MYANMAR COTTON SPINNING GARMENT ACCESSORIES CO., LTD.

Environmental Management Plan

Manufacturing of Gunned Cotton, Eiderdown Cotton & Honing for Local CMP Garment Enterprises

31-Jan-24

MYANMAR COTTON SPINNING GARMENT ACCESSORIES CO., LTD
No. (93/A), Corner of Mya Taung Wun U Hmo Street & Min Theiddhi Kyaw Swar Street, Hlaing Thar Yar Industiral Zone (3),
Hlaing Thar Yar Township, Yangon. Tel: 13801403677, Email: lpj13801403677@vip.163.com

Date: 31, 1, 2024

Commitment of Myanmar Cotton Spinning Garment Accessories Company Limited

Myanmar Cotton Spinning Garment Accessories Company Limited 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.

Myanmar Cotton Spinning Garment Accessories will at all times comply fully with all commitment and obligations in the EMP report.

We acknowledge and understand that

MYANMAR COTTON SPINNING GARMENT ACCESSORIES CO., LTD
No.
Date.

Mr Miao GuangYu

Director

Myanmar Cotton Spinning Garment Accessories

LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Abbreviation

1. AQM = Air Quality Monitor
2. BOD = Biological Oxygen Demand
3. CEMP = Construction Environmental Management Plan
4. CMP = Contract Manufacturing Process
5. COD = Chemical Oxygen Demand
6. CO = Carbon Monoxide
7. CO_2 = Carbon Dioxide
8. CSR = Corporate Social Responsibility
9. dB(A) = Decibel Unit
10. DO = Dissolved Oxygen
11. ECC = Environmental Compliance Certificate
12. ECD = Environmental Conservation Department
13. EIA = Environmental Impact Assessment
14. EMOP = Environmental Monitoring Plan
15. EMP = Environmental Management Plan
16. GHGs = Greenhouse Gases
17. GIIP = Good International Industry Practices
18. HSE = Health, Safety and Environment
19. IEE = Initial Environmental Examination
20. IFC = International Finance Corporation
21. NEQG = National Environmental Quality (Emission) Guidelines
22. NOx = Nitrogen Oxide
23. NO_2 = Nitrogen Dioxide
24. MIC = Myanmar Investment Commission
25. MOECAF = Ministry of Environmental Conservation and Forestry
26. MONREC = Ministry of Natural Resources and Environmental Conservation
27. MSL = Mean Sea Level
28. O_3 = Ozone
29. OEMP = Operation Environmental Management Plan
30. OSHA = Occupational Safety and Health Administration
31. PPE = Personal Protective Equipment
32. PM = Particulate Matter
33. QC = Quality Control
34. SO_2 = Sulfur Dioxide
35. SP = Significant Point
36. TDS = Total Dissolved Solids
37. WHO = World Health Organization
38. YCDC = Yangon City Development Committee
39. YESB = Yangon City Electricity Supply Board
40. YRIC = Yangon Region Investment Committee
41. % = Percentage

အစီရင်ခံစာအကျဉ်းချုပ်

နိဒါန်း

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်သည် ရေရှည်ဖွံ့ဖြိုးတိုးတက်ရေးကိုဖော်ဆောင်ရာတွင် လိုအပ်သောအရာတစ်ခုဖြစ်ပါသည်။ ဤအစီရင်ခံစာတွင် ထည့်သွင်းဖော်ပြထားသည့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်များကို Myanmar Cotton Spinning Garment Accessories Co.,Ltd. မှ အကောင်အထည်ဖော်ဆောင်ရွက် ရန်လိုအပ်မည်ဖြစ်ပါသည်။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) သည် စီမံကိန်းလုပ်ငန်းလည်ပတ်ဆောင်ရွက်ခြင်းကြောင့် ဖြစ်ပေါ်လာမည့် ပတ်ဝန်ကျင်ဆိုင်ရာညစ်ညမ်းမှုများကို ထိန်းချုပ်ရန်နှင့် လျော့ချမည့်နည်းလမ်းများနှင့်အညီလိုက်နာဆောင်ရွက်ရန်နှင့် သက်ဆိုင်ရာ ဥပဒေ၊ လုပ်ထုံးလုပ်နည်းနှင့်စည်းကမ်းချက်များကို လိုက်နာ ဆောင်ရွက်ရန် ရည်ရွယ်ပါသည်။

စီမံကိန်းသည် အထည်ချုပ်လုပ်ငန်းများတွင်အသုံးပြုသော Gunned Cotton, Eiderdown Cotton and Honing များ ထုတ်လုပ်၍ ပြည်တွင်းရှိ CMP အထည်ချုပ်လုပ်ငန်းများသို့ ရောင်းချခြင်းလုပ်ငန်းအတွက် ရင်းနှီးမြှုပ်နှံသော ကုမ္ပဏီဖြစ်ပါသည်။ ရင်းနှီးမြှုပ်နှံမှုလိုင်စင်ကို ၂၀၂၀ခုနှစ်၊ ဇွန်လ၊ ၁၁ ရက်နေ့တွင် (ထောက်ခံချက်အမှတ်ရကတ-၃၉၁/၂၀၂၀)ဖြင့် ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီမှ ရရှိပြီးဖြစ်ပါသည်။ လုပ်ငန်းလည်ပတ်ရန်အတွက် မြန်မာနိုင်ငံသယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဝန်ကြီးဌာန (MONREC) ၏ အတည်ပြုချက်ရယူရန် လိုအပ်ကြောင်း ကော်မရှင်မှ မှာကြားခဲ့ပါသည်။

ထို့ကြောင့် မြန်မာနိုင်ငံ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂)အရ၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) ပြုလုပ်ရန်လိုအပ်ကြောင်း ၂၀၂၄ ခုနှစ်၊ ဇန်နဝါရီလ၊ ၅ ရက်နေ့တွင် (စာအမှတ်၊ အီးအိုင်အေ-၁/၆/သဘောထား (Issue) (၀၅၉/၂၀၂၄) ဖြင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန ရန်ကုန်တိုင်းဒေသကြီးမှ သဘောထားမှတ်ချက် ရရှိပြီးဖြစ်ပါသည်။

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်သည် Myanmar Cotton Spinning Garment Accessories Company Limited ၏ CMP စနစ်ဖြင့် အထည်ချုပ်လုပ်ငန်းများတွင်အသုံးပြုသော Gunned Cotton, Eiderdown Cotton and Honing များ ထုတ်လုပ်၍ ပြည်တွင်းရှိ CMP အထည်ချုပ်လုပ်ငန်းများသို့ ရောင်းချခြင်းလုပ်ငန်းအတွက် ရေးသားပြုစုထားသော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီရင်ခံစာဖြစ်သည်။ အဆိုပါ လေ့လာဆန်းစစ်ခြင်း၏ ရည်ရွယ်ချက်များမှာ-

- ✓ သဘာဝပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားပတ်ဝန်းကျင်အပေါ် စီမံကိန်းဆောင်ရွက်ချက်များကြောင့် ထိခိုက်မှုများကိုလေ့လာရန်။
- ✓ ထိုထိခိုက်မှုများကို လျော့ချနိုင်ရန် လျော့နည်းစေမည့်နည်းလမ်းများကို ဖော်ပြရန်။
- ✓ စီမံကိန်းအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ပြင်ဆင်ရန်နှင့် အကောင်အထည်ဖော်ရန်။
- ✓ စီမံကိန်းအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ လုပ်ဆောင်ရာတွင် လုံလောက်မှုရှိစေရန်။

- ✓ ဒေသခံများ၏ လူမှုရေးသက်သာချောင်ချိမှုများ တိုးမြှင့်ရန်နှင့် ဒေသတွင်း ဖွံ့ဖြိုးတိုးတက်မှုများအတွက် မရှိမဖြစ်အရေးပါသော လူမှုစီးပွားတာဝန်ယူမှုအစီအစဉ်အား အကောင်အထည်ဖော်ရန်တို့ဖြစ်ပါသည်။

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. Myanmar Investment Law, 2016
8. Myanmar Investment Rule, 2017
9. Myanmar Insurance Law (1993)
10. Payment of Wages Law (2016)
11. The Amended Law for Factories Act, 1951 (2016)
12. The Private Industrial Enterprise Law, 1990
13. The Export and Import Law (2012)
14. The Prevention of Hazard from Chemical and Related Substances Law, 2013
15. Underground Water Act
16. Myanmar Fire Brigade Law (2015)
17. The Electricity Law (2014)
18. Boiler Law (2015)
19. Labor Dispute Settlement Law (28 March 2012 replacing 1929 version)
20. The Social Security Law (2012)
21. The Employment and Skill Development (2013)
22. The Worker's Compensation Act, 1923

23. The Payment of Wages Act, 1936
24. The Leave and Holidays Act, (1951, partially revised in 2014)
25. The Minimum Wage Law (2013)
26. Public Health Law (1972)
27. Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)
28. Occupational Safety and Health Law (2019)
29. The Law on Standardization
30. လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သောဝတ္ထုပစ္စည်းများဆိုင်ရာဥပဒေ (၂၀၁၈)
31. The Motor Vehicles Law (2015)
32. The Conservation of Water Resources and River Law (2006)
33. The Commercial Tax Law (1990) Amended 2014

လုပ်ငန်းခွင်ကျန်းမာရေးနှင့်ဘေးကင်းရေးလမ်းညွှန်ချက်အား International Finance Corporation (IFC) လမ်းညွှန်ချက်များမှ ကိုးကားထားပါသည်။ Myanmar Cotton Spinning Garment Accessories Company Limited သည် သဘာဝပတ်ဝန်းကျင် ကာကွယ်ရေးနှင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် ကတိကဝတ်ပြုကာ လိုက်နာဆောင်ရွက်ပါသည်။

စီမံကိန်းဆိုင်ရာအချက်အလက်

ရင်းနှီးမြှုပ်နှံသူ၏အချက်အလက်များ

ရင်းနှီးမြှုပ်နှံသူ အမည်	Mr. Miao Guangyu
ID No.:	EH0322961
နိုင်ငံသား	တရုတ်နိုင်ငံသား
မှတ်ပုံတင်သွင်းသည့်လိပ်စာ	No.6, Group 318, Litown, Jiangsu Province, Jinhu Country, The People's Republic of China.

အစုရှယ်ယာ ၁၀ ရာခိုင်နှုန်းနှင့်အထက် ပိုင်ဆိုင်သော အစုရှယ်ယာရှင်များစာရင်း

စဉ်	အစုရှယ်ယာရှင်အမည်	နိုင်ငံသား	အစုရှယ်ယာပိုင်ဆိုင်မှုရာခိုင်နှုန်း
၁	Mr. Miao Guangyu	Chinese	၇၀ ရာခိုင်နှုန်း
၂	Mr. Zhao Weiqing	Chinese	၃၀ ရာခိုင်နှုန်း

အဆိုပြုထားသော စီမံကိန်း၏ အဓိကလက္ခဏာများ

လုပ်ငန်းအမျိုးအစား	အထည်ချုပ်လုပ်ငန်းများတွင်အသုံးပြုသော Gunned Cotton, Eiderdown Cotton and Honing များ ထုတ်လုပ်၍ ပြည်တွင်းရှိ CMP အထည်ချုပ်လုပ်ငန်းများသို့ ရောင်းချခြင်းလုပ်ငန်း

ရင်းနှီးမြှုပ်နှံမှုအမျိုးအစား	၁၀၀ ရာခိုင်နှုန်း နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု
အစုရှယ်ယာအမျိုးအစား	ရိုးရိုး
မြေအမျိုးအစား	စက်မှုဇုန်မြေ
အကျယ်အဝန်း	၁.၀၀၃ ဧက
အဆောက်အဦအရေအတွက်	(၁၈၃ x ၁၄၅)ပေ တစ်ထပ်အဆောက်အဦ (၁)လုံး၊ (၃၅ x ၄၀)ပေ နှစ်ထပ်အဆောက်အဦ (၁)လုံး။
ရင်းနှီးမြှုပ်နှံသည့်ကာလ	၂၀ နှစ်
တည်ဆောက်ရေးကာလ	၁ နှစ်
စက်ရုံစတင်လည်ပတ်သည့်နေ့	၂၈ ရက်၊ ဇူလိုင်လ၊ ၂၀၂၀ ခုနှစ်
လိပ်စာ	မြေကွက်အမှတ် (၉၃/က)၊ မြတောင်ဝန်ဦးမိုလမ်းနှင့် မင်းသိဒ္ဓိကျော်စွာလမ်း၊ လိုင်သာယာစက်မှုဇုန် (၃)၊ လိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး။
ဆက်သွယ်ရန်	ဒေါ်ဟေမာန်နွေ ၀၉၄၂၄၄၉၆၃၇၃

အဓိကကုန်ကြမ်းများမှာ Chemical Fiber Material, Glue, Plastic Bag, Printing ink, Solvent, Thread, Interlining, Elastic Fabric, Bopp, Tape တို့ဖြစ်ပါသည်။ ကုန်ကြမ်းများကို တရုတ်နိုင်ငံမှ တင်သွင်းမည်ဖြစ်ပါသည်။ ထုတ်လုပ်မှုပမာဏမှာ ပထမနှစ်မှ ၁၀ နှစ်အတွင်းတွင် Gunned Cotton သည် ၁,၈၀၀ မှ ၂,၁၀၀ တန်၊ Eiderdown Cotton သည် ၃၆၀ မှ ၆၀၀ တန် ဖြစ်ပြီး Honing သည် ၁,၀၈၀,၀၀၀ မှ ၁,၁၀၀,၀၀၀ မီတာ တို့ဖြစ်ပါသည်။ စက်ရုံတွင် လက်ရှိလုပ်သားဦးရေသည် ၃၆ ဦးဖြစ်ပါသည်။ စက်ရုံ အတွက်လိုအပ်သော ရေကို စက်ရုံအတွင်းရှိရေတွင်း ၂ တွင်းမှရယူသုံးစွဲမည်ဖြစ်ပါသည်။ လျှပ်စစ်သုံးစွဲမှုအနေဖြင့် ရန်ကုန်မြို့လျှပ်စစ်မာတ်အားပေးရေးအဖွဲ့မှ ရယူသုံးစွဲပါသည်။ ထို့အပြင် လျှပ်စစ်မီးပြတ်တောက်ပါက အရေးပေါ်သုံးစွဲ ရန်အတွက် 480 kVA နှင့် 40 kVA ဂျင်နရေတာတို့ကိုလည်းအရံသင့်ထားရှိပါသည်။ စွန့်ပစ်ရေနှင့်ပတ်သက်၍ စက်ရုံတွင် ရေနုတ်မြောင်းများထားရှိပြီး မိလ္လာကန်စနစ်ထားရှိဆောင်ရွက်ထားပါသည်။ စက်ရုံမှထွက်ရှိသည့် ကော်ရည်ပုံးခွံများအား ဒေသအတွင်းရှိ ဝယ်ယူသူများထံသို့ ပြန်လည်ရောင်းချပြီး ထုတ်လုပ်မှုဇရိယာမှ ထွက်ရှိလာသည့် ဂွမ်းများအား ၁၀၀ ပြန်လည်အသုံးပြုပါသည်။ အခြားသောစွန့်ပစ် အမှိုက်များကို ရန်ကုန်မြို့စည်ပင်သာယာရေးကော်မတီနှင့်ချိတ်ဆက်၍ စွန့်ပစ်မည်ဖြစ်ပါသည်။

အဆိုပြုစီမံကိန်းတွင် ထုတ်လုပ်မှုလုပ်ငန်းစဉ် ၃ ခုပါဝင်ပါသည်။ ၎င်းတို့မှာ Honing လုပ်ငန်းစဉ်၊ Eiderdown Cotton လုပ်ငန်းစဉ်နှင့် Gunned Cotton လုပ်ငန်းစဉ်တို့ဖြစ်ပါသည်။ Honing လုပ်ငန်းစဉ်တွင် ပိတ်စနှင့်ဂွမ်းများအား တွဲကပ်ချုပ်ပါသည်။ ထို့နောက် အရည်အသွေးစစ်ဆေးခြင်းအား လုပ်ဆောင်ပါသည်။

Eiderdown Cotton လုပ်ငန်းစဉ် ကုန်ကြမ်း ၅ မျိုး (သို့မဟုတ်) ၇ မျိုးအား ရောသမမွှေပါသည်။ ရောသမမွှေထားသော ကုန်ကြမ်းများအား စက်ဒလိမ့်တုံးများဖြင့် ကြိတ်၍နေရာချထားပါသည်။ ထို့ကြိတ်၍နေရာချထားသောဂွမ်းများပေါ်

သို့ ကော်နှင့်ရေ ရော၍ ပတ်ဖြန်းပါသည်။ နောက်ဆုံးအဆင့်တွင် ကော်နှင့်ရေ ရော၍ဖြန်းထားသော ဂွမ်လိပ်များအား အနည်းငယ်အပူပေး၍ ထုတ်ပိုးပါသည်။

Gunned Cotton လုပ်ငန်းစဉ်တွင် ကုန်ကြမ်း ၁ မျိုး(သို့မဟုတ်) ၂ မျိုးအား ရော၍ စက်ထဲတွင် ကြိတ်ချေပြီး နောက် ထွက်လာသော ဂွမ်းများအား အိတ်ထဲသို့ထည့်၍ ထုတ်ပိုးပါသည်။

အနီးပတ်ဝန်းကျင် အခြေအနေ

လက်ရှိပတ်ဝန်းကျင်အနေအထားကို အကဲဖြတ်ရန် ဩဂုတ်လ၊ ၉ ရက်၊ ၂၀၂၃ခုနှစ် တွင် စက်ရုံသို့ ကွင်းဆင်းဆောင်ရွက်ခဲ့ပါသည်။ စီမံကိန်းဆိုင်ရာ အခြေခံစစ်တမ်းများ ကောက်ယူမှုကို စီမံကိန်း လည်ပတ်စဉ်အတွင်းတွင် ဆောင်ရွက်ခဲ့ပါသည်။ စစ်တမ်းကောက်ယူသည့် အဖွဲ့တွင် အကြံပေးပုဂ္ဂိုလ်များ၊ ပတ်ဝန်းကျင်အရည်အသွေး ဆန်းစစ်သူများ ပါဝင်ပါသည်။ အခြေခံ ပတ်ဝန်းကျင်ဆိုင်ရာ စစ်တမ်းများကောက်ယူမှုကို အောက်ပါအတိုင်းခွဲခြား၍ ကောက်ယူခဲ့ပါသည်။ စက်ရုံ၏ ကုန်ထုတ်လုပ်သည့်နေရာတွင် လေထုအရေအသွေး၊ အသံဆူညံမှု၊ အလင်းရောင်ရရှိမှု အခြေအနေများကို တိုင်းတာခဲ့ပါသည်။

အမျိုးအစား	**တိုင်းတာမှု**
လေအရည်အသွေး	(1) Sulfur dioxide (SO2), (2) Carbon monoxide (CO), (3) Nitrogen dioxide (NO2), (4) Ozone (O3), (5) PM10 and PM2.5
ဆူညံမှု	စက်ရုံတွင်း ဆူညံသံ (LAeq)
အလင်းရောင်ရရှိမှု	အလင်းရောင်ရရှိမှု အခြေအနေ (Lux)
ဘွိုင်လာခေါင်းတိုင်မှ အခိုးအငွေ့ထုတ်လွှတ်မှု	(1) Carbon dioxide (CO_2), (2) Sulfur dioxide (SO_2), (3) Nitrogen dioxide (NO_2), (4) Carbon monoxide (CO)
မြေအောက်ရေ အရည်အသွေး	pH, Turbidity, Total Solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese, Zinc

တိုင်းတာမှု ရလဒ်များအရ Sulfur dioxide (SO2), Carbon dioxide (CO2), Nitrogen dioxide (NO2), Ozone (O3), PM10 နှင့် PM 2.5 သည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ၏ သတ်မှတ် စံချိန်၊ စံညွှန်းများအောက်တွင်ရှိသည်ကို တွေ့ရှိရပါသည်။ ကုန်ထုတ်လုပ်မှု ဇရိယာရှိ အသံဆူညံမှုသည်လည်း အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ လမ်းညွှန်ချက်များ၏ သတ်မှတ် စံချိန်၊ စံညွှန်းများအောက်တွင်ရှိသည်ကို တွေ့ရှိရပါသည်။ လုပ်ငန်းခွင်အတွင်းအလင်းရောင်ရရှိမှု အခြေအနေသည်လည်း ကောင်းမွန်သည့်အနေအထားရှိသည်ကို တွေ့ရှိခဲ့ရပါသည်။ ထို့အပြင် ဘွိုင်လာခေါင်းတိုင်မှ အခိုးအငွေ့ထုတ်လွှတ်မှု တိုင်းတာစစ်ဆေးရာတွင် လုပ်ငန်းခွင်ဘေးအန္တရယ်ကင်းရှင်းရေးနှင့်ကျန်းမာရေးစီမံခန့်ခွဲမှု၏ လမ်းညွှန်ချက်များအတွင်း ရှိနေသလို စက်ရုံ၏ အဝိစိတွင်းမှထွက်ရှိသည့်ရေအား တိုင်းတာစစ်ဆေးရာတွင်လည်း ကမ/ဉ့ကျန်းမာရေး အဖွဲ့၏ သတ်မှတ်ချက်အတွင်း ရှိနေသည်ကို တွေ့ရှိခဲ့ရပါသည်။

လူမှုစီးပွားအခြေအနေ၊ ရုပ်ပတ်ဝန်းကျင်နှင့် ဇီဝပတ်ဝန်းကျင်ဆိုင်ရာ အချက်အလက်များ၊ ရာသီဥတုအခြေအနေစသည့် လိုင်သာယာမြို့နယ်ဆိုင်ရာ အစိုးရဌာနမှ တင်ပြထားသည့် အချက်အလက်များမှ ရယူ၍ ထည့်သွင်းထားပါသည်။ အဆိုပြုစီမံကိန်းမြေသည် စက်မှုဇုန်ဇရိယာအတွင်းတွင်တည်ရှိပါသည်။ ၂၀၁၉ခုနှစ် စစ်တမ်းအရ လိုင်သာယာမြို့နယ်၏ လူဦးရေမှာ ၄၄၀၉၄၉ ဖြစ်ပါသည်။

