-12 Lists of hospital in Thalyin Kyauktan Township

Hospital	Beds/Services	Responsible
Thanlyin General Hospital	200	Government
District Hospital	16	Government
Chan Myay Myittar Hospital	16	Private
Total	232	3

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

5.6. CULTURAL AND VISUAL COMPONENTS

Thalyin Kyauktan 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.

CHAPTER 6 IMPACT ASSESSMENT AND MITIGATION MEASURE

6.1. METHODOLOGY FOR THE ASSESSMENTS

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

The following methodology have been applied to assess the environmental impacts of the factory mainly on air, water, land, biodiversity, including human beings. Each source of impact had assessed by four parameters, magnitude, duration, extent and probability and each assess point have five scales as mentioned in Table 6-1:

Table 6-1 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 is able to categorize as follows:

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

6.2. IMPACT IDENTIFICATIONS

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. In this IEE study, 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.

6.2.1. 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 Livestock Production Zone, Thanlyin-Kyauktan Township, Yangon Region, there may have business opportunities to local people. Local people can have a market by selling foods, snacks and drinks nearby the factory.

6.2.2. Negative Impact

The following Figure 6-1 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.

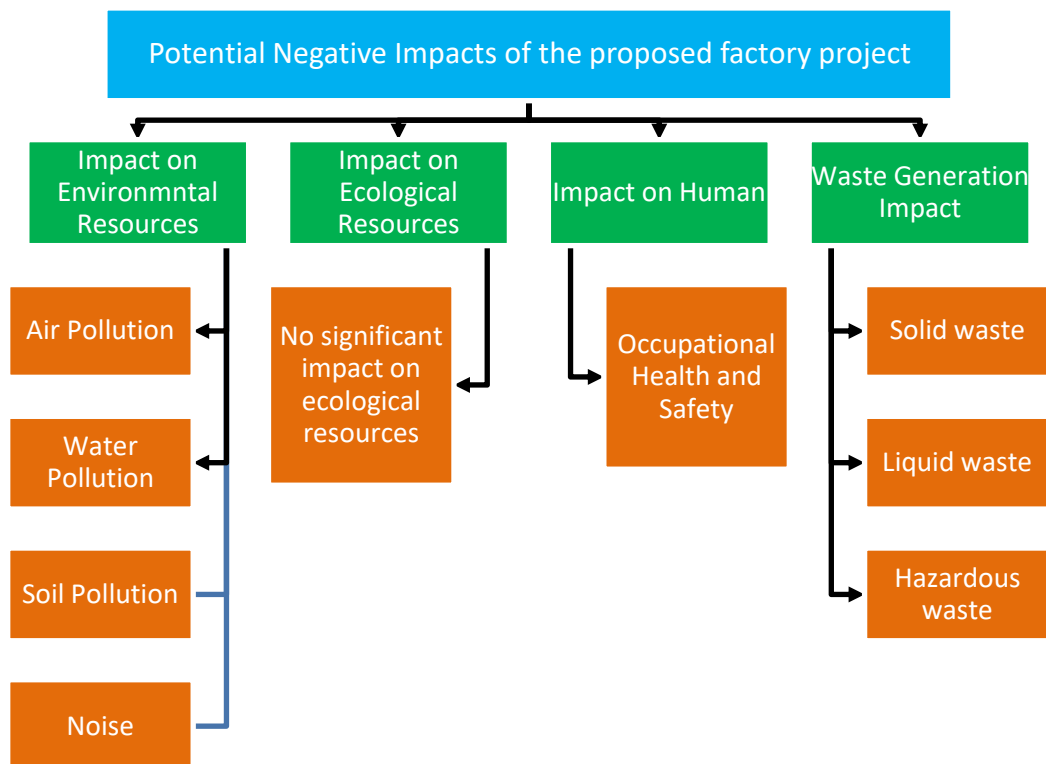


Figure 6-1 Potential negative impact affect from proposed factory project

6.3. POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION AND DECOMMISSIONING PHASE

Construction phase: The project factory is already constructed during environmental assessments 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 30 years. The term of the Lease shall be initial 30 years commencing from the date of signing of the Lease Agreement between Local owner and FINELINE COMPANY LIMITED for proposed project site for 2.388 acres of land extendable for ten years in 2 times. The project of land and building will be restitution to land owner after close the operation. Therefore, the assessment study cannot be need for environmental impact assessment during decommission phase.

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

6.4. POTENTIAL ENVIRONMENTAL IMPACTS DURING OPERATION PHASE

Significant impacts were determined through the following issues:

- i. Views of interested and affected local person;
- ii. Legislation
- iii. Professional adjustment of the project team includes of consultant, associate consultant, international environmental impact assessment methodology

Impacts on the environment from various activities of the project can be categorized as follows;

- I. Impact on Environmental Resource
 - Impact on Air Quality
 - Impact of Noise Level
 - Impact on Water Quality
 - Impact on Soil Quality
- II. Impact on Ecological Resources
 - Aquatic Ecosystem
- III. Impact on Human Environment
 - Health and Safety
 - Socio-economics
- IV. Impact of Waste Disposal
 - Solid waste disposal
 - Liquid waste disposal

6.5. PROJECT ACTIVITIES AND ITS SIGNIFICANT IMPACTS

The project activities, their impacts and significance of impact are provided in following Table.

Table 6-2 Evaluation and Perdition of Significant Impacts and mitigation measure for Operation Phase

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Impact on Environmental Resource									
Air	<ul style="list-style-type: none"> Dust and GHGs emission from vehicles used for transporting raw materials and final products Emission from emergency diesel generator and vehicle movement 	3	4	2	4	36	Moderate	<ul style="list-style-type: none"> Air pollution in atmosphere. Inhaling them can increase the chance you'll have health problems People with heart or lung disease, older adults and children are at greater risk from air pollution. 	<ul style="list-style-type: none"> To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. Ensuring vehicles, compressor and generator are well maintained. Smoke emission should be fitted with the bag filter.
Soil	<ul style="list-style-type: none"> Engine oil leaks, spills at diesel storage and during fuel refueling. 	1	4	1	1	6	Insignificant	<ul style="list-style-type: none"> The factory compound area was paved with concrete and hence, contamination due to the oil spillage at this area is insignificant. 	<ul style="list-style-type: none"> No Mitigation Measure
Noise and Vibration	<ul style="list-style-type: none"> Generating noise from the production machinery 	2	4	2	2	16	Low	<ul style="list-style-type: none"> The factory not operate heavy machinery the major noise source of CMP basic operation activities 	<ul style="list-style-type: none"> No Mitigation Measure

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
								such as cutting, stitching/finishing and packaging by respective machines. <ul style="list-style-type: none"> • There is insignificant impact on surrounding environment. 	
Impact on Ecological Resources									
Flora and fauna on terrestrial and aquatic life	Operation of the bags factory	1	4	1	1	6	Insignificant	<ul style="list-style-type: none"> • Not Significant Impact on Ecological Resources 	<ul style="list-style-type: none"> • No Mitigation Measure
Impact on Human									
Fire	<ul style="list-style-type: none"> • Poor electrical installations • Waste disposed area raw materials and chemical storage 	3	5	2	4	40	Moderate	<ul style="list-style-type: none"> • Serious damage to property and even injury and death 	<ul style="list-style-type: none"> • To provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. • Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening. • The emergency fire alarms are installed at the factory for alerting the workers in case of fire. • The main entrances and route for emergency cases of the factory must not be blocked with materials

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
								or machines for fire emergency cases.	
Occupational Safety	<ul style="list-style-type: none"> Accidental cases cause by operating machines. Unloading, mixing, cutting, pressing and packaging activities. Accidental cases of thermic fluid heater 	3	4	1	4	32	Moderate	<ul style="list-style-type: none"> Accident in workplace (physical injuries or even death) can occur during operation. 	<ul style="list-style-type: none"> First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.
Health	<ul style="list-style-type: none"> Influx of people Noise from the generating of the emergency generators 	2	4	1	2	14	Very Low	<ul style="list-style-type: none"> Change in demographic structure, new diseases form immigrant workers To cause a range of health problems ranging from stress, 	<ul style="list-style-type: none"> 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

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
								poor concentration, productivity losses in the workplace, and communication difficulties and fatigue from lack of sleep, to more serious issues	muffs/ear plugs to the workers working in high noise areas.
Waste Generation Impact									
Solid Waste	<ul style="list-style-type: none"> Residual pieces of fabric scraps from the production lines Waste from packaging materials Waste from kitchen, dormitory and office. 	3	4	1	4	32	Moderate	<ul style="list-style-type: none"> Surrounding environmental pollution and soil contamination 	<ul style="list-style-type: none"> Provides separate garbage bins at each building. All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area Final wastes should be disposed by using YCDC's service.
Liquid Waste	<ul style="list-style-type: none"> Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory. 	2	4	2	2	16	Low	<ul style="list-style-type: none"> Contamination of soil, surface water, ground water 	<ul style="list-style-type: none"> Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous Waste	<ul style="list-style-type: none"> Used oil and lubricant discharged from the maintenance of vehicles and machines. 	2	4	1	2	14	Very Low	<ul style="list-style-type: none"> Reduce the risk of contamination from fuels, oils and hazardous wastes Response effectively to incident and 	<ul style="list-style-type: none"> Proper inspection and maintenance in storage of hazardous waste. Dispose of hazardous chemicals and containers in accordance with occupational health, safety and

Categories	Source of Impact	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
								accident	environmental requirements. <ul style="list-style-type: none"> • 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)

6.6. IMPACTS, MITIGATION MEASURE DURING OPERATION

Impact assessment on environmental, social and economic aspect is based on analysis of the magnitudes of potential impact and significant potential impacts on the project activities. The assessment on both of positive and negative impacts was carried out in all phases. Evaluation of significant of impact considered from influences of magnitude, duration, extend and probability of each impact.

6.7. IMPACT ON ENVIRONMENTAL RESOURCE

In FINELINE COMPANY LIMITED will be used the semi-automatic process control system. In which assigned person from the operation line will operate each processing step. The major sources of air emission in the FINELINE COMPANY LIMITED will be defined as below. The project factory is already constructed during environmental assessment study and site visit. During construction phase, dust emission was addressed as potential environmental impact and is expected to be non-significant because the construction phase is a short-term affect. So, we are not assessed potential environmental impact during construction phase.