ပတ်ဝန်းကျင်ထိခိုက်မှုနှင့် လျော့ချရေး အစီအစဉ်

စီမံကိန်းဆောင်ရွက်ချက်များကြောင့် ပတ်ဝန်းကျင်ဆိုင်ရာအရင်းအမြစ်များ၊ ဂေဟဆိုင်ရာ အရင်းအမြစ်များ၊ လူ့စွမ်းအားအရင်းအမြစ်များနှင့် စွန့်ပစ်ပစ္စည်းများစွန့်ပစ်ခြင်း စသည့်ဖြစ်လာနိုင်သည့်ထိခိုက်မှုများကို ခွဲခြားသတ်မှတ်ပြီး ၎င်းတို့၏ ရလဒ်များကို ထိခိုက်မှုဆန်းစစ်သည့် နည်းလမ်းများကို အသုံးပြု၍ သတ်မှတ်ခဲ့ပါသည်။ စီမံကိန်းအား ထိခိုက်မှုများကို အပိုင်းသုံးပိုင်းခွဲ၍ သတ်မှတ်ထားသည်။ အမျိုးအစားမှာ တည်ဆောက်သည့်ကာလ၊ လုပ်ငန်းလည်ပတ်သည့်ကာလ နှင့် လုပ်ငန်းဖျက်သိမ်းသည့်ကာလများ ဖြစ်ပါသည်။ ပတ်ဝန်းကျင်ထိခိုက်မှု လျော့ပါးစေရေး နည်းလမ်းများကိုလဲထည့်သွင်းဖော်ပြထားပါသည်။

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့်	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
တည်ဆောက်ရေးကာလ။ ။ပတ်ဝန်းကျင်ထိခိုက်မှုလေ့လာချိန်တွင် စက်ရုံတည်ဆောက်ပြီး လုပ်ငန်းလည်ပတ်နေချိန်ဖြစ်သောကြောင့် ဤကာလကိုထည့်သွင်း မစဉ်းစားတော့ပါ။			
လုပ်ငန်းလည်ပတ်ခြင်းကာလ			
လေထုညစ်ညမ်းမှု	• သယ်ယူပို့ဆောင်ရေးသုံး မော်တော်ယာဉ်တို့ကြောင့် ဖုန်မှုန့် ဖန်လုံအိမ်ခါတ်ငွေ့ထွက်ခြင်း • လုပ်ငန်းခွင်အတွင်းဖုန်မှုထွက်ခြင်း • မီးဖိုနှင့် ရေနွေးငွေ့ဘွိုင်လာတို့မှ မီးခိုးထွက်ခြင်း • အရေးပေါ်သုံးမီးစက်မှာ စွန့်ထုတ်အခိုးအငွေ့ ထွက်ခြင်း	အနည်းငယ်	• ဘွိုင်လာနှင့်မီးစက် တို့တွင် မီးခိုးခေါင်းတိုင် တပ်ဆင်ခြင်းဖြင့် အခိုးအ ငွေ့ကြောင့် ပတ်ဝန်းကျင် ထိခိုက်မှုကို လျော့ချခြင်း၊ • စက်ရုံအတွင်းနှင့် အနီး အနားတွင် သစ်ပင်ပန်းမံ စိုက်ပျိုးခြင်းဖြင့် carbon ထွက်ရှိမှုကို လျော့ချပေးခြင်း၊ • NOx ထွက်ရှိမှုနည်းသော နည်းပညာမြင့် စက်ပစ္စည်း များသုံးခြင်း၊ • စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း။
ရေ	• မိလ္လာစွန့်ထုတ်ရေ • စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှဆီယိုဖိတ်ကြ ခင်း	အနည်းငယ်	• စက်ရုံအတွင်း ရေနုတ်မြောင်းများ ထားရှိခြင်း၊ • လက်ရှိရေဆိုးစွန့်ပစ်မှုပုံစံဖြစ်သော မိလ္လာစနစ်ကို ပုံမှန်စစ်ဆေးပေးခြင်း၊ • မိလ္လာကန်နှင့် မိလ္လာ စနစ်ကို လူဦးရေနှင့် သင့်တင့်သည့် ပမာဏ ရှိရန် စီစဉ်ထားခြင်း၊

ပတ်ဝန်းကျင်လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့်	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
			• ပုံမှန်သန့်ရှင်းရေးပြုလုပ်ပေးခြင်း။
မြေဆီလွှာညစ်ညမ်းမှု	• မတော်တစ စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှ ဆီယိုဖိတ်ခြင်း	အလွန်နည်း	• စက်ဆီများကိုအသုံးပြုရာတွင် ဖိတ်စင်မှု မရှိစေရန် စနစ်တကျကိုင်တွယ်အသုံးပြု ခြင်း၊ • မတော်တဆယိုဖိတ်ပါက ယိုဖိတ်သည့် နေရာအား ချက်ချင်းသန့်ရှင်းမှုပြုလုပ်ခြင်း၊ • ဆီသိုလှောင်သည့်နေရာအား ကွန်ကရစ်များခင်းထားခြင်း။
ဆူညံသံ	• ဘွိုင်လာ၊ မီးစက်၊ လေမှုတ်စက်၊ လုပ်ငန်းသုံးစက်ကိရိယာများနှင့် မော်တော်ယာဉ် အသုံးပြုမှုကြောင့် ပတ်ဝန်းကျင် ဆူညံမှု	အနည်းငယ်	• ဆူညံသံထွက်သောနေရာများကို အကာအကွယ် ဖြင့်ထားရှိခြင်း • ဆူညံသံအထွက်နည်းသည့် စက်ပစ္စည်း များကို အသုံးပြုခြင်း။
မီးဘေးအန္တရာယ်	• လျှပ်စစ်သွယ်တန်းအသုံးပြုမှု အားနည်းခြင်း • စွန့်ပစ်ပစ္စည်းများအား ယာယီသိုလှောင်ထားရှိခြင်း • ကုန်ကြမ်းသိုလှောင်မှု	အသင့်တင့်	• ကုန်ကြမ်းများအား သီးသန့်ထားရှိခြင်း • လျှပ်စစ်သုံးစွဲမှုများအား စနစ်တကျ အသုံးပြုစေခြင်း • ဝန်ထမ်းများအား သင်တန်းများပေးခြင်း
လုပ်ငန်းခွင် ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေး	• စက်ပစ္စည်းများကိုင်တွယ်အသုံးပြုရာမှ မတော်တဆထိခိုက်ခြင်း • အရေးပေါ်မီးစက်များနှင့် စက်ကို ရိယာများမှ ဆူညံသံများ ထွက်ရှိ ခြင်း • ဂျင်နရေတာလည်ပတ်ရာမှ ထွက်ရှိလာသော မီးခိုးငွေ့များ	အသင့်အတင့်	• အရေးပေါ်သူနာပြုသင်တန်းများ အန္တရာယ်ကင်းရှင်းရေးသင်တန်းများ၀ မီးဘေးအန္တရာယ်ကာကွယ်ရေး သင်တန်းများနှင့်စက်ပစ္စည်းစနစ်တကျ ကိုင်တွယ်အသုံးပြုနိုင်ရေးသင်တန်းများအား ဝန်ထမ်းများအား သင်တန်းပေးခြင်း၊ • လုပ်ငန်းခွင်အတွင်း အမြင်အာရုံ ရှင်းလင်းနိုင်စေရန်နှင့် အန္တရာယ်ကင်းစွာ စက်ပစ္စည်းများအား အသုံးပြုနိုင်ရန် လုံလောက်သော အလင်းရောင် ရရှိရန် ဆောင်ရွက်ပေးထားခြင်း • လျှပ်စစ်ဓာတ်လိုက်ခြင်းများ မဖြစ်ပေါ်စေရန် စက်ပစ္စည်းများအား ပုံမှန်စစ်ဆေးခြင်းနှင့် ကာကွယ်ရေးနည်းလမ်းများ ထားရှိပေးခြင်း၊

ပတ်ဝန်းကျင်လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့်	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
			• စက်ရုံမှ အလုပ်သမားများအတွက် တစ်ကိုယ်ရေသုံး ကာကွယ်ရေးပစ္စည်းများ ဝတ်ဆင်ပြီးမှသာ လုပ်ငန်းလုပ်ဆောင်စေခြင်း၊ စက်ရုံအား အလုပ်သမားအရေအတွက်၊ စက်ပစ္စည်းအရေအတွက်နှင့် ကိုက်ညီမှုရှိအောင် တည်ဆောက်ထားခြင်း၊ • စက်ရုံရှိ အလုပ်သမားများအတွက် အလုပ်ချိန် (၈)နာရီအတွင်း သင့်တော်သော ဆူညံသံထွက်ရှိမှု ပမာဏမှာ ၇၀ dBA ဖြစ်ပါသည်၊ စက်ရုံမှ ဆူညံသံထွက်ရှိမှုများသော စက်ကိရိယာများနှင့် လုပ်ငန်းလုပ်ဆောင်ရသော အလုပ်သမားများအား နားကြပ်များ၊ ဆူညံသံကာကွယ်ရေးပစ္စည်းများ ထားရှိ ပေးခြင်း။
စွန့်ပစ်အမှိုက်	• ထုတ်လုပ်ရာတွင် ကျန်ရှိသော ဂွမ်းများ • ကော်ပုံးခွံများ • ထုတ်ပိုးခြင်းအဆင့်မှထွက်ရှိသော စွန့်ပစ်အမှိုက်များ • မီးဖိုချောင်နှင့် ရုံးတွင်းစွန့်ပစ်ပစ္စည်းများ	အနည်းငယ်	• စွန့်ပစ်အမှိုက်များအား ပြန်လည်သုံးစွဲရန် နှင့် စွန့်ပစ်ရန် အဖြစ်သတ်မှတ်ပီး သီးခြားစွန့်ပစ်စေခြင်း
စွန့်ပစ်အရည်	• နေအိမ်၊ စားသောက်ဆောင်တို့မှစွန့်ထုပ်ရေ။ မိလ္လာကန်စနစ်	အနည်းငယ်	• စွန့်ပစ်အရည်များအား ပြန်လည်သုံးစွဲရန်(ရေသန့်စင်ခြင်း) နှင့် စွန့်ပစ်ရန် အဖြစ်သတ်မှတ်ပီး သီးခြားစွန့်ပစ်စေခြင်း
အန္တရာယ်ရှိအမှိုက်	• စက်များမှ ဆီယိုစိမ့်မှုများ၊ မော်တော်ယာဉ်များပြုပြုထိမ်းသိမ်းမှုက ထွက်ရှိသည့်အမှိုက်များ	အနည်းငယ်	• စက်သုံးဆီများအားစနစ်တကျ အသုံးပြုစေခြင်း၊ စနစ်တကျသိုလှောင်ခြင်း နှင့် အန္တရာယ်ရှိပစ္စည်းများအား စနစ်တကျထားရှိစေခြင်း
လူမှုစီးပွားအခြေအနေ	• ဒေသခံများအတွက် အလုပ်အကိုင် အခွင့်အလမ်းများ ရရှိစေခြင်း	ကောင်းမွန်သော သက်ရောက်မှု	
လုပ်ငန်းပိတ်သိမ်းခြင်းကာလ			

ပတ်ဝန်းကျင်လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့်	လျော့ချရေးနှင့် ထိန်းချုပ်မှု
လေထုညစ်ညမ်းမှု	• အဆောက်အဦးများ ဖြိုချမှုများ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ	အနည်းငယ်	• NOx ထွက်ရှိမှုနည်းသော နည်းပညာမြင့် စက်ပစ္စည်း များသုံးခြင်း၊ • စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း။
ရေ	• ဖြိုချပစ္စည်းများနှင့် မိလ္လာဖျက်ဆီးမှုများ	အနည်းငယ်	• ပုံမှန်သန့်ရှင်းရေးပြုလုပ်ပေးခြင်း။ • စက်ပစ္စည်းများကို ပုံမှန်ပြုပြင်ထိန်းသိမ်းပေးခြင်း။
မြေဆီလွှာညစ်ညမ်းမှု	• အဆောက်အဦးနှင့် ဆက်စပ်ပစ္စည်းများ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ	အနည်းငယ်	• မတော်တစမှု မဖြစ်စေရန် ထိန်းသိမ်းခြင်း။
ဆူညံသံ	• အဆောက်အဦးများဖြိုချဖျက်ဆီး ခြင်း • သယ်ယူပို့ဆောင်ရေးယာဉ်များ	အနည်းငယ်	• လုပ်ငန်းများအား နေ့ဘက်တွင်သာ လုပ်ဆောင်ခြင်း • ဆူညံသံလျော့နည်းစေရန် စက်များအား ထိန်းသိမ်းပြုပြင်ခြင်း • အလုပ်သမားများအား တကိုယ်ရေသုံး ကာကွယ်ရေးပစ္စည်းများဝတ်ဆင်၍ လုပ်ဆောင်စေခြင်း။
အမှိုက်စွန့်ပစ်မှု	• အဆောက်အဦးများ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ	အလွန်နည်း	• စွန့်ပစ်အမှိုက်များအား ပြန်လည်သုံးစွဲရန် နှင့် စွန့်ပစ်ရန် အဖြစ်သတ်မှတ်ပီး သီးခြားစွန့်ပစ်စေခြင်း
အန္တရာယ်ရှိအမှိုက်	• စက်များမှ ဆီယိုစိမ့်မှုများ၊ မော်တော်ယာဉ်များပြုပြင်ထိမ်းသိမ်းမှုက ထွက်ရှိသည့်အမှိုက်များ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ	အလွန်နည်း	• စက်သုံးဆီများအားစနစ်တကျ အသုံးပြုစေခြင်း၊ စနစ်တကျသိုလှောင်ခြင်း နှင့် အန္တရာယ်ရှိပစ္စည်းများအား စနစ်တကျထားရှိစေခြင်း
မတော်တဆ ထိခိုက်မှုများ	• အဆောက်အဦးများ ဖြိုချမှုများ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ	အနည်းငယ်	• မတော်တစမှု မဖြစ်စေရန် ထိန်းသိမ်းခြင်း။

ပတ်ဝန်းကျင်ဆိုင်ရာဆန်းစစ်လေ့လာချက်များအရ လုပ်ငန်းလည်ပတ်ချိန်ကာလတွင် ထိခိုက်မှုအဆင့် အသင့်အတင့်သည် ၂ ခု (မီးဘေးအန္တရာယ်နှင့် လုပ်ငန်းခွင်အန္တရာယ်)၊ အလွန်နည်း အဆင့်သည် ၁ ခု(မြေဆီလွှာ) နှင့် အနည်းငယ်အဆင့် သည် ၆ ခု (လေ၊ ရေ၊ ဆူညံသံ၊ စွန့်ပစ်အရည်၊ စွန့်ပစ်အစိုင်အခဲ နှင့် အန္တရာယ်ရှိ စွန့်ပစ်ပစ္စည်း)တို့ဖြစ်ပါသည်။ စီမံကိန်းပိတ်သိမ်းချိန်တွင် ထိခိုက်မှုအဆင့် အလွန်နည်းအဆင့်သည် ၂ ခု (စွန့်ပစ်အမှိုက်နှင့် အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်း)၊ အနည်းငယ်အဆင့်သည် ၅ ခု (လေ၊ ရေ၊ မြေဆီလွှာ၊ ဆူညံသံနှင့် မတော်တဆထိခိုက်မှုများ) တို့ဖြစ်ပါသည်။

ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်

အဆိုပြုလုပ်ငန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် Plan-Do-Check-Act (P D C A) စက်ဝိုင်းဖြင့် အစီစဉ်တကျ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။ အစီအစဉ်တွင် စက်ရုံကြောင့် ဖြစ်ပေါ်စေနိုင်သော ပတ်ဝန်းကျင်နှင့် လူမှုဘဝအပေါ် ဆိုးကျိုးသက်ရောက်မှုများကို လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစရှိသည့် အစီအစဉ်များ ပါဝင်ပါသည်။ ၄င်း EMP အစီအစဉ်များကို အကောင်အထည်ဖော်ရန်အတွက် သည် စက်ရုံတွင် ကျန်းမားရေး၊ ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာ အဖွဲ့အစည်းတစ်ခုထားရှိပြီး လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်များကို အကောင်အထည်ဖော်သွားမည်ဖြစ်ပါသည်။ အဆိုပါစက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ရေရှည်ဖွံ့ဖြိုးတိုးတက်ကောင်းမွန်သော ပတ်ဝန်းကျင် အဖြစ် အကောင်အထည်ဖော်ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ဆိုင်ရာ ဆိုးကျိုးသက်ရောက်မှုများကို လျော့နည်းစေရန် စီမံခန့်ခွဲမှုအစီအစဉ်များနှင့် စောင့်ကြပ်ကြည့်ရှုရမည့်အစီအစဉ်များကို အောက်ပါအတိုင်းပတ်ဝန်းကျင်ဆိုင်ရာ အကြောင်းအရာတစ်ခုချင်းစီအလိုက် ခွဲခြားမှု ပြုလုပ်ထားပါသည်။

၁။ လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်ဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

၂။ ဆူညံမှုထိန်းခြင်းဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

၃။ မီးဘေးအန္တရာယ် စီမံခန့်ခွဲမှု

၄။ လုပ်ငန်းခွင် အန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေး စောင့်ရှောက်မှု အစီအစဉ်

၅။ ရေသုံးစွဲမှု စီမံခန့်ခွဲမှုအစီအစဉ်

၆။ အမှိုက်စွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

၇။ စွန့်ပစ်အရည် စီမံခန့်ခွဲမှုအစီအစဉ်

၈။ အန္တရာယ်ရှိသော စွန့်ပစ် အမှိုက်စီမံခန့်ခွဲမှု အစီအစဉ်

၉။ စွမ်းအင် သုံးစွဲမှု အစီအစဉ်

၁၀။ အရေးပေါ်တုန့်ပြန်ရေး အစီအစဉ်

၁၁။ စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်

၁၂။ အသိပညာပေးခြင်းနှင့် သင်တန်းပို့ချမှု အစီအစဉ်

၁၃။ မကြေနပ်မှု ဖြေရှင်းခြင်း နည်းလမ်း

၁၄။ လူမှုအကျိုးတူ ပူးပေါင်းပါဝင်မှု အစီအစဉ် CSR Plan

အများပြည်သူနှင့်တိုင်ပင်ဆွေးနွေးခြင်း

အများပြည်သူနှင့်တိုင်းပင်ဆွေးနွေးခြင်းကို လိုင်သာယာစက်မှုဇုန်ကော်မတီရုံး အစည်းအဝေးခန်းမ၊ လိုသာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် ကျင်းပပြုလုပ်ခဲ့ပါသည်။ အဆိုပါအခမ်းအနားတွင် ဒေါ်ပြည့်ဖြိုးဝင်းမှ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) အစီရင်ခံစာနှင့်ပတ်သက်၍ တက်ရောက်လာသူများအား ရှင်းလင်းတင်ပြခဲ့ပါသည်။ ထို့နောက် တက်ရောက်လာသူများမှ ဆွေးနွေးအကြံပြုခြင်းများ ပြုလုပ်ခဲ့ပါသည်။ အဆိုပါအခမ်းအနားတွင် တက်ရောက်သူဦးရေ ၁၆ ဦး တက်ရောက်ဆွေးနွေးခဲ့ကြပါသည်။

နိဂုံး

နိဂုံးချုပ်အားဖြင့် ယခုစီမံကိန်းသည် ဆောက်လုပ်ရေးကာလ၊ လုပ်ငန်းလည်ပတ်သည့်ကာလနှင့် လုပ်ငန်းဖျက်သိမ်းသည့် ကာလသုံးခုလုံးတွင် ဒေသခံပြည်သူများကိုအလုပ်အကိုင် အခွင့်အလမ်းများ ဖန်တီးပေးနိုင်သည်။ ကာလသုံးခုလုံးတွင် ဖြစ်ပေါ်လာနိုင်သော ထိခိုက်မှုများကို လျော့ချနိုင်မည့် နည်းလမ်းများနှင့် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား အကောင်အထည်ဖော်ခြင်းဖြင့် လျော့ချနိုင်သည်။ ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်အား စီမံကိန်း၏ ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေးကို စောင့်ကြပ်ကြည့်ရှုရန် မဖြစ်မနေ အကောင်အထည်ဖော်ပေးရမည်။ စီမံကိန်းကောင်အထည်ဖော်သူသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှ ယခုအစီရင်ခံစာအား စစ်ဆေးပီးနောက် ပြန်လည်ပေးပို့လာသော သဘောထားမှတ်ချက်နှင့် အကြံပြုချက်များကိုလိုက်နာရမည်။ ထို့ပြင် စီမံကိန်းအကောင်အထည်ဖော်သူသည် မြန်မာနိုင်ငံ၏ ပတ်ဝန်းကျင်နှင့် သက်ဆိုင်သောမူဝါဒများ၊ ဥပဒေများ၊ နည်းဥပဒေများ၊ သတ်မှတ်ချက်များကို လိုက်နာရန်လိုအပ်ပါသည်။

EXECUTIVE SUMMARY

Introduction

Environment Management Plan is required for ensuring sustainable development. It should not affect the surrounding environment adversely. The management plan presented in this chapter needs to be implemented by the proposed expansion of Myanmar Cotton Spinning Garment Accessories Company Limited. The Environment Management Plan (EMP) aims at controlling pollution at source with available and affordable technology followed by treatment measures. Waste minimization and waste recycling measures are emphasized. In addition to the industry specific control measures, the proposed industry should adopt following guidelines.

The project is new investment for manufacturing of Gunned Cotton, Eiderdown Cotton and Honing for local CMP Garment Enterprises. The project is issued by the Yangon Region Investment Committee (YRIC) on 11 June 2020 with the Endorsement No. (YGN- 391/2020). 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 Gunned Cotton, Eiderdown Cotton and Honing for local CMP Garment Enterprises basis under the name of Myanmar Cotton Spinning Garment Accessories 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 Environmental Management Plan (EMP) to meet the environmental assessment requirements of Notification No. EIA- 1/6/Recommendation (Issue) (059/2024) on 5 January 2024. Therefore, Myanmar Cotton Spinning Garment Accessories Limited conducted EMP report study. The specific objectives of this study are

- ✓ Identify the major impacts that are may arise from the activities of the proposed project on natural environmental and socio-economic environment of the project area
- ✓ Describe the mitigation measures to minimize these impacts
- ✓ Prepare and implement Environmental Management Plan for the project
- ✓ Make sure that EMP is developed sufficiently and sound for the proposed project and
- ✓ Corporate Social Responsibility Plan (CSR Plan) plays an essential part for the improvement of the social welfare of community as well as development of the region.

The main purpose of this EMP report is to obey the rule and regulation of Local and International Environmental Protection programs and harmonize with the environmental and also describes the responsible person and his responsibility.

Policy, Legal and Institutional Framework

National Laws and Regulations, international guidelines are referred for Environmental Management Plan of the proposed project.

1. The Constitution Law, 2008

2. The Environmental Conservation Law, 2012
3. The Environmental Conservation Rule, 2014
4. Environmental Impact Assessment Procedure, 2015
5. National Environmental Quality (Emission) Guideline, 2015
6. National Myanmar Environmental Policy, 2019
7. Myanmar Investment Law, 2016
8. Myanmar Investment Rule, 2017
9. Myanmar Insurance Law, 1993
10. Payment of Wages Law, 2016
11. The Payment of Wages Act, 1936
12. Yangon City Development Committee Law, 2018
13. The Amended Law for Factories Act, 1951 (2016)
14. The Private Industrial Enterprise Law
15. The Export and Import Law, 2012
16. The Prevention of Hazard from Chemical and Related Substances Law, 2013
17. The Underground Water Act
18. Myanmar Fire Brigade Law, 2015
19. Fire Safety Procedure
20. The Electricity Law, 2014
21. Boiler Law, 2015
22. Labor Dispute Settlement Law, 2012
23. The Law Amending the Settlement of Labor Dispute Law, 2019
24. The Social Security Law, 2012
25. The Employment and Skill Development, 2013
26. The Worker's Compensation Act, 1923
27. The Leave and Holidays Act (1951, partially reused in 2014)
28. The Minimum Wage Law, 2013
29. Public Health Law, 1972
30. Prevention and Control of Communicable Disease Law (1995 Amendment in 2011)
31. Occupational Safety and Health Law, 2019
32. The Law on Standardization
33. လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများဆိုင်ရာ ဥပဒေ၊ (2018)

34. The Motor Vehicles Law, 2015

35. The Conservation of Water Resources and River Law, 2006

36. The Commercial Tax Law (1990 Amended 2014)

And occupational health and safety guideline is referenced from International Finance Corporation (IFC) guidelines. Myanmar Cotton Spinning Garment Accessories Company Limited is commitment and complied for environmental prevention and EMP.

Project Description

Information of Investor

Investor Name:	Mr. Miao Guangyu
ID No.:	EH0322961
Citizenship:	Chinese
Address of Registration office:	No.6, Group 318, Litown, Jiangsu Province, Jinhu Country, The People's Republic of China.

List of Shareholders Owned 10 % of the Shares and Above

No.	Name of Shareholders	Citizenship	Share Percentage
1	Mr. Miao Guangyu	Chinese	70%
2	Mr. Zhao Weiqing	Chinese	30%

Salient features of the project

Type of Proposed Business	Manufacturing of Gunned Cotton, Eiderdown Cotton and Honing for Local CMP Garment Enterprises
Type of investment	100% foreign investment
Type of Share	Ordinary Share
Type of land	Industrial Land
Total land area	1.003 acres (4059 sqm)
Total building area	(183′ x 145′) one story building, (35′ x 40′) two story building
Investment period	20 years
Construction period	1 year
Operation starting date	28.7.2020
Address	Plot No. (93/A), Corner of Mya aung Wun U Hmo St. and Min Theiddhi Kyaw Swar St., Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Towship, Yangon Region, Myanmar.
Contact person	Hayman Nway 09 422496373

The main Raw Materials are Chemical Fiber Material, Glue, Plastic Bag, Printing ink, Solvent, Thread, Interlining, Elastic Fabric, Bopp, Tape. The required raw materials will be imported from China and Thailand. Annual production rate of the Gunned Cotton product is 1,800 to 2,100 Ton, the Eiderdown Cotton product is 360 to 600 Ton, and the Honing product is 1,080,000 to 1,100,000 Meter between first

year of operation and ten years of operation. The current number of workers are 36 persons. Water for the factory is obtained from the two tube wells installed inside the factory compound. As an electricity supply, it gets from Yangon City Electricity Supply Board (YESB), and another sources of energy 480 kVA and 40 kVA generators which also be kept as the emergency generator if normal electricity supply could not provide for the proposed project. For liquid waste, the factory uses separate wastewater channels, septic type toilet system. Solid waste (recycle waste) such as empty glue containers are hand over to local buyer and cotton fibers are 100 percent reused in production. Other solid waste from the whole factory (such as from human, kitchen, packing) will be disposed by using YCDC's service.

The proposed project includes three production process, they are Honing process, Eiderdown Cotton process and Gunned Cotton process. In the production process of Honing, the cotton rolls that will be sewn together with the fabric are placed. Then the fabric and cotton are sewn together. After sewing, the quilts are sent to the quality control section and packed.

In the production process of Eiderdown Cotton, 5 or 7 raw materials are put into the machine and mixed together. Then the mixed raw materials are ground by the machine rollers. After that, a mixture of water and glue is sprayed onto the crushed cotton. In the final step, the cotton rolls sprayed with water and glue are slightly heated with rolling machine and packed.

In the production process of Gunned Cotton, one or two raw materials are mixed and put into the machine and they are crushed. The crushed cotton is put into the bag and packed.

Brief Description of Surrounding Environment

To determine the existing baseline environmental quality within the project site on 9 August 2023. The field observation for determining the environmental baseline of the proposed project area was undertaken during operation period. The survey team consists of the senior consultant and environmental quality team. The baseline data collected regarding the environmental condition of the project area was conducted in the following section. On-site measurement includes indoor air quality, noise level and operation light condition at the factory.

Item	Parameter
Indoor Air quality	(1) Sulfur dioxide (SO_2), (2) Carbon dioxide (CO_2), (3) Nitrogen dioxide (NO_2), (4) Ozone (O_3), (5) PM10 and PM2.5
Outdoor Air quality	(1) Sulfur dioxide (SO_2), (2) Carbon dioxide (CO_2), (3) Nitrogen dioxide (NO_2), (4) Ozone (O_3), (5) PM10 and PM2.5
Noise level	Indoor sound level (LAeq)
Light Level	Industry light condition (Lux)
Boiler Stack Emission	(1) Carbon dioxide (CO_2), (2) Sulfur dioxide (SO_2), (3) Nitrogen dioxide (NO_2), (4) Carbon monoxide (CO),
Ground Water Quality	pH, Turbidity, Total Solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese, Zinc

The contents of O_3, CO_2 and SO_2 concentration level are within the limit of NEQ (emission) guideline but particulate matter (PM_{10} & $PM_{2.5}$) and gases level of Nitrogen Dioxide (NO_2) 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. In

addition, the results of boiler stack emission are within the Occupational Safety and Health Administration Guideline, and the ground water quality results are within the limit of the WHO Drinking Water Guideline.

Secondary data collection of proposed project site area such as socio-economic condition, physical/ biological environment, weather data where be received from official township data was reference by Regional Data of Hlaing Thar Yar Township. The proposed project site is initiated into the industrial zone area. In 2019, the population of Hlaing Thar Yar Township 440,949 peoples.

Potential Environmental Impact and Mitigation Measure

Possible effects, such as impacts on environmental resources, ecological resources, human and waste disposal due to construction, operation and decommissioning processes. Potential impacts for the proposed projects are normally differentiated into three main categories, viz, Construction phase, Operation phase and Decommissioning phase.

The relative importance of each impact is assessed based on the understanding that general mitigation measures will be integrated into the baseline project. Therefore, when the general mitigation measures reduce impacts to the point of rendering them negligible, they are excluded from further analysis. Once the significance of the impact is established as more than negligible, it is described and additional, specific mitigation measures may be proposed to allow optimal integration of the project into the environment.

Evaluation and Perdition of Significant Impacts

Environmental Impact	Project Activities	Impact Significance	Mitigation Measure
Construction Phase; It is not assessed in this phase, because of construction is already completed during EMP preparation.			
Operation Phase			
Air Pollution	• Dust and GHGs emission from vehicles used for transporting raw materials and final products • Particulate matters emission from the activities of production process • Emission from emergency diesel generator	Low	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.
Water Pollution	• Sewage disposed of from the toilets • Oil spill and grease leaks from transporting vehicles and machinery equipment used in operation phase	Low	Use separate wastewater channels, septic type toilet system. The drainages around the compound area of the factory have to maintain and clean regularly.
Soil Contamination	• Accidental spillage of oil used by vehicles operating	Very Low	Proper handling and use to prevent oil spillage. If there is an oil spill, clean up the area immediately. Concrete paving where oil storage tanks are placed.

Environmental Impact	Project Activities	Impact Significance	Mitigation Measure
Noise and Vibration	• Generating noise from the production machinery • Noise from the generating of the emergency generators	Low	Use modernized low-noise machines. Generators are placed in a separate building with soundproof enclosures within the factory area.
Fire Hazard	• Poor electrical installations • waste disposed area • Raw materials storage	Moderate	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 Health and Safety	• Accidental cases cause by operating machines. • Electricity and emergency diesel generators. • Unloading, mixing, cutting, pressing and packaging activities. • Accidental cases of thermic fluid heater	Moderate	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 mask, earmuffs, helmets and goggles are provided for each department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures. Manage the drainage systems of the factory to prevent health risk of the workers.

Environmental Impact	Project Activities	Impact Significance	Mitigation Measure
			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 cotton fabric from the production lines • empty glue containers • Waste from packaging materials • Waste office	Low	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 or licensed waste collection sevice.
Liquid Waste	• Septic system and sewage. • Domestic liquid waste disposal from office	Low	Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous Waste	• Engine oil leaks, spills at diesel storage and during fuel refueling. • Used oil and lubricant discharged from the maintenance of vehicles and machines.	Low	Proper inspection and maintenance in storage of hazardous waste. Dispose of hazardous waste and containers in accordance with occupational health, safety and environmental requirements. The empty hazardous 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.
Socio-economic Condition	• Job opportunities for local people	-	Positive Impact
Decommissioning Phase			
Air pollution	• Demolish of buildings and related materials • Transportation of demolished materials	Low	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.

Environmental Impact	Project Activities	Impact Significance	Mitigation Measure
Water pollution	• Sewage form decommissioning workers • Demolition machinery equipment	Low	Systematically demolish the septic tanks.
Soil Contamination	• Demolish of buildings and related materials • Transportation of demolished materials	Low	Manage the spillage of oil and diesel and sewage.
Noise Pollution and Vibration	• Decommission activities • Transportation of demolished materials	Low	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	Very Low	Recyclable materials and dispose to the define areas.
Hazardous waste	• Used lubricants from decommissioning vehicles and machines	Very Low	Manage the disposal way of hazardous waste.
Occupational Health and Safety (Accidents, Injuries)	• Decommissioning activities • Transportation of demolished materials	Low	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.

According to the result of analysis, in operation phase, there are 2 moderate significance impact on environment and human (Fire and occupational health and safety), 1 very low significant impact on environment and human (soil), 6 low significant impact on environment and human (air, water, noise and vibration, solid, liquid waste 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).

Environment Management Program

The proposed project of environmental management plan, which need to made the PDCA plan especially Plan-Do-Check-Act cycle. In that plan, it includes not only reducing to the environmental and social-economic impact but also includes the environmental management plan and the monitoring plan. In this EMP to implement the health, safety and occupational for the industry, they need to create a team and to must be implemented that. The EMP for Myanmar Cotton Spinning Garment Accessories

Company Limited 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 plans based upon the potential impacts of activities by for Myanmar Cotton Spinning Garment Accessories factory are as follows:

1. Air pollution/Dust Management plan
2. Noise Management Plan
3. Fire Management Plan
4. Occupational Safety and Health Management Plan
5. Water Consumption Management Plan
6. Solid Waste Management plan
7. Liquid Waste Management Plan
8. Hazardous Waste Management Plan
9. Energy Management Plan
10. Emergency Response and Management plan
11. Environmental Monitoring Schedule and Reporting
12. Capacity Building and Training Plan
13. Grievance Redress Mechanism
14. Corporate Social Responsible (CSR) Plan

Public Consultation Meeting

The Public Consultation was held at Meeting Room, Industrial Zone Committee Office, Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Township, Yangon Region on 24 January 2024. Daw Pyae Phyo Win presented the EMP study and findings. After the presentation on the project, followed by questions, answers and discussion. There were 16 participants at the meeting.

Conclusion & Recommendation

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

1. INTRODUCTION

Everyone wants to live in a place that's clean and healthy. That is why one of the world's primary concerns is the environment. As sad as it is, the world today is dying. The environment is slowly decaying, and it's all because of human negligence 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 Myanmar Cotton Spinning Garment Accessories Co., Ltd. The Environment Management Plan (EMP) aims at controlling pollution at source with available and affordable technology followed by treatment measures. Waste minimization and waste recycling measures are emphasized. In addition to the industry specific control measures, the proposed industry should adopt following guidelines.

1.1. AIM OF ENVIRONMENTAL MANAGEMENT PLAN

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

1.2. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

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

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

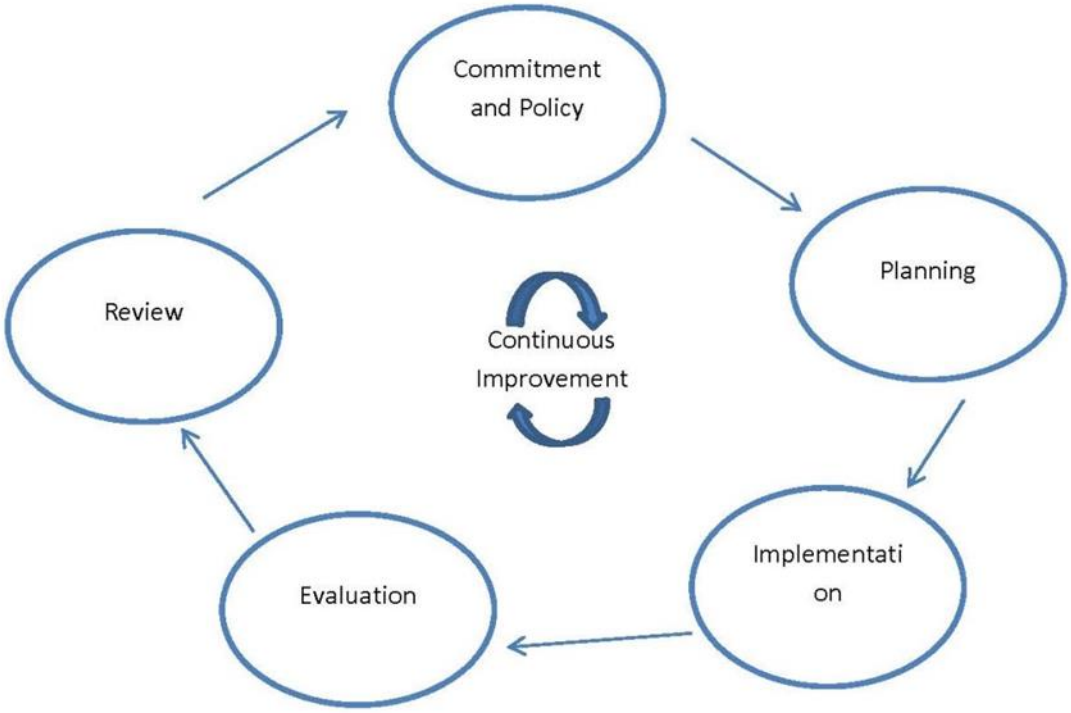

Figure 1-1 Continuous Improvement Circle

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

organization's values. The plan is then revised to optimize the effectiveness of the EMS. The review stage creates a loop of continuous improvement for a company.

1.2.1. Institutional Requirement

Myanmar Cotton Spinning Garment Accessories Co., Ltd. will manage the development of the proposed project. The project proponent should appoint Health, Safety and Environment (HSE) issues throughout the duration of the project phases. HSE team is responsible for implementation and monitoring of EMP and Environmental Monitoring Plan (EMP) as well as coordination with local authorities and the nearby communities. The HSE Team also makes regular review of EMP to cover all potential impacts, amendments and modifications.

1.2.2. Responsibilities of the EMP

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

Myanmar Cotton Spinning Garment Accessories Co., Ltd.: 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 Myanmar Cotton Spinning Garment Accessories Co., Ltd. for EMP implementation facilities.

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

Third-Party Environmental Consultant: The environmental consultant will have to ensure that the proposed EMP is up to date and is being followed properly by the proponent. Periodic audits of the EMP will have to be done to ensure that its performance is as expected, by comparing with operating standards so that any corrective actions can be taken.

1.2.3. Structure and Responsibilities for the EMP Development and Implementation

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

- Ensure a monitoring system is in place to track and report all health, safety and environmental incidents;
- Carry out a thorough initial site inspection of environmental controls prior to work commencement;

- Record and provide a written report to the General Manager and production team of non-conformances with the EMP and require the HR supervisor to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

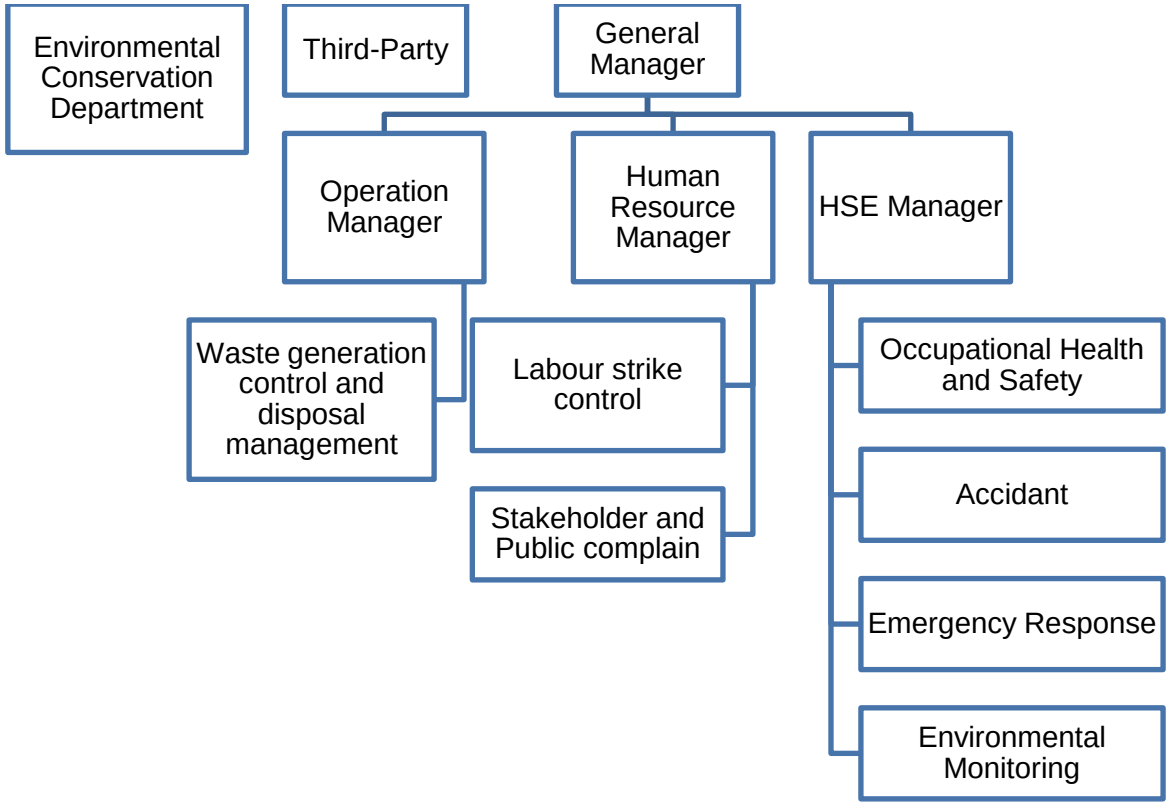

Figure 1-2 Organization Structure of Environmental Management Plan

1.3. PROJECT BACKGROUND

The project is an investment company for manufacturing of Gunned Cotton, Eiderdown Cotton & Honing to sell to local CMP Garment Industry. The Yangon Region Investment Committee (YRIC) issues the project on 11 June 2020 with the Endorsement No. (YGN- 391/2020). 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 Gunned Cotton, Eiderdown Cotton & Honing to sell to local CMP Garment Industry under the name of Myanmar Cotton Spinning Garment Accessories Company Limited.

According to the Myanmar Environmental Conservation Law (2012), it requires that the proponents of every development project in the country submit either an Initial Environmental Examination (IEE) or an Environmental Impact Assessment (EIA) to Ministry of Natural Resources and Environmental Conservation (MONREC). As per the comments of Environmental Conservation Department (ECD), said project requires an Environmental Management Plan (EMP) to meet the environmental assessment requirements of Notification No. EIA- 1/6/Recommendation (Issue) (059/2024) on 5 January 2024.

1.3.1. Project Proponent Profile

This is the information of project proponent from the YRIC's registration that is describing in below Table 1-1, Table 1-2 and Table 1-3.

Table 1-1 Information of Investor

Investor Name:	Mr. Miao Guangyu
ID No.:	EH0322961
Citizenship:	Chinese
Address of Registration office:	No.6, Group 318, Litown, Jiangsu Province, Jinhu Country, The People's Republic of China.

Table 1-2 List of Shareholders Owned 10 % of the Shares and Above

No.	Name of Shareholders	Citizenship	Share Percentage
1	Mr. Miao Guangyu	Chinese	70%
2	Mr. Zhao Weiqing	Chinese	30%

1.3.2. Investment Plan and Salient Features of the Project

The estimated authorized capital investment is 1.500 million US Dollar (Table 1-3). Organization chart of Myanmar Cotton Spinning Garment Accessories Company Limited is presented in Figure 1-3.