During the operation phase, there is no emission of smoke from the process of production. Particulate matters are generated during cutting and sawing the raw materials. But that particles amount is low. Dust particles, NO₂ and SO₂ would be emitted from the activities of loading, unloading and transportation of the raw materials and final product. Various activities as cooking from kitchen, using air conditioners in office building, storage of raw materials, vehicles movements, operating diesel generators would also be a factor slightly affecting to air quality.

Air impact source of emergency used of generator and vehicle movements and transportation of raw materials may also generate particulate matters and gas particle. However, these anticipated impacts are in manageable limits to control the air pollution with relevant mitigation measures and the proposed factory will be managed by using their HSE guidelines.

The United States Environmental Protection Agency (EPA) has developed an Air Quality Index that is used to report air quality. This AQI is divided into six categories indicating increasing levels of health concern. An AQI value over 300 represents hazardous air quality and below 50 the air quality is good.

AQI Values	Level of Health Concern	Colour
0 to 50	Good	Green
51 to 100	Moderate	Yellow
101 to 150	Unhealthy for sensitive group	Orange
151 to 200	Unhealthy	Red
2001 to 300	Very Unhealthy	Purple
301 to 500	Hazardous	Maroon

6.7.1.1. Computing the AQI

The air quality index is a piecewise linear function of the pollutant concentration. At the boundary between AQI categories, there is a discontinuous jump of one AQI unit. To convert from concentration to AQI this equation is used;

$$I = \frac{I_{high} - I_{low}}{C_{high} - C_{low}}(C - C_{low}) + I_{low}$$

Where;

- I = the (Air Quality) Index
- C = the pollutant concentration
- C_{high} = the concentration breakpoint that is ≥ C
- C_{low} = the concentration breakpoint that is ≤ C
- I_{high} = the Index breakpoint corresponding to C_{high}
- I_{low} = the index breakpoint corresponding to C_{low}

Items	O3	PM 2.5	PM 10	CO	SO2	NO2	AQI value	Level of health concern
	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	C _{low} - C _{high} (Avg)	
Monitoring Value	3-36	7-83	11-88	0.2-0.8	1.04-5	8-32	0-50	
Monitoring result	2.5	9.78	9.65	9.13	43.3	7.64	2.5-43.3	Good

6.7.2. Energy Consumption and Related CO₂ (GNG) emission

Though main electricity source for the factory is the national grid line, sound-proof diesel generators will be set-up in case of electricity shortages. So, the standby generators will be used for both operation and administration appliances. The proposed project will use 40 gallons per month of diesel for vehicles such as transportation vehicle and emergency use of a generator. The following table shows the amount of CO₂ emission coming from the combustion of fuels.

Burning diesel or other fuels creates exhaust gasses. Diesel generators produce carbon dioxide (CO₂), nitrogen oxide (NO_x), and particulate matter. These generators release this into the atmosphere and substantially reduce air quality in the nearby regions. Every liter of fuel has 0.73 kg of pure carbon, 2.6 kg of carbon dioxide released per liter of diesel fuel.

Table 6-3 Category of GHGs Assessment

Category	Range
Negligible	no GHG assessment necessary
Low	< 20 kt/y CO ₂ -equivalent per year
Medium-Low	20 – 100 kt CO ₂ - equivalent per year
Medium-High	100 kt – 1 Mt CO ₂ - equivalent per year
High	>1 Mt CO ₂ -e equivalent per year

Source: EBRD GHG Assessment Methodology, 2010

Table 6-4 CO₂ Emission by the Uses of Fuel

No.	Type	Amount (Liter/year)	Equivalent CO ₂ emission (Kilotons)	Status
1	Diesel for generator	9084.988	0.0091	Negligible

According to above conversion, the emission of CO₂ relative to the fuel consumed by the proposed project will not harmfully effect to the environment. However, the proposed bags will use a lot of electrical energy mainly for lighting, running of equipment, running of pumping systems for pumping water into the storage tank. Since electricity generation involves utilization of natural resources, excessive electricity consumption will strain the resource and negatively impact on their sustainability.

6.7.3. Mitigation Measures for Air Quality Impact

The significant sources of gas emission from emergency generator and transportation vehicles will be mitigated by using maintaining system in the operation process.

- Switch off vehicles when not in operation to reduce emissions by drivers
- Adequate stack must be provided as per Industrial guidelines for the proper dispersion of potential pollutants

Moreover, FINELINE COMPANY LIMITED bags factory has also implemented canteen facilities, kitchen ventilation system has already installed and operated in order to remove smoke, heat, odors, and steam from cooking.

6.7.4. Impact of Noise

The Occupational Safety and Health Administration (OSHA) have recommended permissible noise exposure limit for industrial workers, which is based on 90 dB (A) for 8 hours exposure a day with 5dB trading rates. The maximum allowable noise level for workers is 90 dB (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, need to provide if actual noise level monitoring results are more than 90 dB (A) at the work site for working time hours for 8 hours.

Table 6-5 Permissible exposure of noise limits

Total Time of Exposure Per Day in Hours	Noise Level dB(A)
8	90
6	92
4	95
3	97

Total Time of Exposure Per Day in Hours	Noise Level dB(A)
5	100
1	105
½	110
¼	115

6.7.5. Impact on Water Quality

6.7.5.1. Water Consumption

In the operation phase of bags manufacturing factory, there is no water use for processing purpose. Tube well is the main source of raw water will be treated by passing through into (i) the oxidation tower to remove oxidized materials, (ii) chlorine dosing system, (iii) de-iron filter, (iv) carbon filter and (v) cartridge filter. Then the obtained treated water will be provided for the whole factory use of general office facilities such as canteen, toilets and other general use. Estimated maximum water consumption for the whole factory is 12328 gallons per day.

6.7.5.2. Water Pollution

During the operational phase, there will be **no significant impact** on soil quality due to manufacturing of knitted wear because concrete road facilities have been implemented at the whole project site area. However, there may be effect on soil if wastes from the operation period are disposed improperly.

6.7.6. Mitigation Measures for Water Consumption and Contamination

6.7.6.1. Water Consumption

In operation phase, according to the estimated water consumption for the whole factory is 20 gallons per day for the purpose of general office uses and laundry section. So, the appropriate water conservation plan should be implemented with commensurate with the magnitude and cost of water use. These programs should promote the continuous reduction in water consumption and achieve savings in the water pumping, treatment and disposal costs.

- Regularly maintain plumbing, and identify and repair leaks
- Shut off water to unused areas
- Install self-closing taps, automatic shut-off valves, spray nozzles, pressures reducing valves and water conserving fixtures (e.g low flow shower heads, faucets, toilets, urinals and spring loader)
- Operate dishwashers and laundries on full loads, and only when needed
- Install water-saving equipment in lavatories, such as low flow toilet
- Recycling water used from wastewater treatment system

Currently toilet facilities have hygienic toilets already provided and categorized by gender, marked distinctly for men and women by signs and symbols. In addition, toilet areas will also be provided with water sinks, necessary toiletries, and hand washing soaps, hand drying facilities, and waste bins.

Categories	Area of location	Sex	Quantities
Workers and staff	Production area and office	Male	16
		Female	16

- ❖ Ensure that liquid waste from the proposed site is directed to the appropriate drains
- ❖ Maintain the equipment, pipelines in good working conditions and drainage system to avoid clogging



Figure 6-2 Toilet Facilities at FINELINE COMPANY LIMITED

6.7.7. Impact on Soil Quality

During the operational phase, there is **no significant impact** on soil quality due to bags manufacturing activities because concrete road facilities have been implemented at the whole project site area. However, there may be effect on soil if wastes from the operation period are disposed improperly.

6.8. IMPACT ON ECOLOGICAL RESOURCE

The proposed project is located in the industrial zone. Therefore, there is no wildlife, forests, protected area, coastal resource or mangrove area and rare and endangered species are found around the project area. The nearest water body is Yangon River which is running south to north and later join into the Bago River in the east.

6.9. IMPACT ON HUMAN

6.9.1. Socio-economic Benefit

The proposed project is the long-term investment in the industrial sector. Most of the impacts of the proposed project on socio-economic environment may be positive. Implementation of proposed project may create temporary employment during construction and decommissioning phases and permanent jobs in the operation phase. Subsequently, socio-economic standards of local people will be increased and eventually it may lead to the economic growth at local and regional level.

6.9.2. Occupational Health and Safety

During the operation phase, using the machinery for production process can get injuries. Noise from the generating of the machine and generator may also affect the health of people working in the project area. Fire and explosion hazards are mainly cause from the storage of raw materials and poor management of waste disposal. The usage of fuel must carefully handle because spillage and leakage of oil and grease can cause ignition of fire. Domestic wastewater or grey water produced from canteen, kitchen and toilets will cause enormous breeding of mosquitos, which can lead to diseases like malaria and dengue fever, if not carefully managed.

6.9.3. Mitigation Measures for Occupational Health and Safety

- Consider the provision of personal protective equipment only after all measures for removing or controlling safety hazards have been provided reasonably impractical
- Ensure that sufficient personal protective equipment is provided and that they are readily available for every person who may need to use them.
- The management should ensure that all persons make full and proper use of the personal protective equipment provided
- Provide instruction and training in the proper use and care of any specific protective equipment where necessary
- Ensure that the personal protective equipment is in good condition. Report immediately any damage to the management for replacement. Always keep the personal protective equipment as clean as possible.

Monitoring should be designed and implemented by accredited professionals, as part of an occupational health and safety-monitoring program. Facilities should also maintain a record of occupational accidents and diseases. Projects should try to reduce the number of accidents among project workers (whether directly employed) to a rate of zero, especially accidents that could result in lost work time, different levels of disability, or even fatalities.

6.9.4. Material Storage guidelines

Storage practices to reflect the safety of workers are also developed in FINELINE COMPANY LIMITED. All the shelves in the storage areas are secured, firmly placed and organized to prevent from any collisions that can affect the workers during working. Different materials will be stored separately by type and according to the designed layout.

6.9.5. First Aid Guidelines and Facilities

A well organized and proper first aid system is implanted to provide immediate first aid to anyone who is injured in the workplace and had also conducted the first aid training by Myanmar Red Cross Society. Adequate number of first-aid kits are listed and made available at all workplaces and contacts of medical providers; hospitals will be notified. The followings are some of the contents in a sample first aid kit.

- Bandage
- Adhesive Tape
- Antiseptic wipe
- Burn dressing and treatment items
- Cold pack

- CPR barrier
- Sterile wound dressings
- Sterile eye coverings
- Scissors, tweezers, compress

6.10. IMPACT OF WASTE DISPOSAL

Most activities of the bags manufacturing factory will generate the relatively low level of waste. Solid waste from production sector will consists of process waste such as Industrial waste would be generated from operation such as sewing, cutting and cementing etc. and food waste, plastic, paper, glass, metal can, sanitary napkins, tissue paper, garden waste, etc. However, proposed factory has been implemented the solid waste disposal system by the segregation of waste type such as paper waste, food waste, production waste and hazardous waste according to their environmental health and safety guideline. The required rubbish bins have been provided and regularly checked and monitored by assigned person of proposed factory. Before send to dumping site of Thanlyin Kyauktan Township Development Committee, the proper disposal waste facilities and temporary waste disposal site have been provided in the factory site and they should be followed and monitored the solid waste disposal system with the help of Municipal guidelines. Moreover, for the purpose of hygienic canteen, kitchen facilities and standard septic type of toilets, well-cleaned and well-maintained already provided for the proposed factory site.

6.10.1. Solid Waste

During the construction and decommissioning phase, various kinds of solid wastes will be generated. These wastes will be collected and clean every day to avoid any undesirable working condition and environmental impacts. Based on their types (glass, metal, plastic, wood, cement residues, oil spills and paper based), these solid wastes will be collected separately in rubbish bins.

In the operation phase, major solid wastes of the proposed bags factory may be generated from cutting, sewing and gluing. In addition to factory solid waste, canteen, kitchen and dormitory will produce solid wastes mainly personal remnants, household wastes and food residues.

6.10.2. Liquid Waste

There may be expected no significant liquid waste from the construction and decommissioning phase. The main source of the liquid waste of these two phases may be from the sanitary wastewater.

During the operation phases, sanitary wastewater from the usage of toilet facilities, kitchen and canteens will be discharged as liquid waste. All of the liquid waste will be collected in septic tanks which are attached with proper sewage treatment tanks (as mentioned in factory site plan).

6.10.3. Mitigation Measures for Waste Disposal

At FINELINE COMPANY LIMITED, manufacturing of bags factory, waste categorization has been developed into at least four types of waste that includes iron, compost waste, lubricant waste, recycle waste such as poly propylene Bags (PP) and cardboards etc.

All of production waste such as webbing polyester pieces, carton, cardboard, cotton, plastic string and other non-hazardous waste will be collected by designated garbage bins and then sent to

the temporary storage areas of solid waste in the project site area, which include 4 compartments for different kinds of waste categories. In addition, pest control program has also implemented at the entrance of rodents and insects. FINELINE COMPANY LIMITED also has an agreement services with Thanlyin Kyauktan Township Development Committee for waste disposal facilities to collect the all production waste, office waste and domestic waste. According to the waste management practice, FINELINE COMPANY LIMITED, bags factory has provided the dedicated dustbins for paper waste, plastic waste, production waste and food waste for the proper disposal of waste. Appropriate recycling methods are in practice to dispose of the wastes in the environmentally friendly manner.



Figure 6-3 Solid waste management at FINELINE COMPANY LIMITED

CHAPTER 7 ENVIRONMENTAL MANAGEMENT PLAN

7.1. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

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 cycle repeats, and continuous improvement occurs.

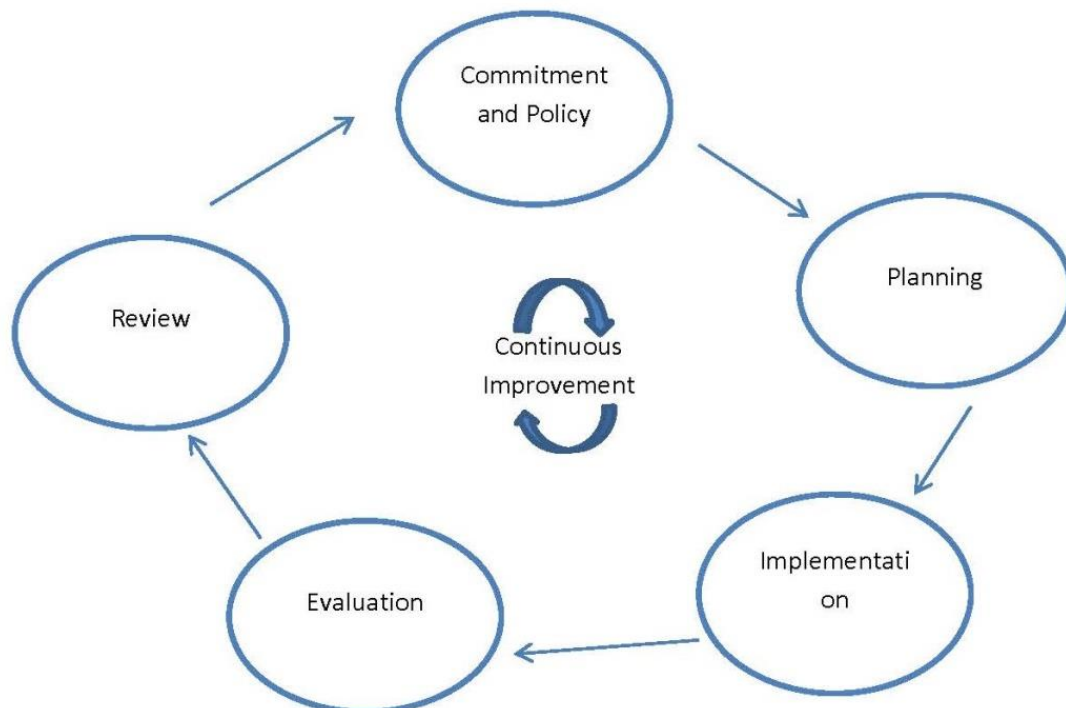


Figure 7-1 Continuous Improvement Circle

- **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.

7.1.1. Institutional Requirement

FINELINE COMPANY LIMITED will be managed 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 Environmental Management Plan (EMP) and Monitoring Plan 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.

7.2. RESPONSIBILITIES OF THE ENVIRONMENTAL MANAGEMENT PLAN

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:

FINELINE 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 FINELINE COMPANY LIMITED for EMP implementation facilities.

Environmental Conversation Department (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.

7.2.1. 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;

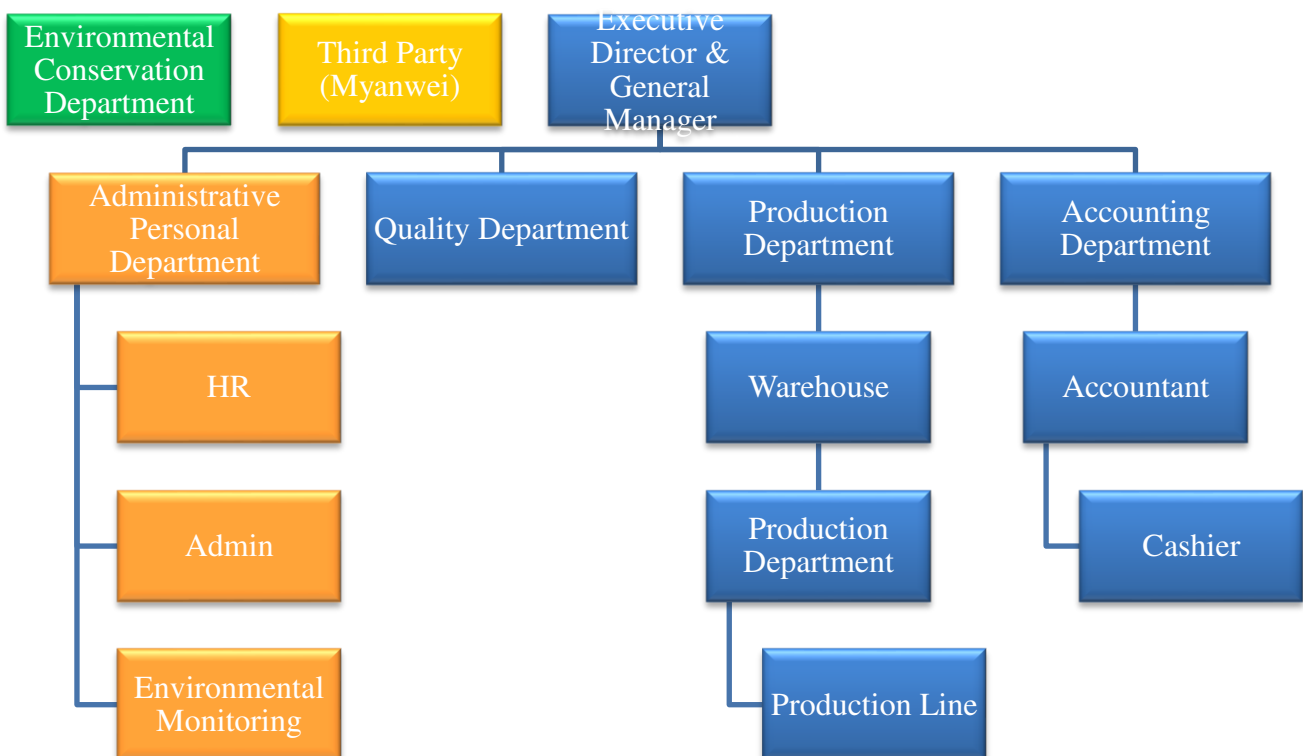


Figure 7-2 Organization Structure of Environmental Management Plan

7.3. 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 7-1 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. Ensuring vehicles, compressor and generator are well maintained.	HSE manager	Regular check	Monthly	Environmental Management Team of FINELINE COMPANY LIMITED
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 FINELINE COMPANY LIMITED
Occupational Safety	Accidental cases cause by operating machines. Unloading, mixing, cutting, pressing and packaging activities. Accidental cases of thermic	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	HSE manager	Regular Check	Monthly	Environmental Management Team of FINELINE COMPANY LIMITED