Table 1-3 Salient features of the project

Type of Proposed Business	Manufacturing of Gunned Cotton, Eiderdown Cotton and Honing for Local CMP Garment Enterprises
Type of investment	100% foreign investment
Type of Share	Ordinary Share
Type of land	Industrial Land
Total land area	1.003 acres (4059 sqm)
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Investment period	20 years
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Operation starting date	28.7.2020
Address	Plot No. (93/A), Corner of Mya aung Wun U Hmo St. and Min Theiddhi Kyaw Swar St., Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Towship, Yangon Region, Myanmar.
Contact person	Hayman Nway 09 422496373

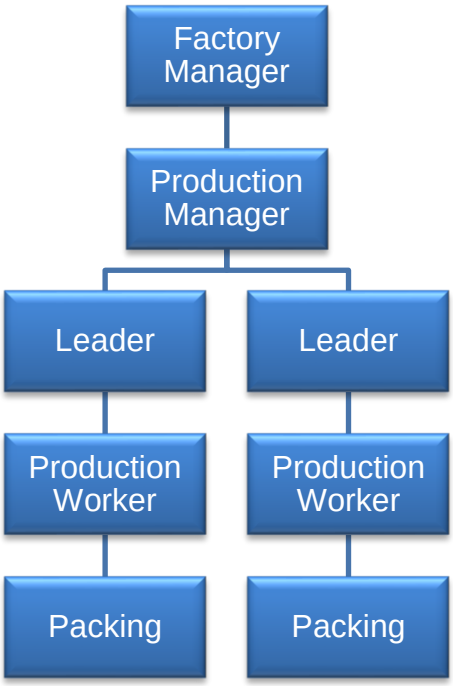


Figure 1-3 Organization chart of Myanmar Cotton Spinning Garment Accessories Company Limited

1.4. EMP STUDY TEAM

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. Member of EMP study teams is shown in

Table 1-4 Member of EMP Study Team

Name	License Number	Expert area	Responsibility
Lin Htet Sein	EIA-AC 053/2023	အထွေထွေပတ်ဝန်းကျင်စီမံခန့်ခွဲခြင်း	Team Leader Environmental Management Program
Dr. Hein Lynn Aung	EIA-AC 052/2023	ကျန်းမာရေး	Reviewer
Saw Yan Naung	EIA-AC 054/2023	လူမှုရေးဆိုင်ရာ လေ့လာခြင်းနှင့် သရုပ်ခွဲဆန်းစစ်ခြင်း	Co-Leader Brief Description of Surrounding Environment Public Consultation
Htun Lin Kyaw	EIA-AC 051/2023	လူမှုရေးဆိုင်ရာ လေ့လာခြင်းနှင့် သရုပ်ခွဲဆန်းစစ်ခြင်း	Co-Leader Project Description Brief Description of Surrounding Environment
Su Myat Hlaing		လျှောက်ထားဆဲ	Environmental Impact and Mitigation Measures

Kaung Sett Lwin	EIA-AC 055/2023	ဘူမိဆိုင်ရာဆန်းစစ်လေ့လာခြင်း	Policy, Legal and Institutional Framework Brief Description of Surrounding Environment

Table 1-5 Supporting team

Name	Background Education	Activities/Responsibility
Zin Phyo Oo	B.A (Eco)	Leader Site management and communication
Wint Zarni Mg Mg	M.E (Environmental Science & Engineering) B.E (Civil Engineering)	Co-leader Noise measurement
Pyae Phyo Win	M. Sc (Botany) B.Sc (Hons) Botany	Air quality monitoring PCM
Lynn Than Thaung	B. Sc (Forestry)	Mapping Document preparation
Aung Ye' Thaw	B. Sc (Geology)	Document preparation Water Sampling
Haymar Htet Naing	B.A (English) Certificate of Achievement (English Access Micro Scholarship Program) U.S Embassy Rangoon	Document preparation PCM
No No Shee Sho	B.A (Myanmar)	Document preparation
Min Thu Kyaw	B. Sc (Geology)	Document preparation

2. POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

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

2.1. MYANMAR REGULATORY FRAMWORK

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

2.1.1. Laws and Regulations Related to Environmental and Social Considerations

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

Table 2-1 List of Myanmar's Law relating to environmental management

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

	(e) to enable to manage and implement for decrease and loss of natural resources and for enabling the sustainable use beneficially;
Provisions of Duties and Powers relating to the Environmental Conservation of the Ministry: Section 7	(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; (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: (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 user's charge s 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.

Section 24	The project proponent has to allow relevant governmental organization or department to inspect whether performing is conformity with the terms and condition include in prior permission, stipulated by the ministry, or not.
Section 25	The project proponent has to comply with the terms and conditions include in prior permission.
Section 29	The project proponent has to abide by the stipulations included in the rules, regulations, by-law, order, notification and procedure, which are issued by said law.
Environmental Conservation Rules, 2014	
Rules 58	The Ministry shall form the EIA Report Review Body with the experts from the relevant Government departments, organizations.
Rules 59	The Ministry may assign duty to the Department to scrutinize the report of EIA prepared and submitted by any organization or person relating to EIA and report through the EIA Report Review Body.
Rules 61	The Ministry may approve and reply on the EIA report o IEE or EMP with the guidance of the Committee.
Sub-rule (a) of rule 68	The project proponent has to avoid emit, discharge or dispose the materials which can pollute to environment, or hazardous waste or hazardous material prescribed by notification in the place where directly or indirectly injure to public.
Sub-rule (b) of rule 68	The project proponent has to avoid performing to damage to ecosystem and the environment generated by said ecosystem.
Environmental Impact Assessment Procedure (December 2015)	
Objectives	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. 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 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. 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. 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. 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. 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. 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. The project proponent has to prepare the monitoring report in accord with the rule 109.

	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. 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. 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. The project proponent has to allow inspector to inspect the contractor and sub-contractor who implement on behalf of project, under paragraph 117.
Screening: Section 23	a) The project proponent shall submit the Project Proposal to the Ministry for Screening. b) The Ministry will send the Project Proposal to the Environmental Conservation Department to determine the need for environmental assessment. c) Following the preliminary Screening and verification that the Project Proposal contains all required documents and related materials, subject to Articles 8, 9, 10, 11, 26 and 27 the Department shall make a determination in accordance with Annex 1 _ Categorization of Economic Activities for Assessment Purposes, taking into account Article 25 and the additional factors listed in Article 28 in order to designate the Project as one of the following, and then submit it to the Ministry: i) An EIA Type Project, or ii) An IEE Type Project, or iii) A Non IEE or EIA Type, and therefore not required to
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	Vision A clean environment, with healthy and functioning ecosystem, that ensures includes development and wellbeing for all people in Myanmar. Mission 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.
Myanmar Investment Law, 2016	
Endorsement	Means an order described the approval of the Commission relating to the endorsement application submitted by the proposed investor
Foreign Investor	Means a person who invests within the union and is not a citizen. In this expression, foreign companies, branch offices and other enterprises and registered in accordance with the Myanmar Companies Act and enterprises formed in accordance with the laws of any other country are also included
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.
Payment of Wages Law (2016)	
Section 3 & 4	The project proponent has to pay the wages in accord with section 3 and 4 of said law,
Section 5	The project proponent has to submit with the agreements of employees & reasonable ground to the department if it is difficult to pay because of force majeure included in a natural disaster
Section 7-13	The project proponent has to abide by the provisions of section 7 to 13 in the chapter (3) in respect of deduction from wages.
Section 14	The project proponent has to pay the overtime fees, prescribed by law, to the employees who work over working hours
Yangon City Development Committee Law (2018)	
Section (317)	The proponent shall not block the natural river channel, change the course, and disrupt the water channel, filling with soil within the city boundaries without the consent of the Committee
Section (318)	The project proponent shall not construct buildings, factories, and industries without sewage, toilet, septic tanks, and wastewater treatment system
Section (322)	The project proponent is not allowed to make activities that will produce noise pollution, water pollution, air pollution, and soil pollution to impact the environment within the city's boundaries
The Amended Law for Factories Act, 1951 (2016)	
Hygiene in Working Environment: Section 3	Mentions responsibilities of employer and manager regarding waste disposal, ventilation, extreme temperature, dust and gas generation, minimum space for each worker, lighting, portable drinking water and toilets for employees.
Safety in Working Environment: Section 4	States responsibilities of employer and manager concerning with machine guarding, personal protective equipment, housekeeping, aisles and exits, chemical storage and fire protection system to avoid accident.
The Private Industrial Enterprise Law, 1990	
Basic Principles: Section 3	Private Industrial 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.
The Export and Import Law (2012)	
Objectives	The objectives of this law are as follows: a) To enable to implement the economic principles of the State successfully. b) To enable to lay down the policies relating to export and import that supports the development of the State. c) To cause the policies relating to export and import of the State and activities are to be in conformity with the international trade standards. d) To cause to be streamlined and speedy in carrying out the matters relating to export and import.
Prohibitions: Section 5	No persons shall export or import restricted, prohibited and banned goods.
Prohibitions: Section 6	Without obtaining license, no person shall export or import the specified goods which are to obtain permission.
Prohibitions: Section 5	A person who obtained any license shall not violate the conditions contained in the license.
The Prevention of Hazard from Chemical and Related Substances Law, 2013	
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.	
Underground Water Act	
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.	
Myanmar Fire Brigade Law (2015)	
The Pyidaungsu Hluttaw enacted this law by Law No.11/2015 on the date of 17th March, 2015 with the following objectives: (a) to take precautionary and preventive measures and loss of state own property, private property, cultural heritage and the live and property of public due to fire and other natural disasters (b) to organize fire brigade systemically and to train the fire brigade (c) to prevent from fire and to conduct release work when fire disaster, natural disaster, epidemic disease or any kind of certain danger occurs (d) to educate, organize and inside extensively so as to achieve public corporation (e) to participate if in need for national security, peace for the citizens and law and order	
Section-8 Fire Safety Procedures	

Rule17	The relevant Government Department or organization shall, for the purpose of precaution and prevention obtain the approval of the Fire Force Department before granting permission for the following cases: a. Constructing three-storied and above buildings market and condominium buildings, b. Operating hotel, motel, guest house enterprise c. Constructing factory, workshop, storage facilities and warehouse d. Operating business expose to fire hazard by using in inflammable materials or explosive materials e. Producing and selling fire-extinguishing apparatuses f. Doing transport business, public utility vehicles train, airplane, helicopter, vessel, ship, tonkin tug
Rule18	The relevant government department or organization shall obtain the opinion of the Fire Services Department for the purpose of fire precaution and prevention, when laying down plans for construction for town, village and downtown or village development plans
The Electricity Law (2014)	
In 2014, the new Electricity Law, a comprehensive piece of legislation covering licensing, a new regulatory commission, standards, inspection, tariff, and restrictions, replaced the Electricity Law of 1984. The Electricity Law divides projects into “small” (up to 10 MW), “medium” (between 10 MW to 30 MW) and large (upwards of 30 MW); the states and regions can issue permits for small and medium power plants. In case these plants are not connected to the national grid, the Union Government Ministry is not the primary authority involved. The authorities have a legal right to use land for the purpose of power plants under the Electricity Law, and have the right to expand and maintain their facilities. The law also provides that the authorities can build transmission lines in accordance with existing laws.	
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
The Pyidaungsu Hluttaw hereby enacts this Law for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly.	
The Social Security Law (2012)	
The Social Security Law, enacted in 2012, was amended the Social Security Act in 1954. It stipulates the formation and implementation of social security systems.	
Section 53(a)	The employers and workers shall co-ordinate with the Social Security Board or insurance agency in respect of keeping plans for safety and health in order to prevent employment injury, contracting disease and decease owing to occupation and in addition to safety and educational work of the workers and accident at the establishment;
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
This law was enacted for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. It stipulates that employer in which more than 30 workers are employed shall form the workplace coordinating committee consisting of the representatives of workers and the representatives of employer.	
Section 23	A party, employer or worker, may complain individual dispute relating to his grievance to the Conciliation Body and if he is not satisfied with the conciliation of such body in accord with stipulated manners, may apply to the competent court in person or by the legal representative.
Section 24	The relevant Conciliation Body shall, in respect of the collective dispute known or received by the complaint of either party, employer or worker, in respect of the dispute; information sent by the Minister or the Region or State Government or any other means, carry out as follows: (a) conciliating so as to be settled within three days, not including the official holidays, from the day of knowing or receipt of such dispute; (b) concluding mutual agreement if the settlement is reached in conciliating under sub-section (a), before the Conciliation Body.

Section 25	The Conciliation Body shall refer the collective dispute which does not reach settlement to the relevant Arbitration Body and inform the persons relating to the dispute.
Section 38	No employer shall fail to negotiate and coordinate in respect of the complaint within the prescribed period without sufficient cause.
Section 39	No employer shall alter the conditions of service relating to workers concerned in such dispute at the consecutive period before commencing the dispute within the period under investigation of the dispute before the Arbitration Body or Tribunal, to affect the interest of such workers immediately.
Section 40	The project proponent has to not close the work without negotiation, discussion on dispute in accord with this law, decision by Tribunal
Section 51	The project proponent has to pay the compensation decided by Tribunal f violates any act or any emission to omission to damage the interest of labour by reducing of product without efficient cause.
Section 46	Any employer who violates any prohibition contained in sections 38 and 39 shall, on conviction, be punished with a fine for a minimum of one-lakh kyats.
The Employment and Skill Development (2013)	
This law was enacted for safeguarding the right of workers or having skillful of workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. Employer shall conduct occupational training to enhance the skills of workers.	
Section 5	The project proponent has to appoint employees with the contract in line with the provision of section 5 of said law.
Section 14	Employer shall conduct occupational training to enhance the skills of workers who are to be employed as well as workers who are presently employed in accordance with the requirements of the enterprise and the policy of the Skills Development Agency.
The Worker's Compensation Act, 1923	It stipulates that employer is required to make payments to employees who become injured or who die in any accidents arising during and in consequence of their employment. Such compensation also must be made for diseases which arise as a direct consequence of employment, such as carpal tunnel syndrome.
The Payment of Wages Act, 1936	The Payment of Wage Act defines the payment obligation to the workers employed in the factories or railway administration. It stipulates the method of payment stating that the payment should be made in cash on a regular payday, and allows legal action against delayed payment or un-agreeable deduction.
The Leave and Holidays Act (1951, partially revised in 2014)	This act has been used as the basic framework for leaves and holidays for workers with minor amendment in 2006 and 2014. This defines the public holidays that every employee shall be granted with full payment. It also defines the rules of leaves for workers including medical leave, earned leave and maternity leave.
The Minimum Wage Law (2013)	The minimum wage law, passed in March 2013, was replaced the 1949 Minimum Wage Act. The law provides a framework for minimum wage determination: the presidential office establishing a tripartite minimum wage committee shall decide minimum wage with industrial variation based on a survey on living costs of workers possibly every two years. This also stipulates equal payment.
Public Health Law (1972)	
Objectives	To ensure the public health include not only employees but also resident people and cooperation with the authorized person or organization of health department. This law focuses as follows 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	4. When a Principal Epidemic Disease of a Notifiable Disease occurs; Immunization and other necessary measures shall be undertaken by the Department of Health, in order to control the spread thereof; The public shall abide by measures undertaken by the Department of Health under sub-section (a).
Chapter 4 Environmental Sanitation	For prevention of the outbreak of Communicable Disease and effective control of Communicable Disease when it occurs, the public shall under the supervision and guidance of the Health Officer of the relevant area, undertake the responsibility of carrying out the following environmental sanitation measures; - Indoor, outdoor sanitation or inside the fence outside the fence sanitation; Well, ponds and drainage sanitation; Proper disposal o refuse and destruction thereof by fire; Construction and use of sanitary latrines; Other necessary environmental sanitation measures.
Occupational Safety and Health Law (2019)	
Purpose:	To effectively implement measures related to safety and health in every industry and to set occupational safety and health standards;
Section-26 Sub-section (e)	The project proponent has to provide adequate and relevant personal protective equipment to workers free of charge and make them wear it during work so as not to expose workers to any serious occupational diseases or hazards.
Section-26 Sub-section (1)	The project proponent has to arrange and display occupational safety and health instructions, warning signs, notices, posters, and signboards.
Section-30 Sub-section (a)	The worker shall wear or use at all times any protective clothes, equipment and tools provided by the employer for the purpose of safety and health.
Section-30 Sub-section (d)	The worker shall proper and systematic use any equipment and tools, machines, any parts of the machines, vehicles, electricity and other substances being used at the workplace.
Section-30 Sub-section (e)	The worker shall take reasonable care for the safety and health of himself/ herself and of other persons who may be affected by his/ her acts or omissions at work.
The law on Standardization	
Objectives	The Objectives of this Law are as follows: to enable to determine Myanmar Standard to enable to support export promotion by enhancing quality of production organizations and their product, production processes and services to enable to protect the consumers and user by guaranteeing imports and products are not lower than prescribed standard, and safe from health hazards to enable to support protection of environment related to products, production process and services from impact, and conservation of natural resources to enable to protect manufacturing, distributing and importing the disqualified goods which do not meet the prescribed standard and those which are not safe and endangered to the environment to support on establishing the ASEAN Free Trade Area and to enable to reduce technical barriers to trade to facilitate technological transfer and innovation by using the standards for the development of national economic and social activities in accordance with the national development programme.

Chapter 7 Taking Action by Committee No. 19	The committee may, if it is found out that holder of certificate of certification violates any term or condition contained in the relevant recommendation, pass any of the following administrative order: warning suspending the certificate of certification for limited period cancelling the certificate of certification
လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတတ်သောဝတ္ထုပစ္စည်းများဆိုင်ရာဥပဒေ (၂၀၁၈)	
ရည်ရွယ်ချက်	လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတတ်သောဝတ္ထုပစ္စည်းများကိုစနစ်တကျပြုလုပ်ခြင်း၊တင်သွင်းခြင်း၊သယ်ယူခြင်း၊သိုလှောင်ခြင်းနှင်းသုံးစွဲခြင်းတို့ပြုနိုင်ရန်၊ ယမ်းဘီလူးနှင့်ဆက်စပ်သုံးပစ္စည်းများအသုံးပြုသည့်လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်း၍လုံခြုံမှုရှိစေရန်၊ လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတတ်သောဝတ္ထုပစ္စည်းများပြုလုပ်သုံးစွဲမှုများကိုစနစ်တကျကြီးကြပ်နိုင်ရန်။
အခန်း၇ တားမြစ်ချက်များ အမှတ်၁၈	လိုင်စင်ရရှိသူနှင့်ခွင့်ပြုချက်ရရှိသူမည်သူမျှစစ်ဆေးရေးအရာရှိချုပ်သို့မဟုတ်စစ်ဆေးရေးအရာရှိ၏စစ်ဆေးခြင်းကိုခံယူရန်ငြင်းပယ်ခြင်းမပြုရ။
အမှတ်၁၉ (ခ)	ပုဒ်မ၈အရကာကွယ်ရေးဌာနကောင်စီအမှုဆောင်အဖွဲ့၏အတည်ပြုချက်မရရှိဘဲလုပ်ငန်းခွင်ပေါက်ကွဲစေတတ်သောဝတ္ထုပစ္စည်းများကိုဖျက်ဆီးခြင်းမပြုရ။
အမှတ်၁၉ (ဂ)	ဤဥပဒေအရထုတ်ပြန်သည့်နည်းဥပဒေ၊စည်းမျဉ်း၊စည်းကမ်း၊အမိန့်ကြော်ငြာစာ၊အမိန့်နှင့်ညွှန်ကြားချက်များနှင့်အညီဆောင်ရွက်ရန်ပျက်ကွက်ခြင်းမရှိစေရ။
Myanmar Insurance Law (1993)	
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 affect compulsory General Liability Insurance with the Myanmar insurance.
The Conservation of Water Resources and River Law (2006)	
Aims	The aims of this Law are as follow: To conserve and protect the water resources and rivers system for beneficial utilization by the public; To smooth and safety waterways navigation along rivers and creeks; To contribute to the development of State economy through improving water resources and river system; To protect environmental impact
Chapter V Prohibition Section 9	No person shall destroy, cause damage or cause collision of vessel with the river training structure either wholly or partly.
Section 11	No person shall;

	Dispose of engine oil, chemical, poisonous material and other materials which may cause environmental damage, or dispose of explosives from the bank or from a vessel which is plying vessel which has berthed, anchored, stranded or sunk. Catch aquatic creatures within river-creek boundary, bank boundary or waterfront boundary with poisonous materials or explosives. Dispose of disposal soil and other materials from panning for gold, gold mineral dredging or resource production in the river and creek, into the water outlet gully which can flow into the river and creek.
Section 15	No person shall carry out the construction of switchback, dockyard, wet dockyard, water-tight dockyard, building of jetty, pier, landing stage or vessel landing by drainage in the river-creek boundary, bank boundary and waterfront boundary without the permission of the Directorate.

2.2. NATIONAL ENVIRONMENTAL QUALITY (EMISSION) GUIDELINES

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

According to the Environmental Conservation Law, MOECAF shall set standards of environmental qualities as agreed by the Union Government and the Environmental Conservation Committee to provide the basis for regulation and control of noise and vibration, air emissions and liquid discharges from various sources in order to prevent pollution for purposes of protection of human and ecosystem health.

2.2.1. General Guidelines

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

2.2.1.1. Air emission

Projects with significant sources of air emissions, and potential for significant impacts to ambient air quality, should prevent or minimize impacts by ensuring that: (i) emissions do not result in concentrations that reach or exceed national ambient quality guidelines and standards, or in their absence current World Health Organization (WHO) Air Quality Guidelines1 for the most common pollutants as summarized below; and (ii) emissions do not contribute a significant portion to the attainment of relevant ambient air quality guidelines or standards (i.e. not exceeding 25 percent of the applicable air quality standards) to allow additional, future sustainable development in the same air shed. Industry-specific guidelines summarized hereinafter shall be applied by all projects to ensure that air emissions conform to good industry practice. Reference should be made to WHO's Air Quality Guidelines for Europe2 for air pollutants not included in the following Table 2-2.

Table 2-2 NEQEG's Air Quality Guideline

Parameter	Averaging Period	Guideline Value
Nitrogen Dioxide	1-year	40

	1-hour	200
Ozone	8-hour	100
Particulate Matter PM10[a]	1-year 24-hour	10 50
Particulate Matter PM2.5[b]	1-year 24-hour	10 25
Sulfur dioxide	24-hour 10-minute	20 500

[a] Particulate matter 10 micrometers or less in diameter

[b] Particulate matter 2.5 micrometers or less in diameter

2.2.1.2. Wastewater

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

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

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

Parameter	**Unit**	**Guideline Values**
5-day Biochemical oxygen demand	mg/l	50
Ammonia	mg/l	10
Arsenic	mg/l	0.1
Cadmium	mg/l	0.1
Chemical oxygen demand	mg/l	250
Chlorine (total residual)	mg/l	0.2
Chromium (hexavalent)	mg/l	0.1
Chromium (total)	mg/l	0.5
Copper	mg/l	0.5
Cyanide (free)	mg/l	0.1
Cyanide (total)	mg/l	1
Fluoride	mg/l	20
Heavy metals (total)	mg/l	10

Iron	mg/l	3.5
Lead	mg/l	0.1
Mercury	mg/l	0.01
Nickel	mg/l	0.5
Oil and grease	mg/l	10
pH	S.U.[a]	6-9
Phenols	mg/l	0.5
Selenium	mg/l	0.1
Silver	mg/l	0.5
Sulphide	mg/l	1
Temperature increase	°C	<3[b]
Total coliform bacteria	100 ml	400
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50
Zinc	mg/l	2

a Standard Unit

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

2.2.2. IFC EHS Guidelines

The EHS Guidelines[1] by International Finance Cooperation (IFC) are technical reference documents with general and industry–specific examples of Good International Industry practice (GIIP), as defined in IFC's Performance Standard 3: Resources Efficiency and Pollution Prevention. The EHS Guidelines contain the performance levels and measures that are normally acceptable to IFC, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology.