Categories	Potential Impact	Mitigation and Enhancement		Inspection		
		Measures	Responsible person	Type	Frequency	Supervision team
	fluid heater	lighting for workers for safe working and reducing optical problems of the workers. Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.				
Health	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 FINELINE COMPANY LIMITED
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 FINELINE COMPANY LIMITED
Liquid Waste	Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory.	Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.	HSE Manager Operation Manager	Regular check	Half a Year	Environmental Management Team of FINELINE COMPANY LIMITED

Categories	Potential Impact	Mitigation and Enhancement		Inspection		
		Measures	Responsible person	Type	Frequency	Supervision team
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 (e.g. DOWA and YCDC)</p>	<p>HSE Manager</p> <p>Operation Manager</p>	Restrictions and regular check	Daily	Environmental Management Team of FINELINE COMPANY LIMITED

7.4. 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 7-2 is provided the environmental monitoring schedule for FINELINE 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 7-2 Environmental Monitoring Schedule for FINELINE COMPANY LIMITED

Issues	Parameter	Frequency	Area to be monitored	Responsible Organization
Operation Phase				
Common	Monitoring of mitigation measures (Section 8.3)	Yearly (3 years after operation)	The project	Environmental Management Team's FINELINE COMPANY LIMITED
Air quality	SO ₂ , NO ₂ , PM _{2.5} , PM ₁₀	Biannually monitoring and reporting to ECD (first 3 years after operation)	One point in the factory	Environmental Management Team's FINELINE COMPANY LIMITED
Waste Generation	Solid waste, Liquid waste and Hazardous waste	weekly	Recycle house and waste house and at the factory office	Environmental Management Team's FINELINE COMPANY LIMITED
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	At the factory	Environmental Management Team's FINELINE COMPANY LIMITED
Light intensity	Illuminance	Monthly	At the production line (especially cutting and QC)	Environmental Management Team's FINELINE COMPANY LIMITED
Decommissioning Phase				
Air quality	SO ₂ , NO ₂ , PM _{2.5} , PM ₁₀	One time during this phase	One point in the production area	Land Owner
Noise	Noise level in decibel (dBA)	One time during this phase	One points in demolishing area	Land Owner
Rehabilitation	Recovering and Revegetation		All decommissioning area	Land Owner

7.5. BUDGET PLAN FOR ENVIRONMENTAL MANAGEMENT AND MONITORING

This section describes the budget plans for the environmental management and environmental monitoring by the project proponent. On the other hand, FINELINE COMPANY LIMITED will take necessary environmental mitigation measures and its expenses for the environmental management not only at the construction and operation phases but also at the closing phase in accordance with their responsibility for the studies of recommendation.

The following table shows the expenditures for the implementation of EMP for operation phase annually. Estimation cost for EMP implementation is presented in Table 7-3.

Table 7-3 Cost estimation for EMP implementation

No	Item	Frequency/Times	Cost (MMK)
Mitigation Plan			
1	Maintenance of air ventilation system	Once per year	600,000 per year
2	Grass plantation within the area of factory compound	Once per three months	100,000 per three months
3	Solid waste disposal	12	25,000 per month
4	Purchase of Personal Protective Equipment (PPE)	Once per half a year	150,000 per month
5	Medical Check-up and Health Insurances	Once per year	800,000 per year
Emergency Preparedness			
1	Fire extinguisher	Once per month	220,000 per month
2	Fire alarm system	Once per month	
3	First Aid Kits	Once per month	
Monitoring Plan			
1	Air Quality	2	500,000 per year
2	Water Quality	2	300,000 per year
3	Light level	2	50,000 per year
4	Environmental Monitoring report	1	500,000 lump sum

7.6. CAPACITY BUILDING AND TRAINING PLAN

The emergency preparedness is vital, as quick and correct response is necessary in case of emergency to reduce injuries, harm and other damage. Care should be 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;

7.6.1. 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.

7.6.2. Emergency procedures

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

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

- 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

7.6.3. 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

7.6.4. Fire Prevention and Protection

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

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

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

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

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

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

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

7.6.5. 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.

7.6.6. **Fire Safety and Evacuation Plan**

Fire Evacuation plans should include the following information

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

Fire Safety Plans should include the following information:

1. Procedure for reporting a fire or other emergency
2. Site plans indicating the following
 - The Occupancy assembly point
 - The locations of fire hydrants
 - The normal routes of fire department vehicles access
3. Floor Plans identifying the locations of the following
 - Exits
 - Primary evacuation routes
 - Secondary evacuation routes
 - Accessible egress routes
 - Areas of refuge
 - Exterior area for assisted rescue
 - Manual fire alarm boxes
 - Portable fire extinguishers
 - Occupant-use hose stations
 - Fire alarm annunciators and controls

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

Table 7-4 American National Fire Fighting Association (NFFA) Standards

No.	Parameters	Proposed Capacity	Remark
1	Fire water flow	14 bars	
2	Deluging rate	12.0 liters/m ² /min	
3	Foam rate	10.0 liters/m ² /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

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.

7.6.7. 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)

7.6.8. 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 MSDSs

7.6.9. Health and Safety Training Plan for Worker

Health and Safety Training plan currently used and provided in FINELINE 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 7-5 Training Plan Used in FINELINE COMPANY LIMITED

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

7.7. GRIEVANCE REDRESS MECHANISM (GRM)

People who live near the project affected area or stakeholders can complain about the problems and impacts that they suffer; they can complain through Grievance Committee, which includes the responsible persons of FINELINE COMPANY LIMITED representative from Thilawa Industrial Zone and representative from General Administration Department (Thanlyin-Kyauktan 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 7-3) show steps of Grievance Redress Mechanism of Proposed Factory Project.

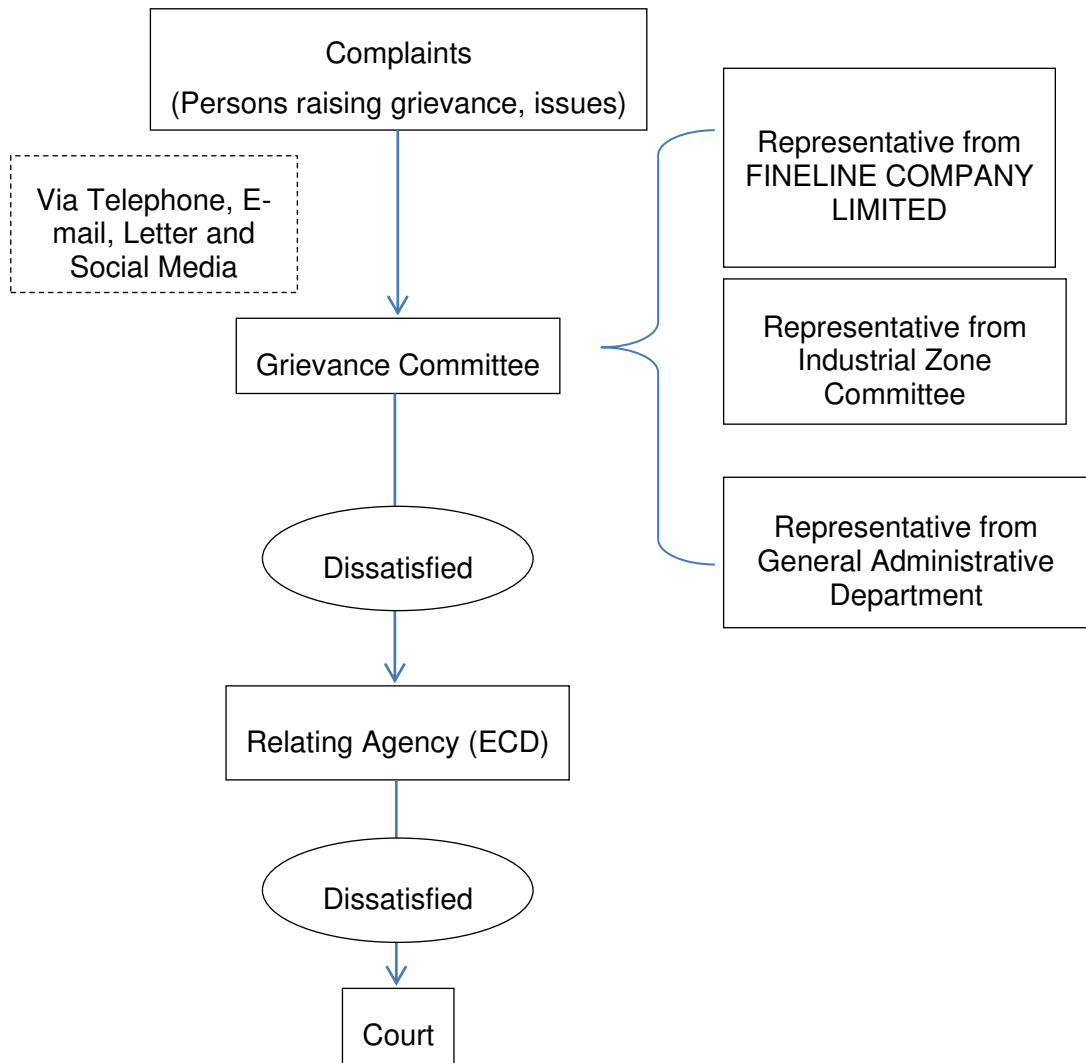


Figure 7-3 Grievance Redress Mechanism flow diagram

7.8. 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 FINELINE 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.

FINELINE 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 (Chinese) training on weekends with experienced teachers and providing necessary healthcare such as medical checkups and giving proper medical knowledge about deceases and its prevention. Part of our CSR activity such as donations will also contribute to public school around our factory (Table 7-6).

Table 7-6 CSR plan at FINELINE COMPANY LIMITED

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

7.8.1. 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.

7.8.2. Non-profit Training

We will contribute 1% of our net profit for the trainings of our Employees. Our trainings include job-related trainings, language trainings and safety trainings. The main objective of our trainings is that we want our manufacturing of bags 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.

7.8.3. Healthcare

One of our main concern 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.

CHAPTER 8 PUBLIC CONSULTATION AND DISCLOSURE

8.1. PUBLIC CONSULTATION PROCESS

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

Public consultation conducted as part of this IEE project has three 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 April, 2020.

During the preparation of this report, the second wave of Covid-19 disease becomes serious in Yangon. The Ministry of Health and Support declared to avoid gathering more than 5 people to avoid close contact and to prevent spreading of disease. Thus, the project condition, the present environmental condition and the management plan are through the social media of Myanwei Environmental Solution Company Limited Facebook page (https://drive.google.com/file/d/17Uc_uSKXtoudMr520GxfScnGR-0NxtEa/view?usp=drivesdk) declared in 9th August, 2022 due to current situation. The suggestion, complain and comments from the public, organization and stakeholder are warmly welcome and accept via mailing, comment, telephoning and messengers.

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

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

ရန်ကုန်တိုင်းဒေသကြီး၊ သန်လျင်ကျောက်တန်းမြို့နယ်၊
မြေတိုင်းရပ်ကွက်အမှတ်-သီလဝါစက်မှုဇုန်၊မြေကွက်
အမှတ်-၁၀၇ တွင် တည်ရှိသော Fineline Company
Limited အတွက် Myanwei Environmental Solutions
Company Limited မှ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း
အစီရင်ခံစာ (IEE Report) အားတာဝန်ယူဆောင်ရွက်လျက်ရှိ
ပါသည်။

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

[#Myanwei_Environmental_Solutions](#)

စီမံကိန်း အကြောင်းအရာ ဖော်ပြချက်-



Figure 8-1 Announcement Post of Proposed Project at Social Media

CHAPTER 9 CONCLUSION AND RECOMMENDATION

9.1. CONCLUSION

IEE has been prepared for FINELINE COMPANY LIMITED is located at Plot No. 107, Myay Taing Block No.Thilawa Industrial Zone, Thanlyin-Kyauktan Township, Yangon Region. The main objective of the study is focused specially on the required environmental management measures or creating environmentally friendly workplace. An IEE has been carried out for the factory according to the requirement of the proponent as it has been made for manufacturing of various kinds of bags on CMP basis.

FINELINE COMPANY LIMITED is using ground water for both industrial and household purpose, which is supplied by deep tube well. The factory also has generators for electricity generation. The fuel used in the industry is Diesel. The sanitary liquid waste of the factory is stored in septic tank.

The major pollution caused by the factory's operation are water pollution by discharging liquid waste generated in wet process i.e. air pollution by generator's effluent gas emission, noise pollution created during the operation of generator and other machines.

Solid wastes (recycle waste) such as broken machine parts, paper box, fabric scraps, etc. are hand over to local waste buyer. Although the factory causes some pollution but also has a positive side and that is the factory has created employment for many people, due to this factory local community has built up daily.

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

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

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

In conclusion, it has been figured out that, the proposed Bags 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.

9.2. 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 (Chapter 8) and practiced at operation level.
- Keep full records of environmental management activities and present to annual independent third-party environment audit.
- Abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

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

APPENDIX A

YRIC Endorsement of FINELINE COMPANY LIMITED




ပုံစံ (၅-ခ)

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ
အတည်ပြုမိန့်

အတည်ပြုမိန့်အမှတ် ရကတ-၃၆၄/၂၀၂၀ ၂၀၂၀ ပြည့်နှစ် ဖေဖော်ဝါရီလ ၂၁ ရက်
ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှု ကော်မတီသည် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ဥပဒေ
ပုဒ်မ-၂၅(ဃ) အရ ဤအတည်ပြုမိန့်ကိုထုတ်ပေးလိုက်သည် -

- (၁) ရင်းနှီးမြှုပ်နှံသူ/ကမကထပြုသူအမည် MR. YANG XU
- (၂) နိုင်ငံသား CHINESE
- (၃) နေရပ်လိပ်စာ ROOM 601, BUILDING 15, NO.150,DONGYI ROAD, PANYU DISTRICT, GUANGZHOU CITY, GUANGDONG PROVINCE, THE PEOPLE'S REPUBLIC OF CHINA
- (၄) ပင်မအဖွဲ့အစည်းအမည်နှင့်လိပ်စာ NAN XIANG ENTERPRISES LTD, FLAT/RM 9, 11/F, 53-55 AU PUI WAN STREET, MECCO INDUSTRIAL BUILDING, HONG KONG
- (၅) ဖွဲ့စည်းရာအရပ် HONG KONG
- (၆) ရင်းနှီးမြှုပ်နှံသည့်လုပ်ငန်းအမျိုးအစား CMP စနစ်ဖြင့် အိတ်အမျိုးမျိုး ချုပ်လုပ်ခြင်းလုပ်ငန်း
- (၇) ရင်းနှီးမြှုပ်နှံသည့်အရပ်ဒေသ(များ) မြေကွက်အမှတ် ၁၀၇၊ မြေတိုင်း ရပ်ကွက် အမှတ်-သီလဝါ စက်မှုဇုန်၊ သန်လျင်-ကျောက်တန်းမြို့နယ်၊ရန်ကုန်တိုင်းဒေသကြီး
- (၈) နိုင်ငံခြားမတည်ငွေရင်း ပမာဏ အမေရိကန်ဒေါ်လာ ၂,၀၈၇ သန်း
- (၉) နိုင်ငံခြားမတည်ငွေရင်းယူဆောင်လာရမည့်ကာလ အတည်ပြုမိန့် ရရှိသည့် နေ့မှ ၁ နှစ်အတွင်း
- (၁၀) စုစုပေါင်း မတည်ငွေရင်းပမာဏ(ကျပ်) အမေရိကန်ဒေါ်လာ ၂,၀၈၇သန်း နှင့် ညီမျှသော မြန်မာကျပ်ငွေ
- (၁၁) တည်ဆောက်မှုကာလ ၁ နှစ်
- (၁၂) ရင်းနှီးမြှုပ်နှံမှုခွင့်ပြုသည့်သက်တမ်း ၃၀ နှစ်
- (၁၃) ရင်းနှီးမြှုပ်နှံမှုပုံစံ ရာခိုင်နှုန်းပြည့်နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု
- (၁၄) မြန်မာနိုင်ငံတွင်ဖွဲ့စည်းမည့်ကုမ္ပဏီအမည် FINELINE COMPANY LIMITED




 (ဖြိုးမင်းသိန်း)
 ၆၈၈၈ ၃



Form (5-B)

THE REPUBLIC OF THE UNION OF MYANMAR

Yangon Region Investment Committee

ENDORSEMENT

Endorsement No. YGN -364/2020


Date 21 February 2020

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. YANG XU
- (2) **Citizenship** CHINESE
- (3) **Residence Address** ROOM 601, BUILDING 15, NO.150, DONGYI ROAD, PANYU DISTRICT, GUANGZHOU CITY, GUANGDONG PROVINCE, THE PEOPLE'S REPUBLIC OF CHINA
- (4) **Name and Address of Principal Organization** NAN XIANG ENTERPRISES LTD, FLAT/RM 9, 11/F, 53-55 AU PUI WAN STREET, MECCO INDUSTRIAL BUILDING, HONG KONG
- (5) **Place of Incorporation** HONG KONG
- (6) **Type of business** MANUFACTURING OF VARIOUS KINDS OF BAGS ON CMP BASIS
- (7) **Place(s) of investment Project** PLOT NO. 107,MYAY TAING BLOCK NO. THILAWA INDUSTRIAL ZONE,THAN LYIN-KYAUKTAN TOWNSHIP, YANGON REGION
- (8) **Foreign Capital Amount** US\$ 2.087 MILLION
- (9) **Period for Foreign Capital to be brought in** WITHIN 1 YEAR FROM THE DATE OF ISSUANCE OF ENDORSEMENT
- (10) **Total Amount of Capital (Kyat)** EQUIVALENT IN KYAT OF US\$ 2.087 MILLION
- (11) **Construction/ Preparation Period** 1 YEAR
- (12) **Validity of Endorsement** 30 YEARS
- (13) **Form of Investment** WHOLLY FOREIGN OWNED
- (14) **Name of Company Incorporated in Myanmar** FINELINE COMPANY LIMITED



YRIC 3642020


(Phyto Min Thein)
Chairman



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THE REPUBLIC OF THE UNION OF MYANMAR
YANGON REGION INVESTMENT COMMITTEE

Plot No. 49, Seinlae May Street,

Kabar Aye Pagoda Road, Yankin Township, Yangon

Tel : 01- 658263

Our ref : YRIC -1 /E-364/2020(1513-P)

Fax: 01- 658264

Date : 21 February 2020

Subject: Decision of the Yangon Region Investment Committee regarding an Endorsement for manufacturing of various kinds of bags on CMP basis under the name of Finline Company Limited

Reference: Finline Company Limited's letter dated 5/2/2020

1. The Yangon Region Investment Committee, at its (3/2020) meeting held on 19/2/2020, approved the Endorsement for investment for manufacturing of various kinds of bags on (CMP) basis under the name of Finline Company Limited submitted by Nan Xiang Enterprises Ltd (100%) from Hong Kong as a wholly foreign owned investment in accordance with the Myanmar Investment Law and Rules.
2. The terms and conditions of the Endorsement are as follows:
 - (a) The term of an Endorsed project shall be thirty (30) years commencing from the date of the issuance of the Endorsement by the Yangon Region Investment Committee.
 - (b) The term of the land and building Lease Agreement shall be ten (10) years commencing from the date of the agreement between Waung Law Shin @ U Hla Thein, Koe Kyin Hoon @ Daw Khin Khin Yee (Lessors) and Finline Company Limited (Lessee) by mutual agreement between the Lessor and the Lessee subject to the approval of the Yangon Region Investment Committee.
 - (c) The annual rent for land and building shall be Kyats 120 million (Kyats One Hundred and twenty million only) for the total area of the land measuring 2.388 acres.