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

Table 2-4 Community health and safety contents

Contents	Brief Description
Water Quality and Availability	Drinking water sources should at all times be protected so that they meet or exceed applicable national acceptability standards or in their absence the current edition of WHO Guidelines for Drinking-Water Quality. Project activities should not compromise the availability of water for personal hygiene needs and should take account of potential future increases in demand. The overall target should be the availability of 100 liters per person per day.
Structural Safety of Project Infrastructure	Reduction of potential hazards is best accomplished during the design phase when the structural design, layout and site modifications can be adapted more easily. The following issues should be considered and incorporated as appropriate into the planning, siting, and design phases of a project (1) inclusion of buffer strips or other methods of physical separation around project sites to protect the public from major hazards associated with hazardous materials incidents or process failure (2) incorporation of siting and safety

Contents	Brief Description
	engineering criteria to prevent failures due to natural risks posed by earthquakes, tsunamis, wind, flooding, landslides and fire, and (3) application of locally regulated or internationally recognized building codes, standards and regulations, and mitigation measures.
Traffic Safety	Traffic safety should be promoted by all project personnel during displacement to and from the workplace, and during operation of project equipment on private or public roads. Prevention and control of traffic related injuries and fatalities should include the adoption of safety measures that are protective of project workers and of road users, including those who are most vulnerable to road traffic accidents.
Transport of Hazardous Materials	Projects should have procedures in place that ensure compliance with local laws and international requirements applicable to the transport of hazardous materials.
Disease Prevention	Recommended interventions against the communicable diseases at the project level include (1) providing surveillance and active screening and treatment of workers, (2) preventing illness among workers in local communities by undertaking health awareness and education initiatives, training health workers in disease treatment and conducting immunization programs for workers, and (3) providing treatment through standard case management in on-site or community health care facilities.
Emergency preparedness and Response	All projects should have an Emergency preparedness and Response Plan that is commensurate with the risks of the facility and that includes the following basic elements: (1) Administration (policy, purpose, distribution, definitions, etc.) (2) Organization of emergency areas (command centers, medical stations, etc. (3) Roles and responsibilities, (4) Communication systems, (5) Emergency response procedures, (6) Emergency resources, (7) Training and updating, (8) Checklists (role and action list and equipment checklist), and (9) Business Continuity and Contingency.

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

2.3. INSTITUTIONAL ARRANGEMENT

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

2.4. COMMITMENT OF MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED

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

a) The accuracy and completeness of the EMP,

b) That the EMP has been prepared in strict compliance with applicable laws including this Procedure

c) That the Project will at all times comply fully with the commitments, mitigation measures, and plans in the EMP Report.

Myanmar Cotton Spinning Garment Accessories Co., Ltd. Shall be responsible for the environmental assessment of factory development as follows:

- Monitoring the factory area operations according to EMP and Environmental Monitoring Plan (EMoP)
- Submitting environmental monitoring reports to ECD
- Planning and implementation of CSR activities
- To set up welfare plan such as staff medical checkup, training program and public talk for getting knowledge, risk prevention, bonus and social security service
- To carry out fire safety assessment and ensure adequate and appropriate fire safety measures for employees.

MYANMAR COTTON SPINNING GARMENT ACCESSORIES CO., LTD.
No.
Date.

Mr Miao GuangYu

Director

Myanmar Cotton Spinning Garment Accessories

3. PROJECT DESCRIPTION

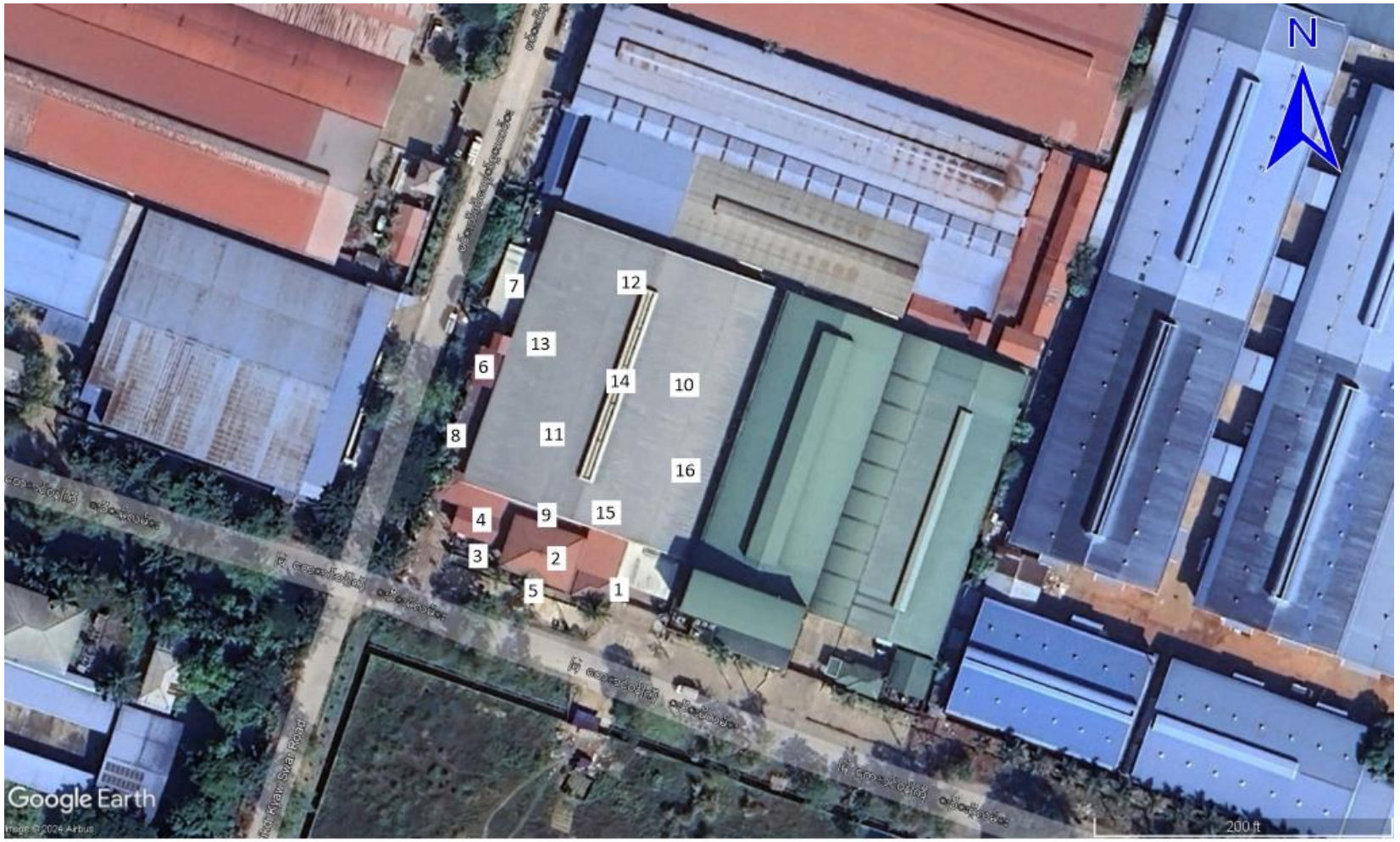
3.1. LOCATION OF PROPOSED PROJECT

The proposed project is located at Latitude 16°51'7.50"N and Longitude 96° 4'5.87"E, Plot No. (93/A), Corner of Mya Taung Wun U Hmo St. and Min Theiddhi Kyaw Swar St., Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Township, Yangon Region. The location map of the proposed project size is shown in Figure 3-1.

3.1.1. Site Description of Proposed project site

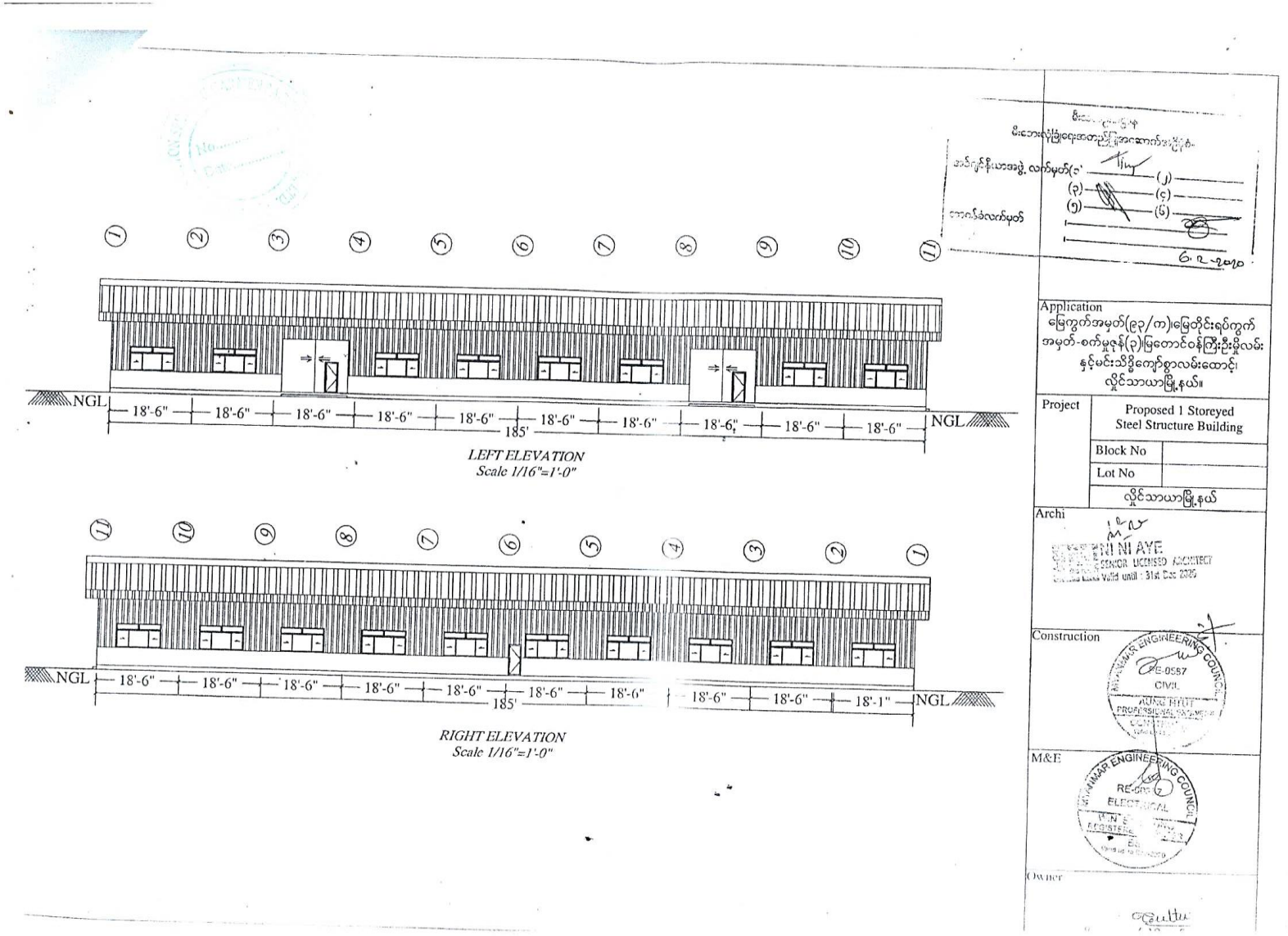
The total land area is 1.003 acres (4059 sqm) and build (183′ x 145′) one story steel structure building, (35′ x 40′) two story steel structure building, which were built on its land area.

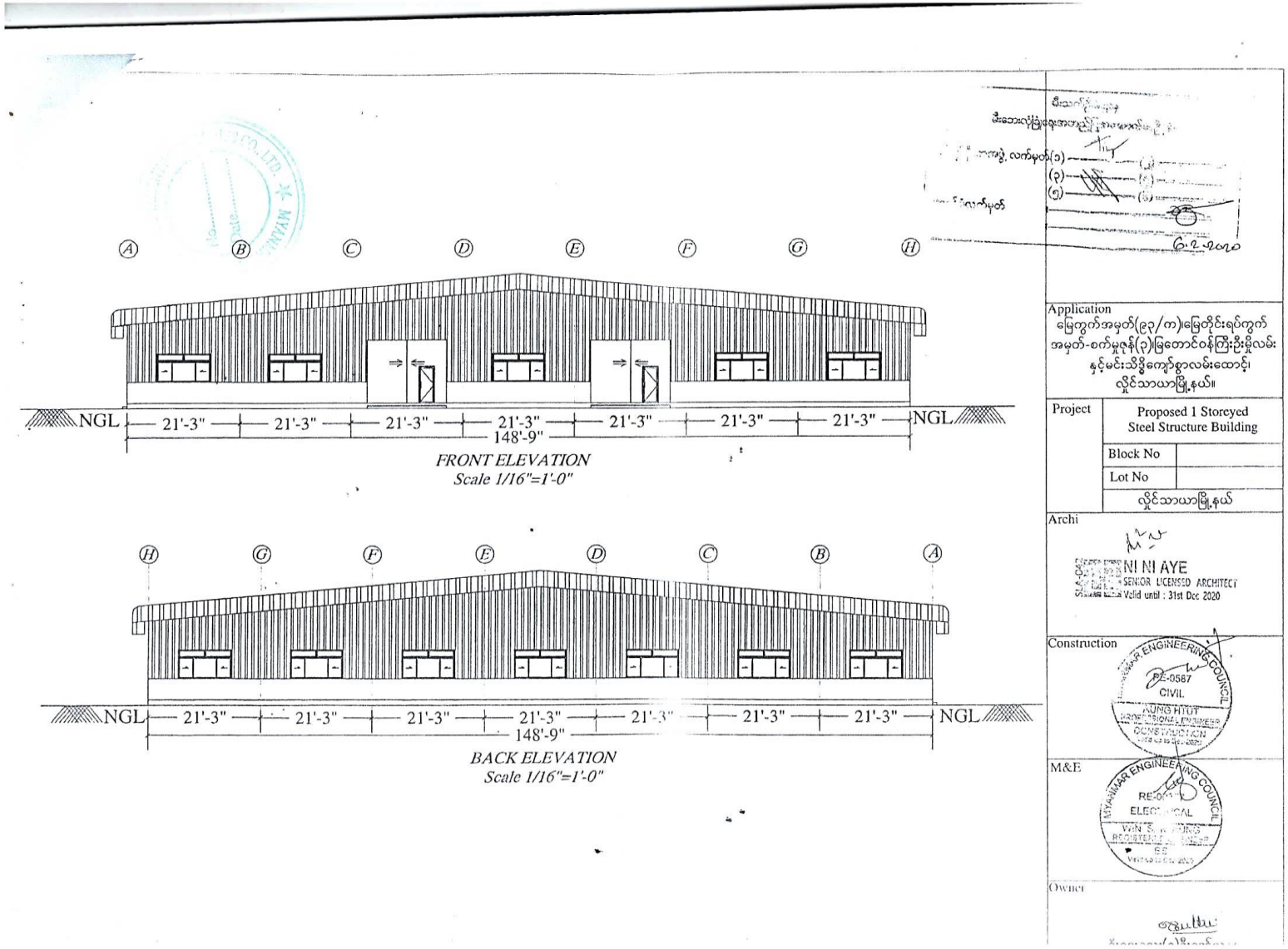
Figure 3-1 Location Map



1. Security Gate, 2. Dormitory, 3. Transformer, 4. Generator, 5. Water Tank, 6. Boiler, 7. Toilet, 8. Firefighting Tank, 9. Warehouse, 10. Sewing line, 11. Mix Well, 12. Grinding in Eiderdown Cotton Process, 13. Water and Glue Spray, 14. Packing, 15. Grinding in Gunned Cotton Process, 16. Quality Control

Figure 3-2 Factory Layout Map


① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪
NGL
18'-6" 18'-6" 18'-6" 18'-6" 18'-6" 18'-6" 18'-6" 18'-6" 18'-6" 18'-6"
185'
NGL
LEFT ELEVATION
Scale 1/16"=1'-0"
⑪ ⑩ ⑨ ⑧ ⑦ ⑥ ⑤ ④ ③ ② ①
NGL
18'-6" 18'-6" 18'-6" 18'-6" 18'-6" 18'-6" 18'-6" 18'-6" 18'-6" 18'-1"
185'
NGL
RIGHT ELEVATION
Scale 1/16"=1'-0"
Application
Project
Proposed 1 Storeyed Steel Structure Building
Block No
Lot No
Archi
Construction
M&E
Owner


Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ
NGL
21'-3" 21'-3" 21'-3" 21'-3" 21'-3" 21'-3" 21'-3"
148'-9"
NGL
FRONT ELEVATION
Scale 1/16"=1'-0"
Ⓗ Ⓖ Ⓕ Ⓔ Ⓓ Ⓒ Ⓑ Ⓐ
NGL
21'-3" 21'-3" 21'-3" 21'-3" 21'-3" 21'-3" 21'-3"
148'-9"
NGL
BACK ELEVATION
Scale 1/16"=1'-0"
Application
မြေကွက်အမှတ်(၉၃/က)မြေတိုင်းရပ်ကွက်
အမှတ်-စက်မှုဇုန်(၃)မြတောင်ဝန်ကြီးဦးပိုလမ်း
နှင့်မင်းသိဒ္ဓိကျော်စွာလမ်းထောင့်၊
လှိုင်သာယာမြို့နယ်။
Project
Proposed 1 Storeyed
Steel Structure Building
Block No
Lot No
လှိုင်သာယာမြို့နယ်
Archi
NI NI AYE
SENIOR LICENSED ARCHITECT
Valid until : 31st Dec 2020
Construction
MYANMAR ENGINEERING COUNCIL
PE-0587
CIVIL
KUNG HTUT
PROFESSIONAL ENGINEER
CONSTRUCTION
M&E
MYANMAR ENGINEERING COUNCIL
ELECTRICAL
Owner

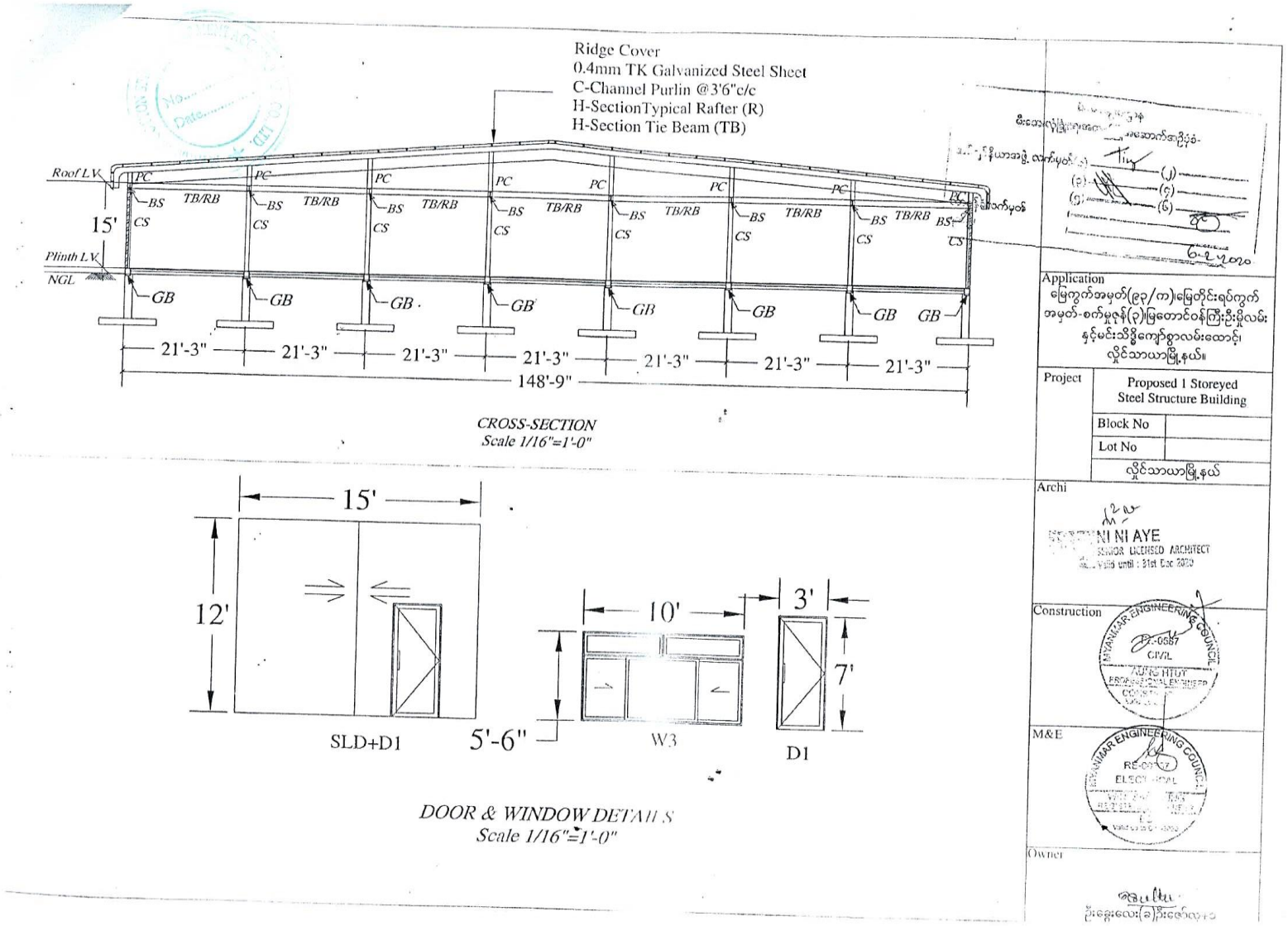


Figure 3-3 Factory Drawing

Figure 3-4 1km radius of proposed project

3.1.2. Production Process

In the production process of Honing, the cotton rolls that will be sewn together with the fabric are placed. Then the fabric and cotton are sewn together. After sewing, the quilts are sent to the quality control section and packed.

In the production process of Eiderdown Cotton, 5 or 7 raw materials are put into the machine and mixed together. Then the mixed raw materials are ground by the machine rollers. After that, a mixture of water and glue is sprayed onto the crushed cotton. In the final step, the cotton rolls sprayed with water and glue are slightly heated with rolling machine and packed.

In the production process of Gunned Cotton, one or two raw materials are mixed and put into the machine and they are crushed. The crushed cotton is put into the bag and packed.

The process flow diagram is illustrated in Figure 3-5, Figure 3-6 and Figure 3-7.

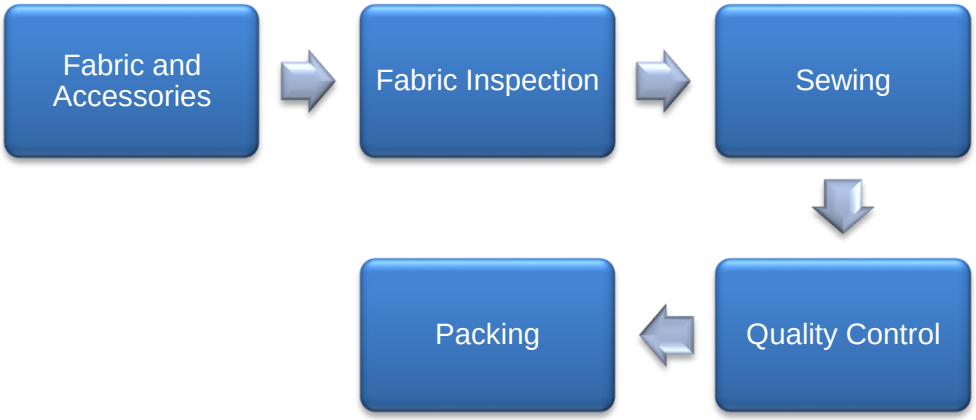


Figure 3-5 Flow Diagram of Honing Process

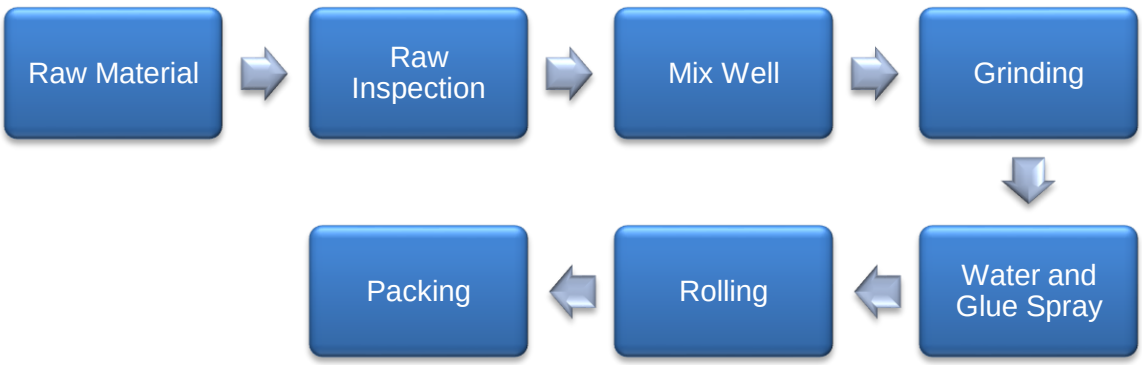


Figure 3-6 Flow Diagram of Eiderdown Cotton Process

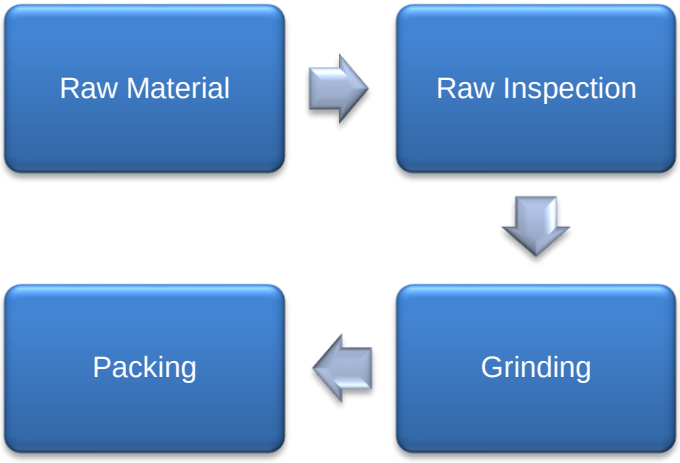


Figure 3-7 Flow Diagram of Gunned Cotton Process

Sewing

Mix Well

Grinding in Eiderdown Cotton Process

Water and Glue Spray

Rolling

Packing

Grinding in Gunned Cotton Process

Figure 3-8 Production Process Photos

During operation, the proposed factory is expected to produce gunned cotton, eiderdown cotton, honing for local CMP garment enterprises. Annual production rate is shown in Table 3-1.

Table 3-1 Annual Production Rate

No	Particular	Unit	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6-10
Production								
1.	Gunned Cotton Finished Product	Ton	1,800	1,900	1,900	2,000	2,000	2,100
2.	Eiderdown Cotton	Ton	360	400	400	550	550	600
3.	Honing	Meter	1,080,000	1,090,000	1,090,000	1,100,000	1,100,000	1,100,000

Eiderdown Cotton

Gunned Cotton Finished Product

Honing

Figure 3-9 Products Photos

3.2. UTILITIES

3.2.1. **Raw Material**

The main Raw Materials are Chemical Fiber Material, Glue, Plastic Bag, Printing ink, Solvent, Thread, Interlining, Elastic Fabric, Bopp, Tape. The required raw materials will be imported from China and Thailand. List of Raw materials are described in Table 3-2.

Table 3-2 List of Raw Materials Requirement

No	Particular	Unit	Year-1	Year-2	Year-3	Year-4	Year-5	Year-6-10
1	Chemical Fiber Material	Ton	1,000	1,050	1,100	1,150	1,200	1.250
2	Glue	Ton	400	420	440	460	480	500
3	Plastic Bag	Ton	1,200	1,200	1,200	1,200	1,200	1,200
4	Printing ink	Cans	200	220	240	260	280	300

No	Particular	Unit	Year-1	Year-2	Year-3	Year-4	Year-5	Year-6-10
5	Solvent	Cans	200	220	240	260	280	300
6	Thread	Cans	500	520	540	560	580	600
7	Interlining	Roll	500	520	540	560	580	600
8	Elastic Fabric	Roll	500	520	540	560	580	600
9	Bopp	Roll	8,000	8,200	8,400	8,600	8,800	9,000
10	Tape	Roll	2,000	2,200	2,400	2,600	2,800	3,000

Chemical Fiber Material

Glue

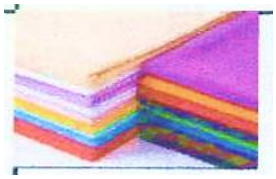
Plastic bag

Printing Ink

Solvent

Thread

Interlining



Elastic Fabric

Bopp

Tape

Figure 3-10 Raw Material Photos

3.2.2. **Machinery and Equipment**

List of machinery and equipment required for Myanmar Cotton Spinning Garment Accessories Co., Ltd. is following in Table 3-3.

Table 3-3 List of Machinery

No.	Particular	Brand	Unit	Quantity	Purchase Country
Operating Equipment & Factory Accessories					
1.	Spray bonded padding equipment	New	Nos	1	China
2.	Fake down padding equipment	New	Nos	1	China
3.	Quilting machine	New	Nos	13	China
4.	Polybag blowing machine	New	Nos	2	China
5.	Polybag printing machine	New	Nos	2	China
6.	Polybag making machine	New	Nos	10	China
7.	Sewing machine	New	Nos	1	China
Office Equipment & Utilities					
1.	Spray-coated cotton equipment	New	Nos	1	Myanmar
2.	Thermal Oil	New	Nos	1	Myanmar
3.	Quilting Machine	New	Nos	1	Myanmar
4.	Generator	New	Nos	2	Myanmar
Vehicles					
1.	Forklift truck	New	Nos	1	China
2.	Automobile	New	Nos	1	Myanmar

3.2.3. Human Resource

Human resource required by foreign experts/technicians and local persons for administrative and production process is described in Table 3-4. The factory currently has 36 employees. The working day of the factory is at least 262 days per year. Working hour starts from 8:00 am to 5:00 pm. The lunch time is from 12:00 pm to 1:00 pm.

Table 3-4 Employment Schedule of Myanmar Cotton Spinning Garment Accessories Company Limited

No.	Position	Year-1	Year-2	Year-3	Year-4	Year-5	Year 6 to 10

Foreign Staff							
1	Manager	1	1	1	1	1	1
2	Admin Manager	1	1	1	1	1	1
3	QC	1	1	1	1	1	1
4	Production Technician	1	1	1	1	1	1
5	Store Manager	1	1	1	1	1	1
Subtotal		**5**	**5**	**5**	**5**	**5**	**5**
Local Staff							
1	Manager	2	2	2	2	2	2
2	HR Manager	1	1	1	1	1	1
3	Admin Manager	3	3	3	3	3	3
4	QC	5	5	5	5	5	5
5	Staff	95	100	110	120	130	130
Subtotal		**106**	**111**	**121**	**131**	**141**	**141**
Total		**111**	**116**	**126**	**136**	**146**	**146**

3.2.4. **Water Requirement**

The factory gets water from the two tube wells installed inside the factory compound. The depth of one of the tube wells are 10 feet. Groundwater from these tube wells is pumped in the storage tank of size (5 x 5 x 4)ft for the factory and domestic use. 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 will be provided by outsource supplier (April Moe Drinking Water Factory). Estimated water consumption for production process is about 3,150 liters and domestic usage is about 15,000 liters per month. Figure 3-11 is described by water storage tank and drinking water supply for Myanmar Cotton Spinning Garment Accessories factory.

Figure 3-11 Water storage tank and drinking water supply

3.2.5. Electricity and Fuel Requirement

The proposed project intended to get required electricity supply form Yangon City Electricity Supply Board (YESB) and distributed by 400 KVA of Transformer and another sources of energy 480 kVA, and 40 kVA generators which also be kept as the emergency generator if normal electricity supply could not provide for the proposed project. Estimated electricity usage is about 5,984 kWh per month. Required diesel for generator are purchased from the nearest petrol station. Fuel requirement is about 2000 liters per month.

Figure 3-12 Electricity Facilities

3.2.6. Boiler

Myanmar Cotton Spinning Garment Accessories Co., Ltd. use a type of boiler that heats oil instead of water (thermal oil boiler) for factory operation. Oil usage is about 16 gallons per month.

Firewood, supply from local supplier, is use as a fuel for this boiler and consumer 10 tons per month. Boiler stack height is about 50 ft. Filters are installed in the boiler chimney to control hazardous pollutants released during process operations.

Boiler certificates are described in **Appendix** and boiler photos are shown in Figure 3-13.

Figure 3-13 Boiler Usage

3.3. FACILITIES

3.3.1. Fire hazards protect facility

Fire extinguishers, fire hose reels and fire hydrants are installed in the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening is also constructed with the capacity of 17,235 gallons at the proposed area. The emergency contact numbers of township and district fire services department must be printed and tagged at easily visible places for fire emergency cases. The emergency fire alarms are installed at the factory for alerting the workers in case of fire. The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases. In addition, the project proponent has plans to provide trainings on firefighting for the workers by a professional or otherwise by sending to training courses. The plan to install fire alarm system and fire-frightening system are mentioned in Figure 3-14.

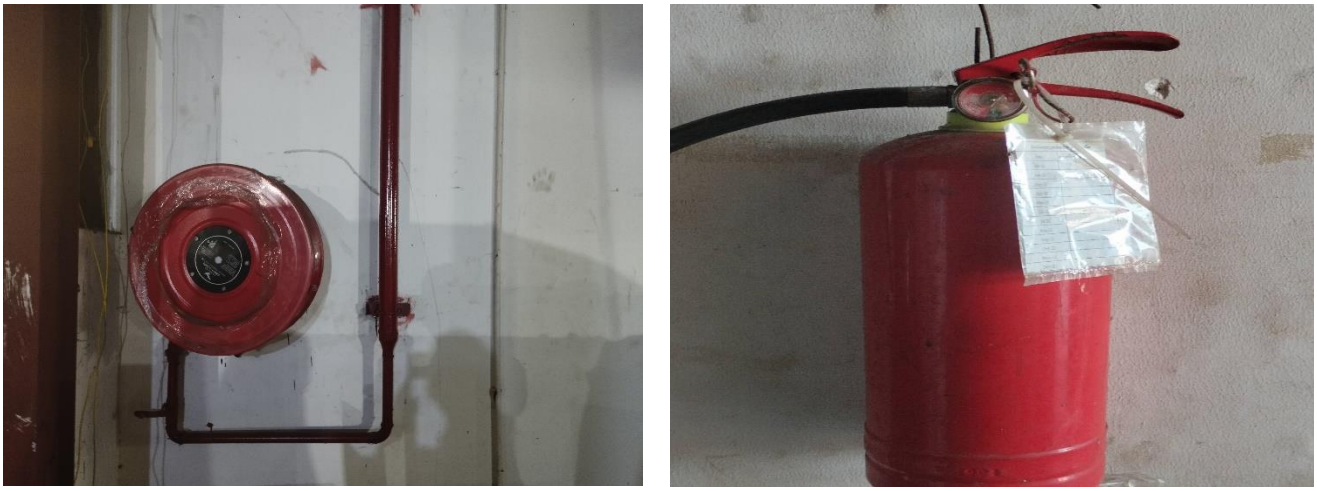


Figure 3-14 Firefighting system

3.3.2. Toilet facilities

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. Total numbers of toilet for male are 2 rooms and for female are 2 rooms.

Figure 3-15 Toilet Facility Photo

3.3.3. Medical and Health Facility for Employments

The factory has made an agreement with Thu Kha Su San Clinic and Laboratory Center for healthcare of the employees. Moreover, Personal Protective Equipment (PPEs) are provided for relevant department.

Thu Kha Su San
Specialist Clinic & Laboratory Centre
Sales of various Medications and Advanced Diagnostics
ISO 9001 : 2015

To : Myanmar Cotton Spinning Garment Co.,Ltd
Address : Plot No.93/A, Hlaing Thar Yar Industrial Zone (3), HlaingThar Yar Township, Yangon Region, Myanmar.
From : Thu Kha Su San Specialist Clinic & Laboratory Centre
Date : 20th Oct 2023

This agreement is made between **Thu Kha Su San Specialist Clinic & Laboratory Centre** and **Myanmar Cotton Spinning Garment Co.,Ltd**. This agreement here in after will be know as **Myanmar Cotton Spinning Garment Co.,Ltd** and **TKSS** Corporate Health Benefits Contract. The agreement will commence on 20.10.2023 and will remain effective for a period of 12 months. The agreement is renewable after a subsequent period of 12 months with the approval from both parties.

1. Corporate Benefits

The OPD service will be given in TKSS (Thu Kha Su San Specialist Clinic & Laboratory Centre). In TKSS, emergency and inpatient services will be rendered for 24hrs, 7 Days a week. For the benefit of our corporate partner, we shall provide discount on our Health Care Service according to the following policy.

Discount will be given to:

(a) Medical Services

No	Description	Percentage Discount
1.	OPD Services (Except - Specialist's Fee and Pharmacy Service)	20 %
2.	Laboratory Test (Within the capacity of TKSS Laboratory)	5%
3.	Imaging Investigations	5%
4.	Dental Services	5%
5.	Physical Therapy and Rehabilitation Services)	5%

HR Manager
Daw Hay Man Nway
Myanmar Cotton Spinning Garment Co.,Ltd

Chief Of the Clinic
Dr. Thant Zaw Htet
Thu Kha Su San Specialist Clinic & Laboratory

No.6, Ward(6), Kyansitthar Street, Hlaing Tharyar Township, Yangon.
Ph: 09 775067678, 09 685017108, 09 258738025

Figure 3-16 Healthcare Facility

3.3.4. **Ventilation System**

The factory ventilation systems consist of natural ventilation system and mechanical ventilation system. The mechanical ventilation system is provided in production area, toilet, kitchen and dormitory.

Figure 3-17 Ventilation System

3.4. GENERATION OF WASTE, EMISSION AND DISTURBANCES

Solid waste (recycle waste) such as empty glue containers are hand over to local buyer and cotton fibers are 100 percent reused in production. 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. Total amount of solid waste about maximum 15 kg per day are generated from the operation. And others solid waste from the whole factory (such as from human, kitchen, packing). Domestic liquid waste is discharged into industrial zone drainage. Wastewater is not

generated from the production process because in the process of spraying the cotton with a liquid mixed with water and glue, the cotton completely absorbs the liquid.

3.4.1. Waste Generation

The project will be generated solid waste, liquid waste and hazardous waste from the operation of the Myanmar Cotton Spinning Garment Accessories Co., Ltd. Detail description of waste generation and waste amount are shown in below.

Table 3-5 Waste Generation & Waste Amount

Waste		Type of wastes	Estimated waste amount	Source of generation
Solid waste	Re-usable	Cotton fabric	453 kg / month	Production area
		Empty glue containers	15 nos/ month	
	Non re-usable	Food residues, domestic waste	14 kg / day*	Canteen, Kitchens, dormitory
Liquid waste		Sanitary discharge water	3.6 m^3 /day*	Toilet facility, kitchen and canteen
Hazardous waste		Oil leakage and spills	-	Operation of generator and movements of vehicles

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).

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

4. BRIEF DESCRIPTION OF SURROUNDING ENVIRONMENT

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

4.1. METHODOLOGY FOR DATA COLLECTION AND ANALYSIS

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

- Onsite Measurements and Analysis – Baseline parameters such as Indoor temperature, humidity, operation light conditions, noise and air quality of the project site during operation phase were measured onsite. The analyzed results are mentioned in this chapter.
- Secondary data collection of proposed project site area – Social economic condition, physical/biological environment, and weather data are collected from official township data of Hlaing Thar Yar Township, Yangon Region.

4.2. ENVIRONMENTAL BASELINE STUDY

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

Table 4-1 Location of the Survey Point

Type of Survey	Coordinates	Survey point	Description of survey point
Noise Level (NL)	16°51'8.28"N 96°4'6.35"E	Project site	Production area of factory area
Light Intensity (LI)	16°51'8.80"N 96°4'6.34"E	Project site	Production area of factory area
Indoor Air Quality Monitoring Point (AQM)	16°51'7.83"N 96°4'5.89"E	Project site	Production area of factory area
Outdoor Air Quality Monitoring Point (AQM)	16°51'7.08"N 96°4'6.35"E	Project site	In front of the factory building
Boiler Stack Emission Monitoring	16°51'8.53"N 96° 4'5.24"E	Project site	Beside the factory building

Type of Survey	Coordinates	Survey point	Description of survey point
Ground Water Sampling Point	16°51'7.07"N 96°4'6.07"E	Project site	In front of the factory building

Figure 4-1 Baseline Study Map of Myanmar Cotton Spinning Garment Accessories Co., Ltd.

4.3. BASELINE ENVIRONMENTAL MONITORING

The baseline environmental quality at the Project Site and its immediate surroundings was established by groundwater and air quality samples; as well as noise and light measurements at immediate surrounding areas. The data is presented below.

4.3.1. Weather Condition

The weather condition during 9 August 2023 shows the average temperature of 34.14 °C while the average humidity is 62.19 %.

Table 4-2 Relative Humidity and Temperature Measure at Proposed Project

Date and Time	Description	Result value	Environmental parameter air station guideline
9 August 2023	Relative Humidity RH %	62.19 (%)	Present condition
	Temperature	34.14 °C	Present condition

4.3.2. Noise

The Noise level was measured by using Digital Sound Level Meter for working hours on 9 August 2023. The average noise level in the project site area is presented in Table 4-3 compared with NEQ guideline. However, according to the Noise source monitoring at operation area (inside the sewing

sector) of noise level is within the acceptable level of National Environmental Quality (Emission) Guideline.

Table 4-3 Noise Level Measurement Result

Date and Time	Location	GPS Value	Result Value	NEQ Guideline
9 August 2023	Production Area	16°51'8.28"N 96°4'6.35"E	62.20 dBA	70 dBA

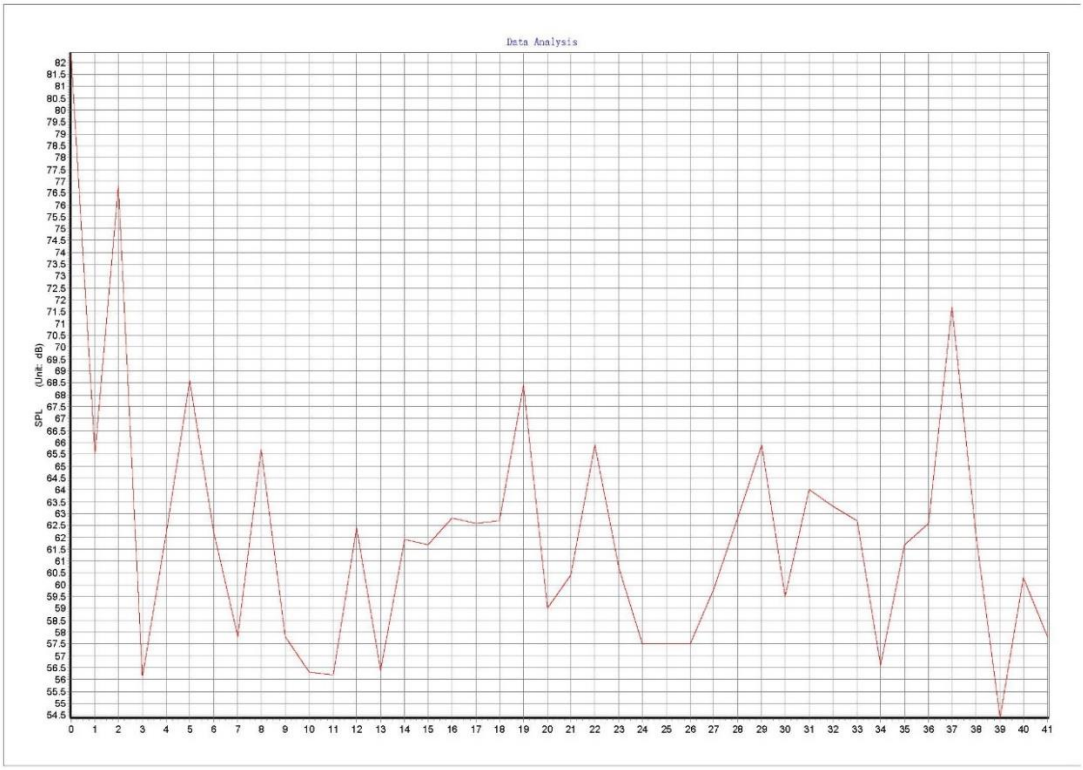


Figure 4-2 Noise level result graph

Figure 4-3 Sound Level Measurement Photo

4.3.3. Light

Activities of the workers in the factory are highly dependent on the quality of light. Therefore, on 9 August 2023, the consultant conducted the light measurement in the factory is presented in Table 4-5. The illustrates the recommended illumination and limiting glare index applicable to typical works (fairly severe to very severe tasks) in garments factory is provided in Table 4-4 .