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- 2 -

- (d) Finline Company Limited may submit an application form for the right to use land under Chapter XII and exemptions and reliefs under Sections 75, 77 and 78 of the Chapter XVIII of Myanmar Investment Law.
- (e) Finline Company Limited shall use its best efforts to achieve a timely realization of the work stated in the Endorsement application.
- (f) Finline Company Limited shall obey and respect the responsibilities of investors under Section 65 of Myanmar Investment Law and Chapter XX of Myanmar Investment Rules.
- (g) Finline Company Limited shall carry out of prevention, mitigation and monitoring of significant environmental impacts according to the type of investment activities in accordance with the relevant laws, rules, regulations and procedures.
- (h) Finline Company Limited shall abide by the FireServices Department's rules, regulations, directives and instructions. Moreover, Finline Company Limited shall undertake fire prevention measure such as the appropriate placement of water storage tank, fire hooks, sand bags, and fire extinguishers , and training will be provided to all employees regarding the use of fire fighting equipment. Finline Company Limited shall also appoint a specific individual who shall be called the fire Safety Officer (FSO) who shall be designated responsible for on-site safety and coordination within the organization.
- (i) Finline Company Limited shall submit to the Myanmar Investment Commission any sublease, mortgage, transfer of shares or transfer of the business to any person during the investment period in

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- 2 -

- (d) Finline Company Limited may submit an application form for the right to use land under Chapter XII and exemptions and reliefs under Sections 75, 77 and 78 of the Chapter XVIII of Myanmar Investment Law.
- (e) Finline Company Limited shall use its best efforts to achieve a timely realization of the work stated in the Endorsement application.
- (f) Finline Company Limited shall obey and respect the responsibilities of investors under Section 65 of Myanmar Investment Law and Chapter XX of Myanmar Investment Rules.
- (g) Finline Company Limited shall carry out of prevention, mitigation and monitoring of significant environmental impacts according to the type of investment activities in accordance with the relevant laws, rules, regulations and procedures.
- (h) Finline Company Limited shall abide by the FireServices Department's rules, regulations, directives and instructions. Moreover, Finline Company Limited shall undertake fire prevention measure such as the appropriate placement of water storage tank, fire hooks, sand bags, and fire extinguishers , and training will be provided to all employees regarding the use of fire fighting equipment. Finline Company Limited shall also appoint a specific individual who shall be called the fire Safety Officer (FSO) who shall be designated responsible for on-site safety and coordination within the organization.
- (i) Finline Company Limited shall submit to the Myanmar Investment Commission any sublease, mortgage, transfer of shares or transfer of the business to any person during the investment period in

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- 3 -

accordance with Section 72 of Myanmar Investment Law and Rule 191 of Myanmar Investment Rules.

- (j) Fineline Company Limited shall submit an annual report in the prescribed form to the Myanmar Investment Commission within three months of the end of the financial year in accordance with Rule 196 of Myanmar Investment Rules and shall disclose a summary of the report on its website or the Myanmar Investment Commission's website.
- (k) Fineline Company Limited must, during the operation period under the Endorsement of the Yangon Region Investment Committee, submit its operating report quarterly in the prescribed form in accordance with Rule 197 of Myanmar Investment Rules.

3. Fineline Company Limited shall carry out in accordance with the laws, regulations and stipulations of relevant Union Ministries, governmental department and governmental organizations the obtaining of any licence, permit or registration as per Section 65(d) of Myanmar Investment Law.

4. Fineline Company Limited shall submit five (5) copies of all approvals, licences, permits and similar authorizations relevant to the initial implementation of the investment and Lease Agreement to the Yangon Region Investment Committee.



(Phyo Min Thein)

Chairman

Fineline Company Limited

cc: 1. The Office of the Union Government

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- 4 -

2. Ministry of office of the Union Government
3. Ministry of Home Affairs
4. Ministry of Planning, Finance and Industry
5. Ministry of Investment, Foreign Economic Relations
6. Ministry of Natural Resources and Environmental Conservation
7. Ministry of Labour, Immigration and Population
8. Ministry of Commerce
9. Central Bank of Myanmar
10. Office of the Myanmar Investment Commission
11. Chairman, CMP Enterprises Supervision Committee
12. Director General, National Archives Department
13. Director General, Customs Department
14. Director General, Internal Revenue Department
15. Director General, Directorate of Industrial Supervision and Inspection
16. Director General, Directorate of Investment and Company Administration
17. Director General, Department of Environmental Conservation
18. Director General, Directorate of Labour
19. Director General, Department of Immigration
20. Director General, Department of Trade
21. Monitoring and Supervision Division, Directorate of Investment and Company Administration

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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



EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for one year from (1.1.2020) to (31.12.2020)
ဤလက်မှတ်အား (၁-၁-၂၀၂၀) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀) ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for six month from (1.1.2021) to (30.6.2021)
ဤလက်မှတ်အား (၁-၁-၂၀၂၁) ရက်နေ့မှ (၃၀-၆-၂၀၂၁) ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for six months from (1.7.2021) to (31.12.2021)
ဤလက်မှတ်အား (၁-၇-၂၀၂၁) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၁) ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department



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



No. 10048 Date 31.03.2018

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 |

EXTENSION
 သက်တမ်းတိုးမြှင့်ခြင်း
 The VALIDITY of this certificate is extended
 for one year from (1.4.2018) to (31.3.2019)
 ဤလက်မှတ်အား (၁-၄-၂၀၁၈) ရက်နေ့မှ (၃၁-၃-၂၀၁၉)
 ရက်နေ့အထိ တစ်နှစ်သက်တမ်း တိုးမြှင့်သည်။
 For Director General
 (Soe Naing, Director)
 Environmental Conservation Department

(Handwritten signature)

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 six month from (1.1.2021) to (30.6.2021)
ဤလက်မှတ်အား (၁-၁-၂၀၂၁) ရက်နေ့မှ (၃၀-၆-၂၀၂၁) ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for six months from (1.7.2021) to (31.12.2021)
ဤလက်မှတ်အား (၁-၇-၂၀၂၁) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၁) ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
Soe Naing
For Director General
(Soe Naing, Director)
Environmental Conservation Department

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)လ သက်တမ်း တိုးမြှင့်သည်။
Soe Naing
10.6.2019
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for one year from (1.1.2020) to (31.12.2020)
ဤလက်မှတ်အား (၁-၁-၂၀၂၀) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀) ရက်နေ့အထိ တစ်နှစ် သက်တမ်း တိုးမြှင့်သည်။
Soe Naing
16.1.2020
For Director General
(Soe Naing, Director)
Environmental Conservation Department

APPENDIX C

Environmental Monitoring Quality Result

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) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	Fineline Company Limited
Project Location:	Plot No.107, Myay Taing Block No.Thilawa Industrial Zone, Thanlyin-Kyauktan Township, Yangon Region.
Sampling Date :	3 May, 2022
Sampling Time:	11 am to 5:00 pm
Sampling Condition:	Normal Condition
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
Digital Sound Level Meter	GM 1356 USB	30 -130 dB	Operation Area

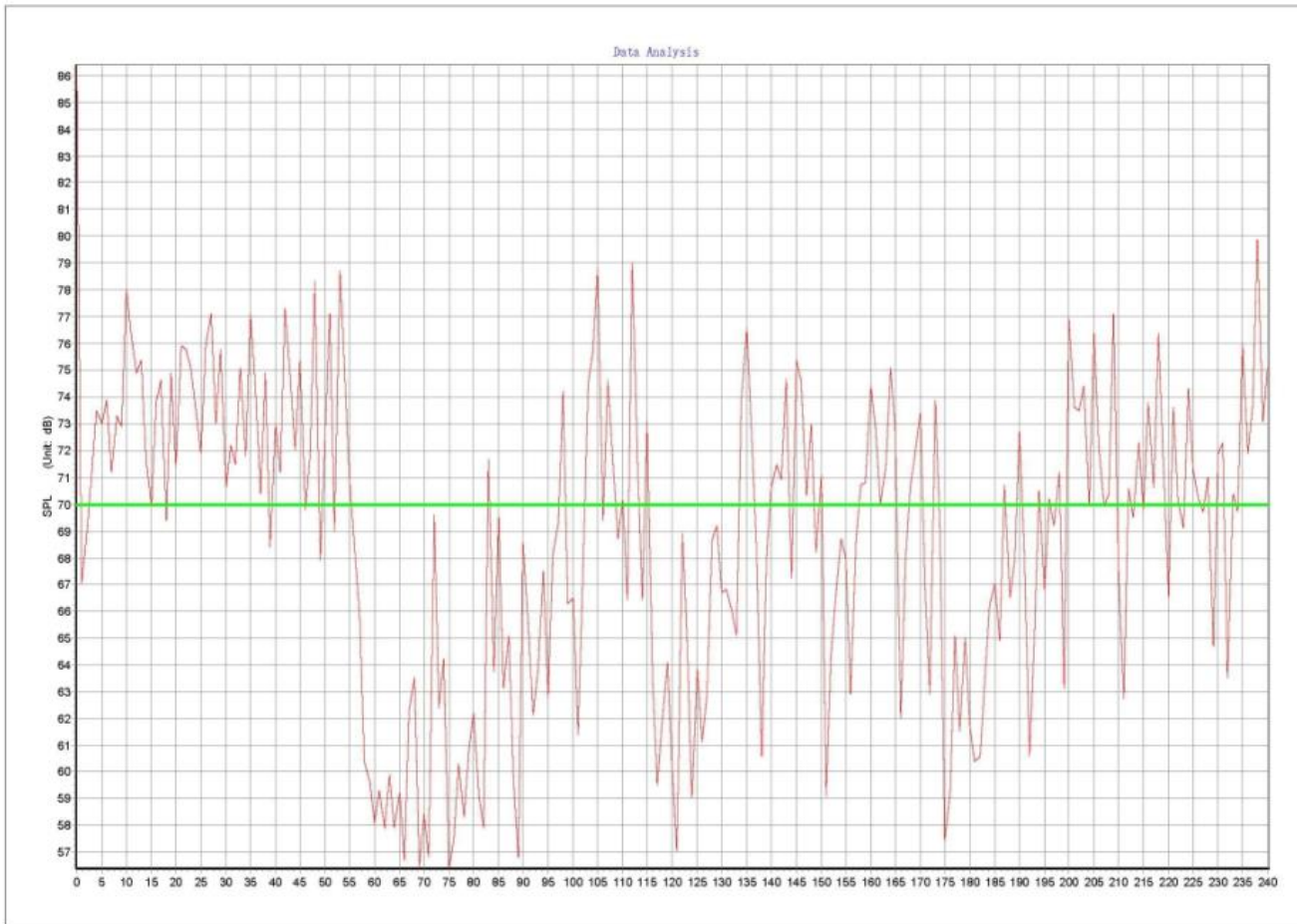
No	Place	Lat/Long	Result	Standard	Remark
1	Operation Area	16° 39' 59" N 96° 17' 28" E	68.807 dBA	70 dBA	

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.

Monitoring Graph



— Noise Result

— NEQGuideline

Air Quality 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:	Fineline Company Limited
Project Location:	Plot No. 107, Myay Taing Block No.Thilawa Industrial Zone, Thanlyin-Kyauktan Township, Yangon Region.
Sampling Date:	3 May, 2022
Sampling Time:	11:00 am to 5:00 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 10b	24-hour	20 50	($\mu\text{g}/\text{M}^3$)
PM 2.5b	24-hour	10 25	($\mu\text{g}/\text{M}^3$)
NH3	-	-	
CO	-	-	
NO2	1-hour	40 200	
SO2	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	25.87	50	$\mu\text{g}/\text{m}^3$	NEQG	8 hrs
PM _{2.5}	22	25	$\mu\text{g}/\text{m}^3$	NEQG	8 hrs
SO ₂	11.8	500	$\mu\text{g}/\text{m}^3$	NEQG	10 mins
NO ₂	22	200	$\mu\text{g}/\text{m}^3$	NEQG	1 hr
CO	354.6	-	$\mu\text{g}/\text{m}^3$	-	-


LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

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:	Fineline Company Limited
Project Location:	Plot No.107, Myay Taing Block No.Thilawa Industrial Zone, Thanlyin-Kyauktan Township, Yangon Region.
Sampling Date:	3 May, 2022
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°40'0.27"N and 96°17'28.02"E

No	Measure area	Unit	Result	Standard	Remark
1.	Warehouse	Lux	394	200	
2.	Cutting	Lux	1054	900	
3.	Gluing	Lux	548	600	
4.	Sewing	Lux	624	900	
5.	QC	Lux	1199	600	
6.	Packing	Lux	996	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 HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

APPENDIX D

Fire Safety Certificate



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:	Fineline Company Limited
Project Location:	Plot No.107, Myay Taing Block No.Thilawa Industrial Zone, Thanlyin-Kyauktan Township, Yangon Region.
Sampling Date:	3 May, 2022
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°40'0.27"N and 96°17'28.02"E

No	Measure area	Unit	Result	Standard	Remark
1.	Warehouse	Lux	394	200	
2.	Cutting	Lux	1054	900	
3.	Gluing	Lux	548	600	
4.	Sewing	Lux	624	900	
5.	QC	Lux	1199	600	
6.	Packing	Lux	996	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 HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

APPENDIX E

Power Point Presentation Slides

FINELINE COMPANY LIMITED ၏ CMP စနစ်ဖြင့်
အိတ်အမျိုးမျိုးချုပ်လုပ်ခြင်းလုပ်ငန်း

ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအတွက်
သွေးခန္ဓာခြင်း

ပြင်ဆင်ရေး ညွှန်ကြားရေး
 Prepared By
 Myanmar Environmental Solutions Co., Ltd

အစည်းအဝေး အကြောင်းအရာ

- ၁။ Fineline Company Limited အား မိတ်ဆက်ခြင်း
- ၂။ ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း နှင့် ပတ်ဝန်းကျင် အကြောင်းအရာများအား မိတ်ဆက်ခြင်း
- ၃။ သတ်မှတ်မှုဆန်းစစ်ခြင်း ရလဒ်များနှင့် ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ
- ၄။ ပတ်ဝန်းကျင်အပေါ် သက်ရောက်မှုများနှင့် ဖြေလျှော့ရေးနည်းလမ်းများ
- ၅။ ပတ်ဝန်းကျင်မီမန် နှင့် အစီအစဉ် နှင့်
- ၆။ စက်ရုံအဆောင်ရွက်ချက်များ

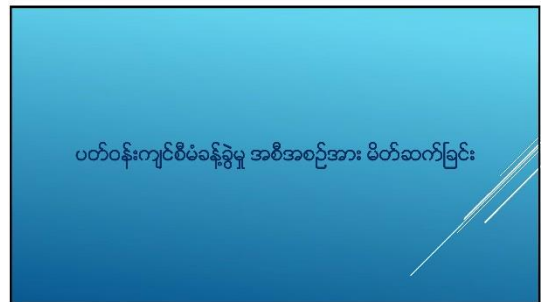


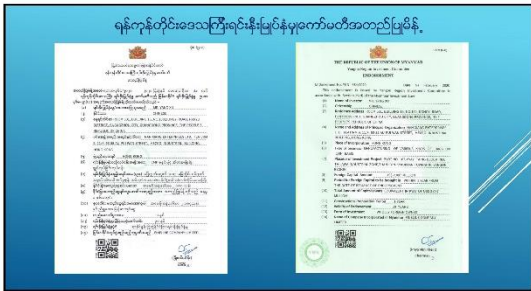
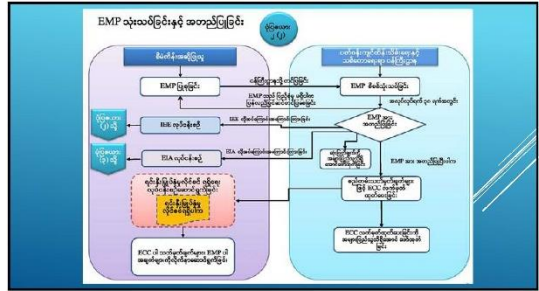
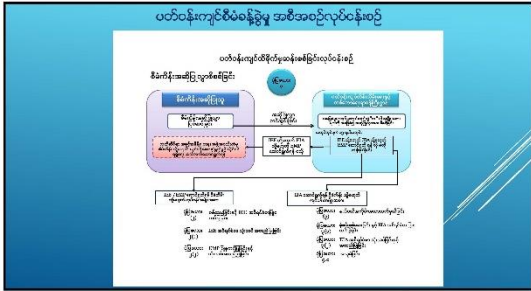


FINELINE COMPANY LIMITED	
လုပ်ငန်းအမျိုးအစား	CMP စနစ်ဖြင့်ထိတ်အမျိုးမျိုးချုပ်လုပ်ခြင်းလုပ်ငန်း။
ခွင့်ပြုမိန့်အမှတ်	(အတည်ပြုမိန့်အမှတ် ၅၇၀၀- ၃၆၄/၂၀၂၀) ၂၀၂၀ ပြည့်နှစ် ၊ ဇေဇော်ဝါရီလ ၊ ၂၀ ရက်
ရင်းနှီးမြှုပ်နှံမှု	ရာခိုင်နှုန်းပြည့် နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု
ပြောဆိုယာ	ပြောဆိုယာစုစုပေါင်း = ၂.၃၈၈ ဧက (၉၆၆၃.၈၉ ဧကရန်းစီတာ)
ရင်းနှီးမြှုပ်နှံသည့်ကာလ	၃၀ နှစ်
ဝက်ရှင်လိပ်စာ	မြေကွက်အမှတ်-၁၀၇၇၊ မြေတိုင်းရပ်ကွက်အမှတ်-၁၁၊ လှိုင်ဝက်ရှင်လိပ်စာ၊ သန့်လျှင်ကျောက်တန်းမြို့နယ်၊ ရန်ကင်းလမ်းအေးသာကြီး

လုပ်ငန်းလည်ပတ်ရန်အခြေခံလိုအပ်ချက်များ	
ရေအသုံးပြုမှုအခြေအနေ	
ရေအရင်းအမြစ်	အိမ်ထောင်စရိတ် (၁ တွင်း)
အဓိကလိုအပ်ချက်	
လက်ရှိလုပ်ငန်းစရိတ်	နိုင်ငံခြားသားလုပ်သား (၁၀) ဦး နှင့် နိုင်ငံသား (ပြည်တွင်း) လုပ်သား (၉၇၀) ဦး
အဓိကကုန်ကြမ်း	Pu Material, Pvc Material, Leather, Canvas, Nylon နှင့် အခြားဆက်စပ်ပစ္စည်းများ
နှစ်စဉ်ထွက်ကုန်ပစ္စည်းပမာဏ	နှစ်စဉ် ဖွဲ့စည်းရေးအတွက် ပထမနှစ်မှ ၁၀နှစ်အတွင်း ၁၇,၇၀၀,၀၀၀ မှ (၁၉,၄၇၀,၀၀၀)အထိ







သက်ရောက်မှုဆန်းစစ်ခြင်းရလဒ်များနှင့် ထိခိုက်မှုအဆင့်သတ်မှတ်ချက်များ

စီမံကိန်းပတ်ဝန်းကျင်အနေအထား

၈၆	အခြေအနေအထား	အဆိုပြုချက်
၈၇	ကိုဩဒိနိတ်အမှတ်	မြောက်လတ္တီကျု 16°40' 27"နှင့် အရှေ့လောင်ဂျီကျု 96°17'28.02"
၂	ရာထီထုတ်အခြေအနေ	သန့်လွတ်သောပတ်ဝန်းကျင်၊ နှစ်ရပ်နှံပင်ပျော့ပျော်အရွက် 39%၊ အခိုင်အမာအရွက် 15%၊ စုစုပေါင်း မိုးရေချိန်လက်မ 2681 လက်မ
၃	စက်ရုံအနီးကပ်ခြေအသုံးချမှု	စက်ရုံပတ်ဝန်းကျင်အခြေအနေအထား (စက်ရုံအနီး)
၄	လမ်းပန်းဆက်သွယ်ရေး	သိလင်လမ်းမကြီး
၅	အနီးအနားအခြေအနေ	ရေကန်ကြီး
၆	သစ်အစားအစာ	မရှိ
၇	ကန့်သတ်တားမြစ်ထားသော ဓာတ်ပစ္စည်း	မရှိ
၈	တိုင်တားချက်	<input type="checkbox"/> အညွှတ်တိုင် တိုင်တားခြင်း <input type="checkbox"/> အလင်းရောင် တိုင်တားခြင်း <input type="checkbox"/> မူလအခြေအနေအထား တိုင်တားခြင်း <input type="checkbox"/> အမှတ်စဉ် နှင့် ဝိုင်ကွက် အမှတ်အသား တိုင်တားခြင်း