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 the 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 4-4 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

Table 4-5 Result of light measurement in Myanmar Cotton Spinning Garment Accessories Co., Ltd.

No.	Location	Measure Value (Lux)	Standard
1.	Warehouse area	405	300
2.	Sewing area	612	400
3.	Grinding area	1205	1000
4.	Quality Control area	985	900
5.	Packing area	792	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).

Figure 4-4 Light quality measurement

4.3.4. **Air Quality**

To determine the existing baseline air quality status within the project site from 9 August 2023 to 11 August 2023, which include dust (PM_{10} and $PM_{2.5}$) and gases (NO_2, SO_2, CO_2, and O_3) were measured at the selected site using the OCEANUS AQM-09 air monitoring station. To reveal the existing status of baseline air quality, the average indoor and outdoor air qualities measured were compared with National Environmental Quality (Emission) Guideline. The measurement location points are situated at latitude 16°51'7.07"N and longitude 96°4'6.07"E, and latitude 16°51'7.08"N and longitude 96°4'6.35"E. It was observed that the air quality measurement results are within the National Environmental Quality (Emission) Guideline.[4]

Table 4-6 Indoor Air Quality Measurement Result

Parameters	Observed value	Guideline value	Unit	Guideline	Period
PM_{10}	32.63	50	µg/m³	NEQG	24 hrs
$PM_{2.5}$	13.05	25	µg/m³	NEQG	24 hrs
Nitrogen dioxide	10.62	200	µg/m³	NEQG	1 hrs
Sulfur dioxide	1.50	20	µg/m³	NEQG	24 hrs
Ozone	25.48	100	µg/m³	NEQG	8 hrs
Carbon dioxide	0.47	NG	µg/m³	-	

Table 4-7 Outdoor Air Quality Measurement Result

Parameters	Observed value	Guideline value	Unit	Guideline	Period
PM_{10}	24.23	50	µg/m³	NEQG	24 hrs
$PM_{2.5}$	10.85	25	µg/m³	NEQG	24 hrs
Nitrogen dioxide	17.54	200	µg/m³	NEQG	1 hrs
Sulfur dioxide	3.08	20	µg/m³	NEQG	24 hrs
Ozone	39.79	100	µg/m³	NEQG	8 hrs
Carbon dioxide	0.71	NG	µg/m³	-	

*NG = No Guideline

Figure 4-5 Air Quality Measurement

4.3.5. Wind Speed and Direction

4.3.5.1. Location of Measurement and Survey Methods

Wind speed and direction are at 1.5 meter above ground level at also measured on same date and location as those selected for the air quality measurements.

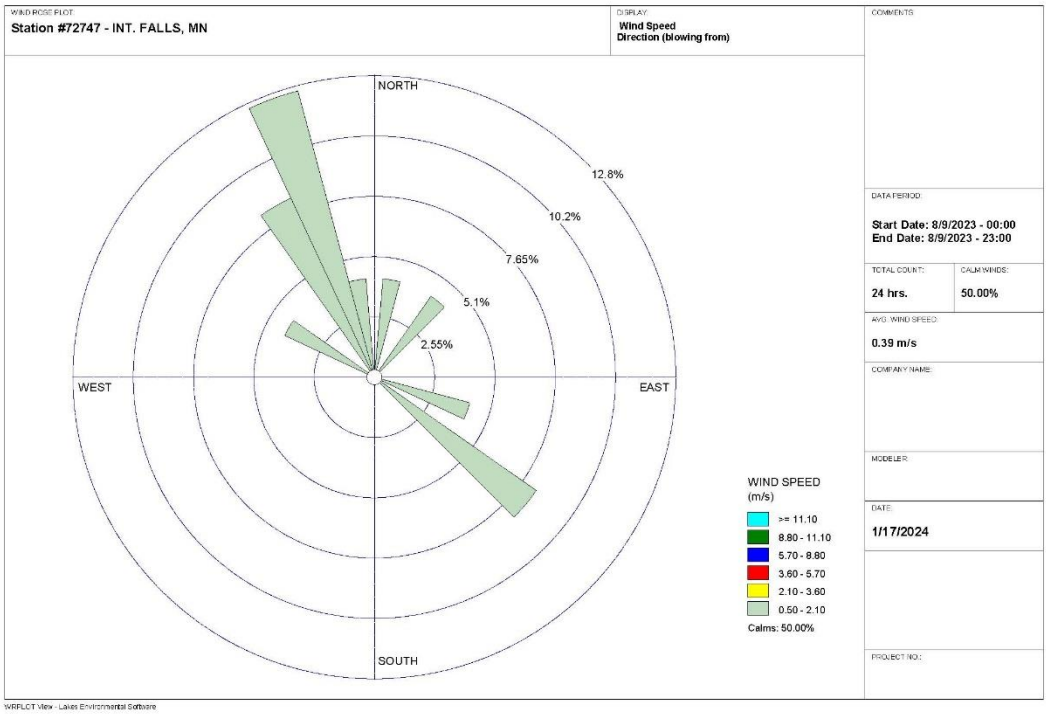
4.3.5.2. Survey Results

Wind speed and wind direction are also measured at the same location of air quality measurement. The results of wind speed and wind direction are described in Table 4-8. The wind rose diagram and wind class frequency distribution are shown in Figure 5-5.

50% of wind are calm and wind in 24 hours is lower than 11.1 meter per second. The wind blows mostly to the North West South East (NWSE) direction.

Table 4-8 Results of Wind Speed and Direction Measurement in 2022

Station	Measurement Date	Distance from Project Site (m)	Wind Speed (m/s)	Wind Calm (%)	Prevailing Wind Direction
1	9 August, 2023	16°51'7.08"N 96°4'6.35"E	0.39	50	NWSE



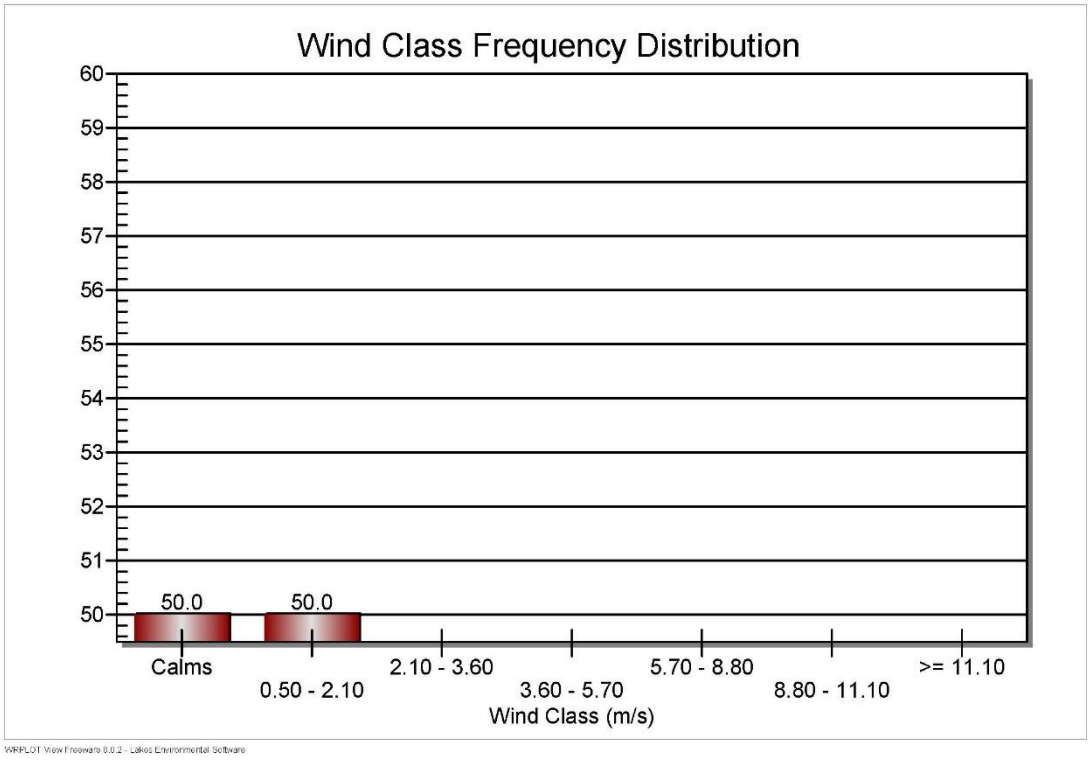


Figure 4-6 Wind Speed and Wind direction

4.3.6. Stack Emission

The observations were tabulated and analyzed section wise to understand the environmental status prevailing in the units considered for the study. It was observed that NO2, SO2, CO2 and CO are within OSHA standard. The detail of stack emission measurement result is shown in Table 4-9.

Table 4-9 Boiler stack emission measurement

Location	Date	Parameter	Observed Value	OSHA Guideline	Unit	Averaging Period
16°51'8.53"N 96° 4'5.24"E	9 August, 2023	CO_2	431	5000	ppm	8 Hour
		SO_2	0.01	5	ppm	8 Hour
		NO_2	0.02	5	ppm	8 Hour
		CO	1.76	50	ppm	8 Hour

OSHA = Occupational Safety and Health Administration Guideline

Figure 4-7 Boiler Stack Emission Monitoring

4.3.7. Ground Water Quality

Ground water samples were collected according to the WHO Drinking Water Guideline. In this project, ground water, the water obtained from the tube wells inside the factory, were collected on 9 August, 2023. The collected sample of ground water was tested at ALARM Ecological Laboratory.

Table 4-10 Coordinated point of ground water collection point

Water Parameter	GPS Value	Location
Ground Water	16°51'7.07"N 96°4'6.07"E	Within proposed site of treatment plant

4.3.7.1. Ground water result

According to the ground water analysis results see in Table 4-11. All of the parameter are within WHO Drinking Water Guideline.

Table 4-11 Water quality results

No.	Parameter	Unit	Water result	WHO Drink Water Guideline
1.	pH	S.U	6.3	6.5-8.5
2.	Turbidity	FAU	<5	≤5
3.	Total Solids	mg/L	78	-
4.	Hardness	mg/L	3	≤500
5.	Chloride	mg/L	95	≤250
6.	Free Cyanide	mg/L	<0.01	-
7.	Arsenic	mg/L	0.005	≤0.05
8.	Copper	mg/L	ND	≤2
9.	Iron	mg/L	<0.1	≤1
10.	Lead	mg/L	ND	≤0.01
11.	Manganese	mg/L	<0.01	≤0.4
12.	Zinc	mg/L	<0.02	≤3

Figure 4-8 Ground Water Sampling

4.4. PHYSICAL COMPONENT IN PROJECT AREA

4.4.1. 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 34km away from the Gulf of Martaban. The proposed project area is situated at Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Township, and its topographic condition is flat. The proposed project site is primarily agricultural land, but now is initiated into the industrial zone area.

4.4.2. Geology

In Yangon area mainly composed of Pegu Group, Irrawaddy Formation and Alluvium. Alluvial deposits (Pliestocene to Recent), the non-marine fluvialtile sediments of Irrawady formation (Pliocene),

and hard, massive sandstone of Pegu series (early-late Miocene) underlie the Yangon area. Alluvial deposits are composed of gravel, clay, silts, sands and laterite which lie upon the eroded surface of the Irrawaddy formation at 3-4.6 m above mean sea level (MSL). The rock type in Yangon is mainly soft rocks, which consist of sandstone, shale, limestones and conglomerate. Geological map of Yangon Regional area is shown in Figure 4-9. [2]

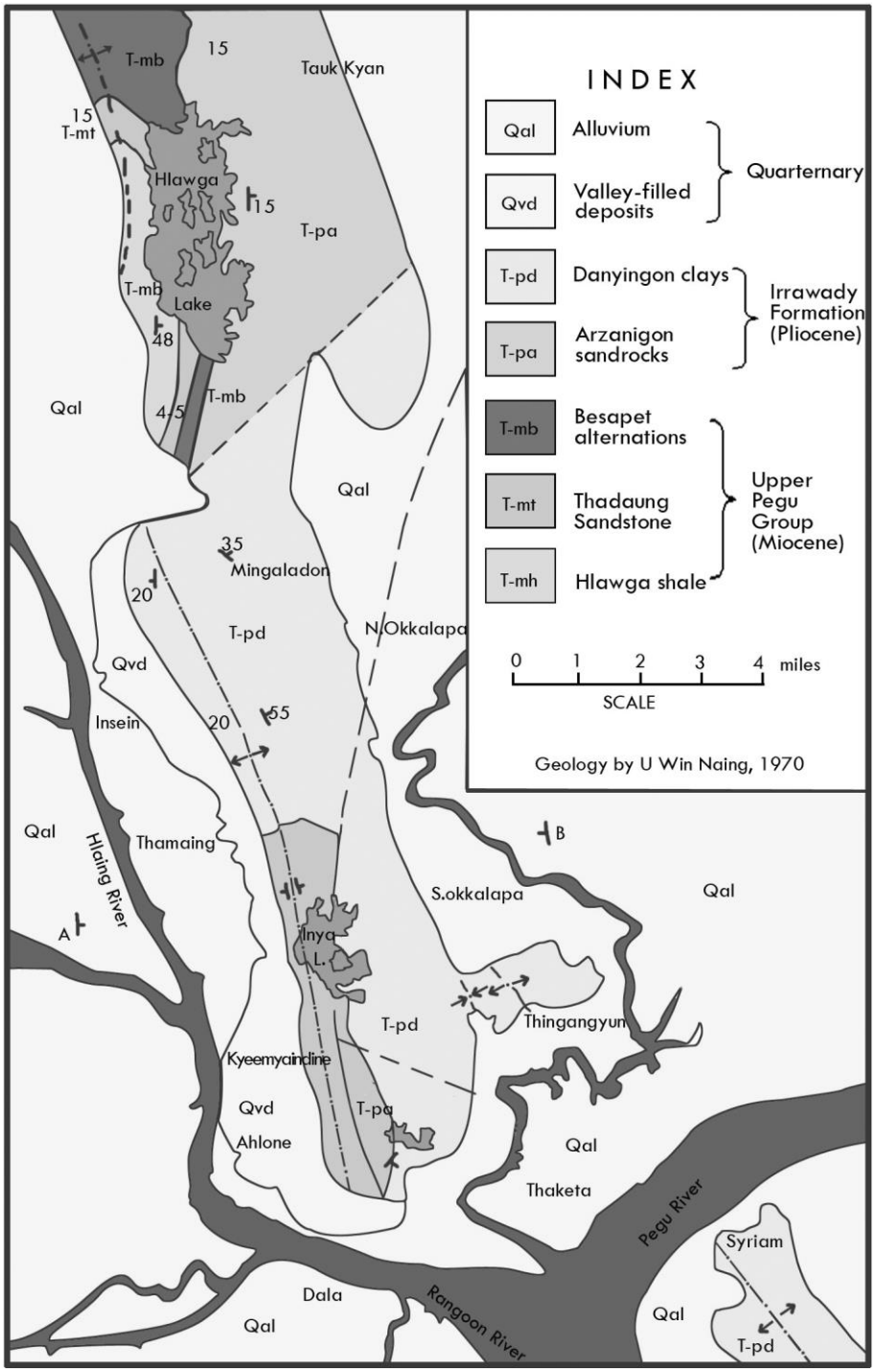


Figure 4-9 Geological Map of Yangon Region

4.4.3. 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). [2]

4.4.4. 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]

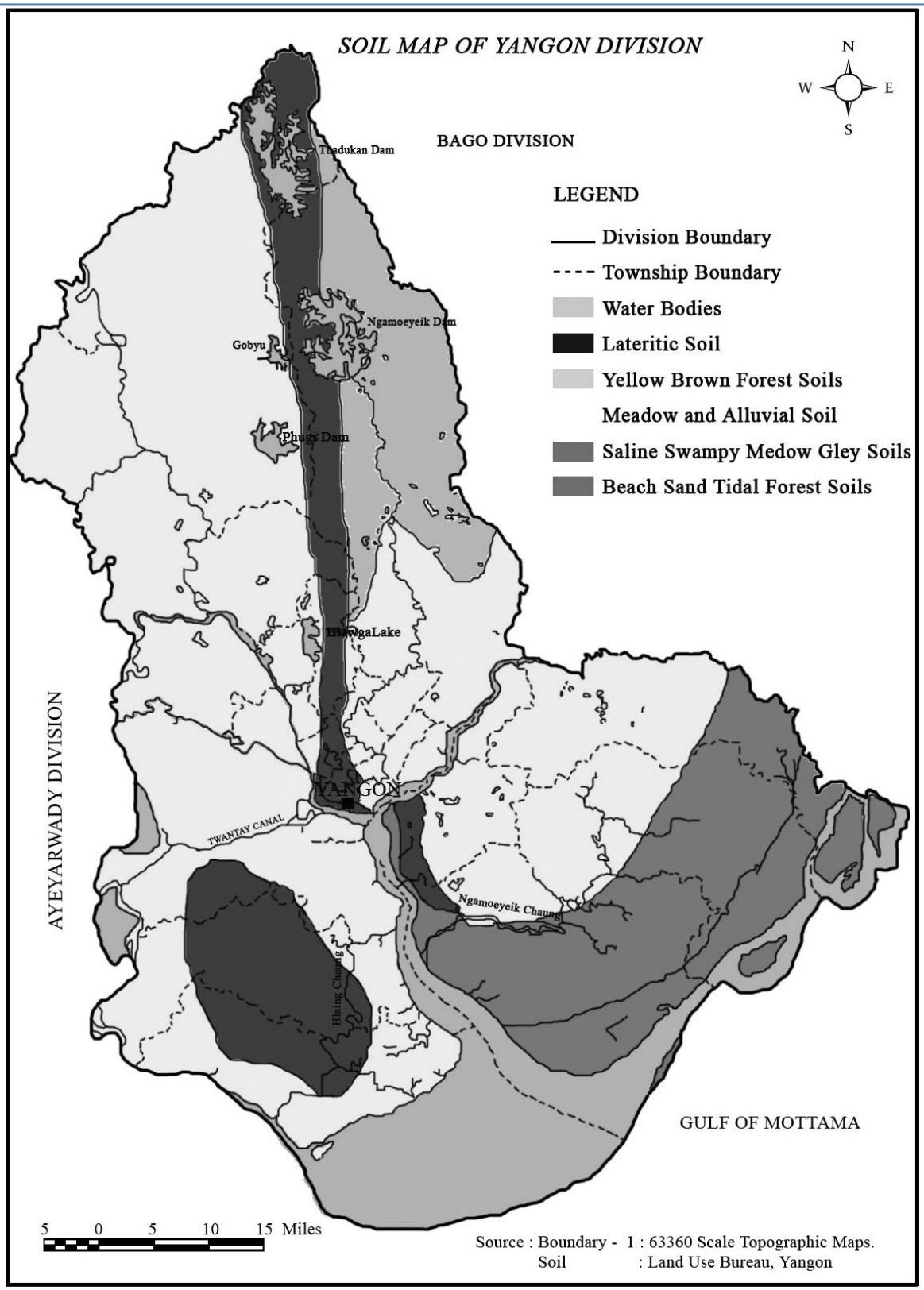


Figure 4-10 Soil map of Yangon (Source: Land use of Bureau of Yangon)

4.4.5. **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 Pazundaung River which flows east of the site in a southerly direction to converge into the Yangon River. 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]

4.4.6. **Climate and Meteorology**

4.4.6.1. 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. [1]

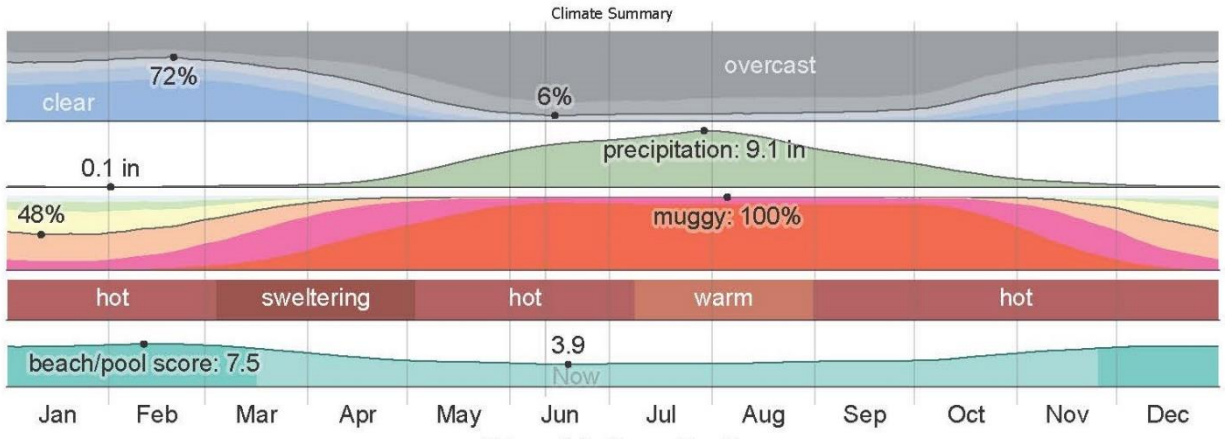


Figure 4-11 Climate Summary of Yangon Region

4.4.6.2. 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. [1]