ဆူညံသံတိုင်းတာမှု

Date and Time	Location	GPS value	Result value	NEQ Guideline
3 May 2022 (11:00 am to 5:00 pm)	Operation Area	16°29'59"N 96°17'28"E	68.807 dBA	70 dBA

အထက်ဖော်ပြပါ ဆူညံသံတိုင်းတာမှုလုပ်ငန်းအရ Fineline Company Limited ၏ဆူညံသံများမှာ National Emission Quality Guideline အတွင်းတွင်ရှိကြောင်းကို သိန်းစစ်တွေ့ရှိရပါသည်။



လုပ်ငန်းခွင်အလင်းရောင်တိုင်းတာမှု

Visual test	Illumination (lux)	Glare index
Casual reading	100	28
Rough task with large detail	200	25-28
Ordinary task/medium detail	400	25
Fairly severe task, small detail (e.g. drawing, oil/co. work)	500	19-22
Severe, prolonged task, very small detail (e.g. fine assembly, hand finishing)	900	16-22
Very severe, prolonged task, very small detail (e.g. precision factory finishing, gauging very small parts)	1,100-2,000	13-16

လုပ်ငန်းခွင်အတွင်းအလင်းရောင်တိုင်းတာမှု

No.	Location	Measure value (Lux)	Standard*
1	Workroom	351	350
2	Cutting Area	1054	1000
3	Claying Area	348	1000
4	Sewing Area	624	600
5	QC	1189	600
6	Packing	996	600



ပတ်ဝန်းကျင်လေထုတိုင်းတာမှု

Parameters	Observed value	Guideline value	Unit	Organization	Averaging period
PM _{2.5}	21.16	10 25	µg/m ³	NEQG	24 hrs 1 year
PM ₁₀	25.87	50 200	µg/m ³	NEQG	24 hrs 1 year
SO ₂	11.7	500 20	µg/m ³	NEQG	10 minutes 24 hrs
NO ₂	22	200 40	µg/m ³	NEQG	1 hr 1 year
O ₃	9.1	160	ppm	NAAQS	8 hrs maximum
CO	254.6	10	ppm	ACCIII	24 hrs

ပတ်ဝန်းကျင်လေထုတိုင်းတာမှု

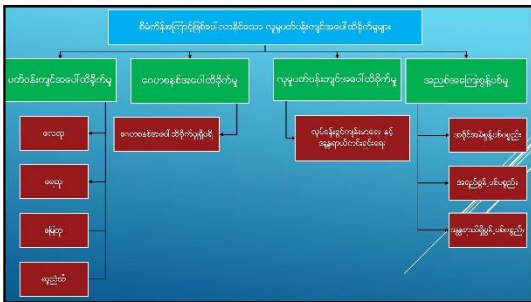


အပူချိန်နှင့်ပိုဝိုင်းဆတိုင်းတာမှု



Fineline Company Limited ၏ လုပ်ငန်းခွင်ပျက်ယူမှုပိုဝိုင်းမှုမှာ ၄၉.၃% နှင့် အပူချိန်တိုင်းတာမှုမှာ ၃၆.၃°C ရှိပါသည်။

ပတ်ဝန်းကျင်အပေါ်သက်ရောက်မှုများနှင့် ဖြေလျှော့ရေးနည်းလမ်းများ



ဆောင်ရွက်မှု	စီမံကိန်းဆောင်ရွက်ခြင်း	ဖြေလျှော့ရေးနည်းလမ်းဆောင်ရွက်မှု
ဆည်ပိတ်	• စီမံကိန်း အင်အားစွမ်းဆောင်ရည်နှင့် အစီအစဉ်ပေးပို့ အသုံးပြုမှုလုပ်ငန်းစဉ်နှင့် ပတ်ဝန်းကျင်အပေါ် ထိခိုက်မှု	• ဆည်ပိတ်ဆောင်ရွက်မှုအစီအစဉ်ကို အကောင်အထည်ဖော် ထည့်သွင်းခြင်း • ပတ်ဝန်းကျင်ထိခိုက်မှုကို ၀.၀၀ အန္တရာယ်ဆောင်ရွက်ခြင်း
ပိတ်ဆို့ရေးစနစ်	• ဝန်ထုပ်ဝန်ပိုးထိခိုက်မှုနှင့် လျှပ်စစ်သုံးစွဲမှု ဖယ်ရှားခြင်း	• ဝန်ထုပ်ဝန်ပိုးထိခိုက်မှုအစီအစဉ် ထည့်သွင်းခြင်း • လျှပ်စစ်သုံးစွဲမှုများကို အစီအစဉ် အသုံးပြုခြင်း
စွန့်ပစ်ဆိုင်ရာ	• ပတ်ဝန်းကျင်ထိခိုက်မှုနှင့် အန္တရာယ်ဆိုင်ရာ စွန့်ပစ်ဆိုင်ရာ စီမံကိန်းများ	• စွန့်ပစ်ဆိုင်ရာစီမံကိန်းအစီအစဉ် ထည့်သွင်းခြင်းနှင့် စွန့်ပစ်ဆိုင်ရာ စီမံကိန်းအစီအစဉ် ထည့်သွင်းခြင်း
စွန့်ပစ်ဆိုင်ရာ	• အန္တရာယ်ဆိုင်ရာစီမံကိန်းအစီအစဉ် ထည့်သွင်းခြင်း	• စွန့်ပစ်ဆိုင်ရာစီမံကိန်းအစီအစဉ် ထည့်သွင်းခြင်း
အန္တရာယ်ဆိုင်ရာ	• ပတ်ဝန်းကျင်ထိခိုက်မှုများ နှင့် လုပ်ငန်းစဉ်အပေါ် ထိခိုက်မှုများ စီမံကိန်းအစီအစဉ် ထည့်သွင်းခြင်း	• ပတ်ဝန်းကျင်ထိခိုက်မှုများ အစီအစဉ် ထည့်သွင်းခြင်းနှင့် အန္တရာယ်ဆိုင်ရာစီမံကိန်းအစီအစဉ် ထည့်သွင်းခြင်း

ရွှေနိုင်ငံစာပေတွင် ဝါမ်းဝါမ်းစာပေ	
ရည်ရွယ်ချက်	မြို့တော်စာပေ၊ မြို့တော်စာပေ၊ ညင်ညင်စာပေ
ရိုက်ရာစာပေတွင် ထည့်သွင်းပါမည့်	<ul style="list-style-type: none"> • မဝတ်စုံ၊ မကျတဝါးတို့ကို ဖော်ပြခြင်း၊ ဝါမ်းဝါမ်းစာပေ (၂၀၀၅) • အချို့သော မဝတ်စုံကို ဖော်ပြခြင်း၊ အချို့သော မဝတ်စုံကို ဖော်ပြခြင်း (၂၀၀၅)
ပိုမိုနားလည်စေရန်	<ul style="list-style-type: none"> • ဝတ်စုံစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း • လူ့စာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း • မိသားစုစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း • ဝတ်စုံစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း
ဘာသာစုံစာပေတွင် ပုံစံ	မဂ္ဂဇင်း၊ စာအုပ်၊ ဝက်ဘ်ဆိုက် (The Daily Star) ဖြင့် ပြန်လည် ထုတ်ဝေခြင်း

ရွှေနိုင်ငံစာပေတွင် ဝါမ်းဝါမ်းစာပေ	
ရည်ရွယ်ချက်	ရွှေနိုင်ငံစာပေတွင် ဝါမ်းဝါမ်းစာပေကို ဖော်ပြခြင်း
ပိုမိုနားလည်စေရန်	<ul style="list-style-type: none"> • မဝတ်စုံစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း • ဝတ်စုံစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း • မိသားစုစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း • ဝတ်စုံစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း
ဘာသာစုံစာပေတွင် ပုံစံ	မဂ္ဂဇင်း

မြန်မာ့စာပေတွင် ဝါမ်းဝါမ်းစာပေ	
ရည်ရွယ်ချက်	မြန်မာ့စာပေတွင် ဝါမ်းဝါမ်းစာပေ
ရိုက်ရာစာပေတွင် ထည့်သွင်းပါမည့်	The Underground Myanmar (1910)
ပိုမိုနားလည်စေရန်	<ul style="list-style-type: none"> • မဂ္ဂဇင်း၊ စာအုပ်၊ ဝက်ဘ်ဆိုက် (The Daily Star) ဖြင့် ပြန်လည် ထုတ်ဝေခြင်း • မိသားစုစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း • ဝတ်စုံစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း
ဘာသာစုံစာပေတွင် ပုံစံ	မဂ္ဂဇင်း

မြန်မာ့စာပေတွင် ဝါမ်းဝါမ်းစာပေ	
ရည်ရွယ်ချက်	မြန်မာ့စာပေတွင် ဝါမ်းဝါမ်းစာပေ
ရိုက်ရာစာပေတွင် ထည့်သွင်းပါမည့်	The Underground Myanmar (1910)
ပိုမိုနားလည်စေရန်	<ul style="list-style-type: none"> • မဂ္ဂဇင်း၊ စာအုပ်၊ ဝက်ဘ်ဆိုက် (The Daily Star) ဖြင့် ပြန်လည် ထုတ်ဝေခြင်း • မိသားစုစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း • ဝတ်စုံစာပေတွင် အချို့သော စာပေကို ထည့်သွင်းဖော်ပြခြင်း
ဘာသာစုံစာပေတွင် ပုံစံ	မဂ္ဂဇင်း





Fineline Company Limited ၏ အပိုက်ပစ္စည်းပစ္စည်းအသုံးပြုမှုများ

***THANK YOU FOR YOUR
PATIENT ATTENTION!***