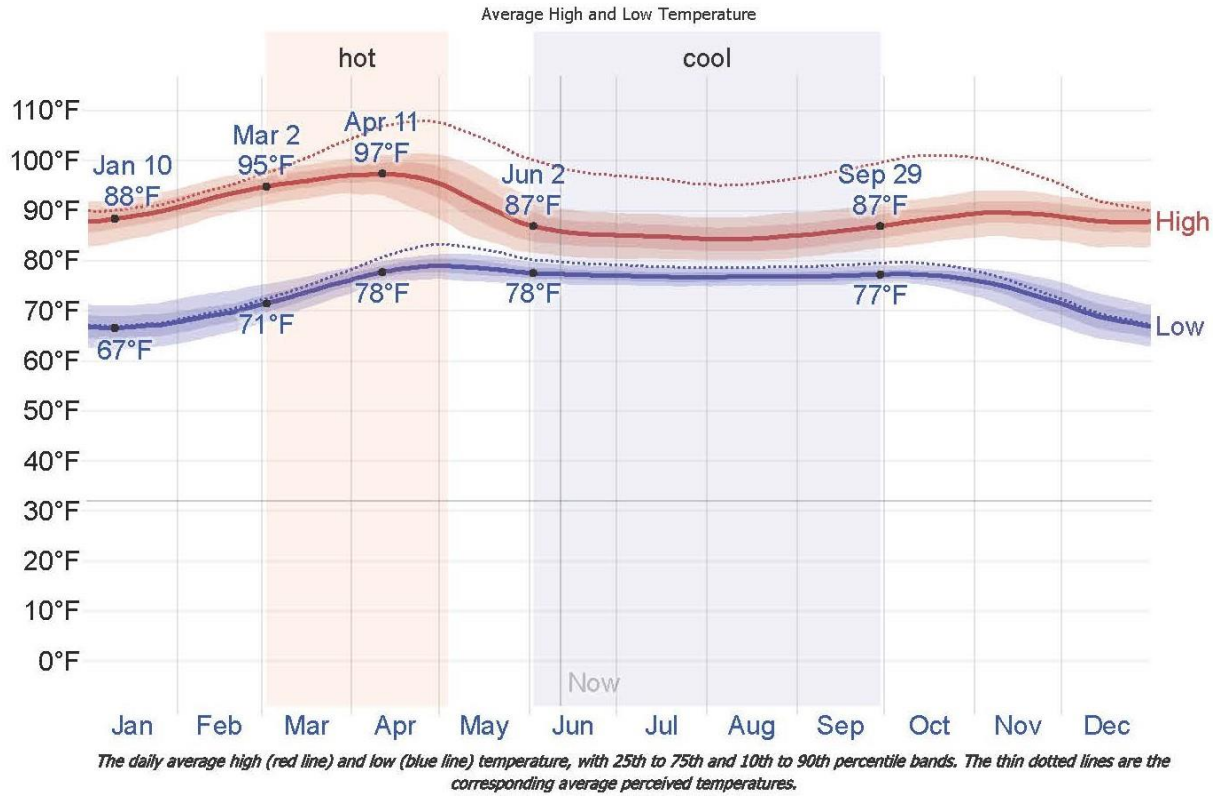


Figure 4-12 Average Temperature of Yangon Region

4.4.6.3. 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. [1]

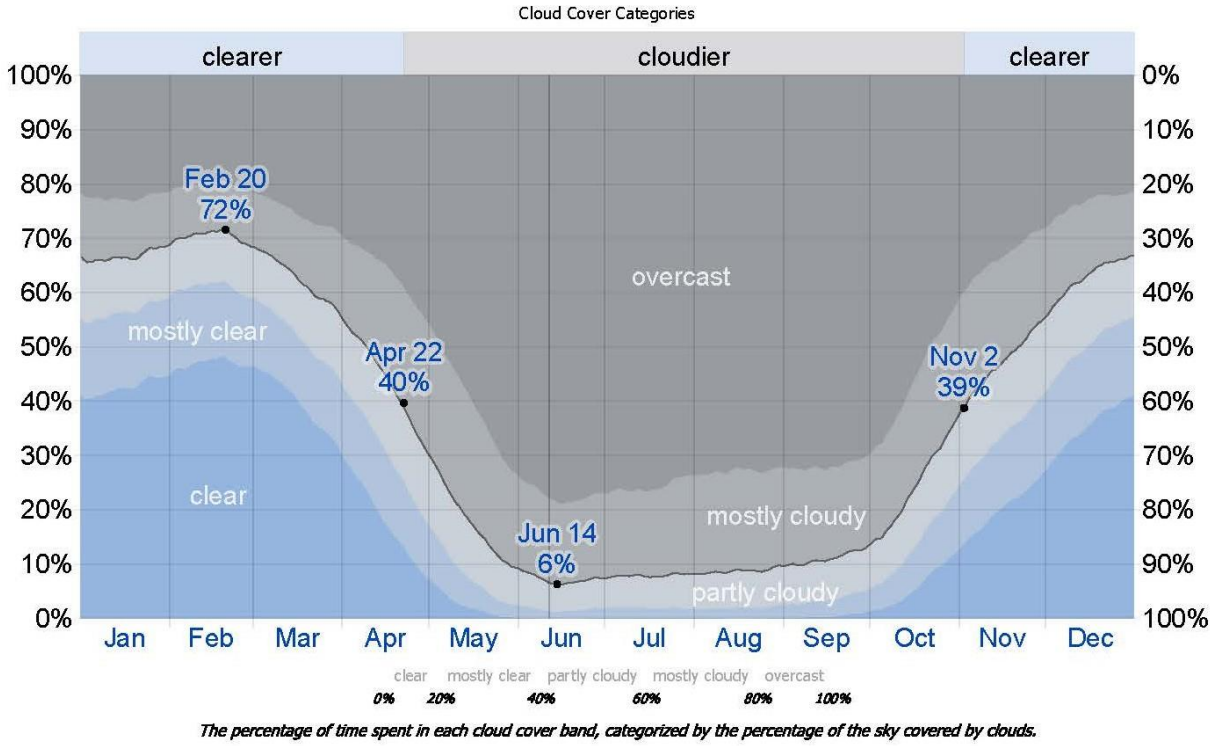


Figure 4-13 Cloud Cover Categories

4.4.6.4. 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. [1]

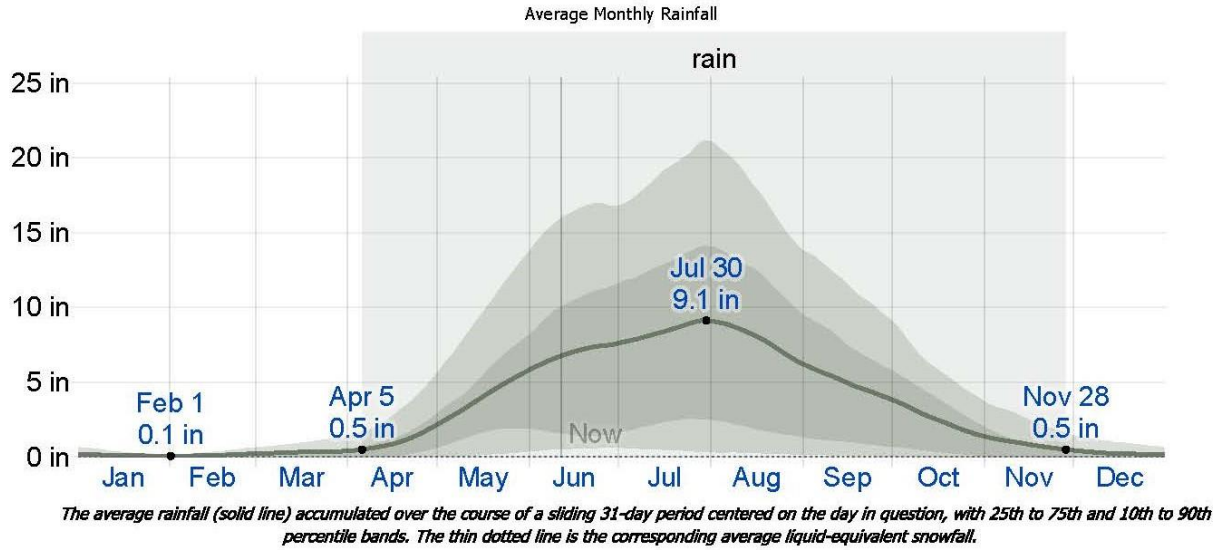


Figure 4-14 Average Monthly Rainfall at Yangon Region

Table 4-12 Annual rainfall and temperature

Year	Rainfall		Temperature	
	Raining day	Rainfall value (Inches)	Summer season Max (°C)	Winter season Min (°C)
2015-2016	105	84.91	34	30
2016-2017	116	85.89	34	30
2017-2018	97	86.70	38	30
2018-2019	69	132	41	30

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

4.4.6.5. 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. [1]

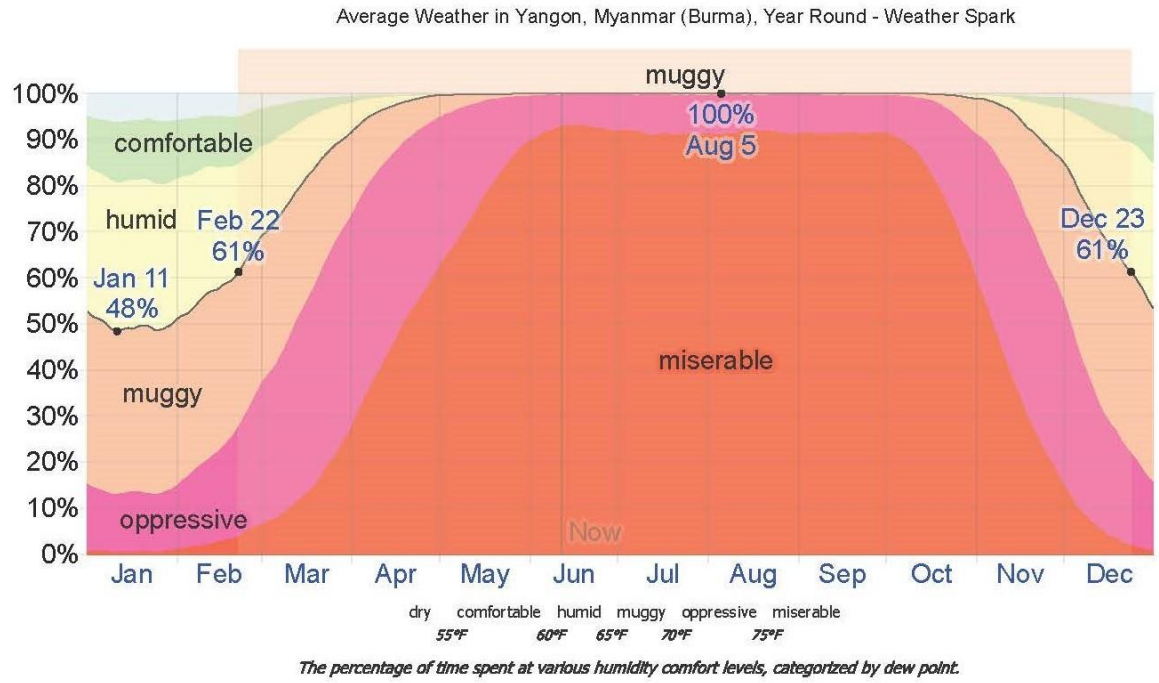


Figure 4-15 Humidity of Yangon

4.4.6.6. 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 winder 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. [1]

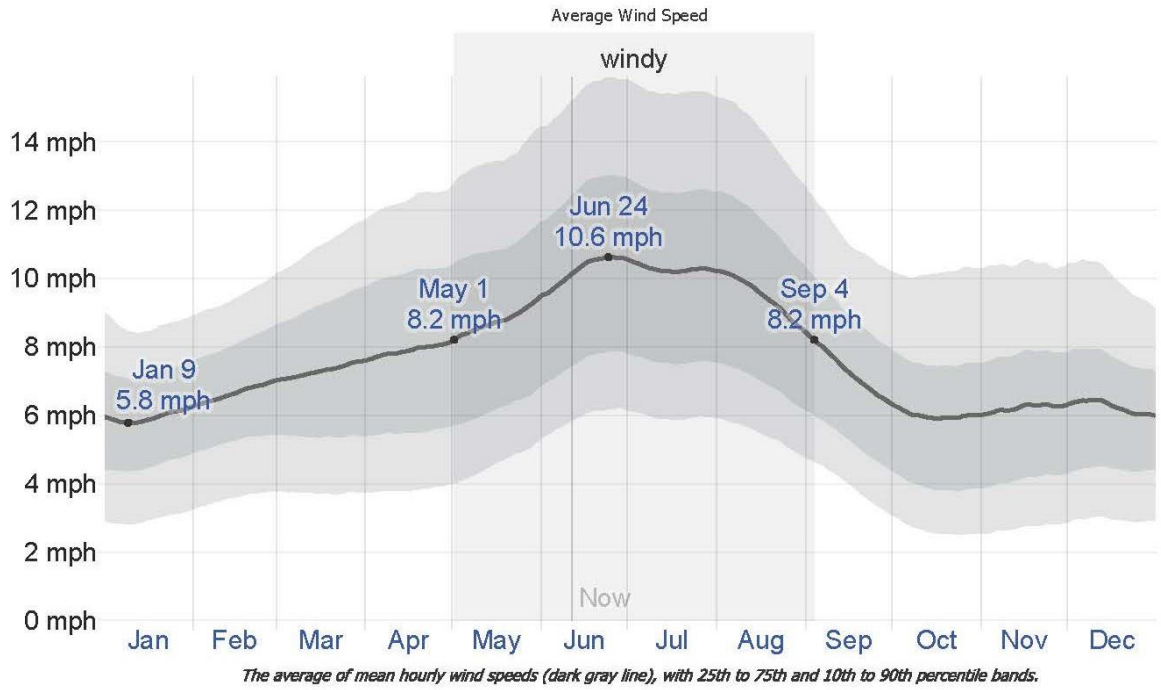


Figure 4-16 Average Wind Speed in Yangon

4.5. BIOLOGICAL COMPONENT (SECONDARY DATA)

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

Ecological Resources	Existing condition
Fisheries, aquatic biology	The nearest river is Pan Hlaing River. Fresh water fish species are residing in the river
Wildlife	Non existence
Forests	Non existence
Rare or endangered species	Non existence
Protected areas	Non existence
Coastal resources	A few mangrove species observed at the river bank of Pan Hlaing River.

4.6. SOCIO-ECONOMIC COMPONENT

4.6.1. **Population**

Myanmar Cotton Spinning Garment Accessories Co., Ltd. is located at Hlaing Thar Yar Township in Yangon Region. In 2019, the population of Hlaing Thar Yar Township is about 440,949

people as present in Table 4-13 Population of Males and Females at Hlaing Thar Yar Township (2019). [1]

Table 4-13 Population of Males and Females at Hlaing Thar Yar Township (2019)

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

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

4.6.2. Religion

The different kinds of religion present in Hlaing Thar Yar Township are shown in Table 4-14. More than 90% of the people living in the township are Buddhists. [1]

Table 4-14 Religion in Hlaing Thar Yar Township (2019)

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

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

4.6.3. Local Economy

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

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

4.6.4. Public Infrastructure and Access

4.6.4.1. Communication and Transportation

Major transportation route in Haling Thar Yar Township are railway, port, and car road as presented in Table 4-15. [1]

Table 4-15 Transportation Route

Categories		Township		Miles
Water Route		From Pan Hlaing River and Hlaing confluence	To Ngwe Pin Lae Industrial	8
No.	**Township**	**Bus Stop**	**Transportation path**	**Type of Bus**	**No. of Bus**
1	Hlaing Thar Yar	16	11	YBS	125

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

4.6.4.2. Electricity

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

4.6.4.3. Education

Location of major schools were situated i.e. basic education primary school (B.E.P.S.), basic education middle school (B.E.M.S), basic education high school (B.E.H.S) and university, in the Hlaing Thar Yar Township. The name and the located village tract/ ward of schools are described in Table 4-16.[1]

Table 4-16 List of major school in Hlaing Thar Yar Township

No.	Name of School	Location
1.	West Yangon Technological University	Outside Padan Village Tract
2.	BEHS (1)	N0 (2) ward
3.	BEHS (2)	No (12) ward
4.	BEHS (3)	NO (17). Ward
5.	BEHS (4)	NO (5) ward
6.	BEHS (5)	NO (7) ward
7.	BEHS (6)	Yae Okken
8.	BEHS (7)	NO (16) ward
9.	BEHS (8)	NO (20) ward
10.	BEMS (Branch) (1)	NO (6). Ward
11.	BEMS (Branch) (2)	Nyaung Village Tract
12.	BEMS (Branch) (3)	Dine Su, Nyaung Village

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

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

4.6.4.4. Health Status

The diseases of high prevalence reported in 2019 are Tuberculosis (TB), followed by Acute Respiratory Infection (ARI), Diarrhea, TB and snakebites. With reference to the Township Health Profile 2019 of Hlaing Thar Yar Township, no accidental work injuries reported to the township hospital in 2013. The common diseases are shown in Table 4-17. [1]

Table 4-17 Common Diseases in the Hlaing Thar Yar Township

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

Table 4-18 Lists of hospital in the Hlaing Thar Yar Township

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

Total	331	-

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

4.7. CULTURAL AND VISUAL COMPONEMTS

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

5. ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

5.1. METHODOLOGY FOR THE ASSESSMENTS

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

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

Table 5-1 Impact assessment parameters and its scale

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

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

Significant Point (SP) = (Magnitude + Duration + Extent) * 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

5.2. IMPACT IDENTIFICATION

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

5.2.1. 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 Thar Du Kan Industrial Zone, there may have business opportunities to local people. Local people can have a market by selling foods, snacks and drinks nearby the factory.

5.2.2. Negative Impact

The following Figure 5-1 briefly described the potential negative impacts of the proposed project. There are four main types of impacts; impact on environmental resources, impact on ecological resource, impact on human and impact of waste generation.

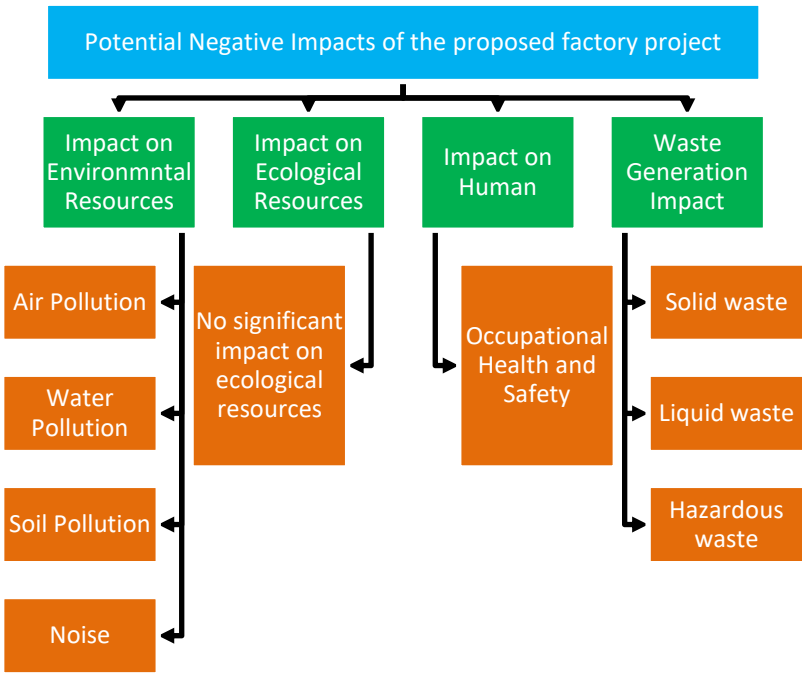


Figure 5-1 Potential negative impact affect from proposed factory project

5.3. IMPACT ON ENVIRONMENTAL RESOURCES

5.3.1. Impact on Air Quality

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 mix-well and grinding the raw materials. Dust particles, CO2 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 and boiler combustion would also be a factor slightly affecting to air quality.

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, 480 kVA and 40 kVA of standby generator will be used for both operation and administration appliances. The proposed project will use annually 6,340 gallons of diesel for emergency use of a generator. The following table shows the amount of CO_2 emission coming from the combustion of fuels.

Burning diesel or other fuels creates exhaust gasses. Diesel generators produce carbon dioxide (CO2), nitrogen oxide (NOx), and particulate matter. These generators and boiler 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 5-2 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 5-3 CO_2 Emission by the Uses of Fuel

No.	Type	Amount(gallon/year)	Equivalent CO2 emission (Kilotons)	Status
1	Diesel for generators	6,340	0.1997	Negligible

Furthermore, likewise the construction phase, negative impact on ambient air quality such as emissions of dust particles emission from the movement of vehicles used for carrying decommissioned materials and gaseous emission from these vehicles and machines can be expected during the decommissioning phase of the proposed project after its lifespan, 50 years.

5.3.2. Impact on Water Quality

During the construction period, water consumption is for implementation of the construction works and domestic water usage by construction workers. Surface water and ground water could be contaminated from the several activities of construction works such as mixing of the concrete, wetting of dry surfaces, washing of the equipment, etc. Moreover, oil spill from the vehicles and machinery can pollute water quality and can enter into the ground water and run into near river during the rainy season. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, impact on water quality is not assessed for this project.

During operation phase of the factory, water is used in the process of spraying the cotton with a liquid mixed with water and glue, but wastewater is not generated because the cotton completely absorbs the liquid. Tube well is the main source of raw water for factory waster use. The raw water is provided for production process and the whole factory use of general office facilities such as canteen, toilets and kitchen. Moreover, sewage disposed from the employees, staffs, oils spill and grease leakage from transporting vehicles and machinery equipment used in operating the production of the project can seriously pollute the quality of underground water source. But the factory plans to use separate waste water channels, septic type toilet system and sewage treatment plants in accordance with YCDC guidelines to avoid potential contaminations and hazards by waste water and sewages. So, it can cause low impact to the water quality.

During the decommissioning phase, oil spill from the demolished vehicles and machinery can penetrate into the ground water quality. Water can also be contaminated by activities related with decommissioning works and waste disposed by workers.

5.3.3. Impact on Soil Quality

During the construction phase, the excavation works from the construction activities must be the major impact on soil. The soil is compacted by the vehicles and the solid waste disposal improperly by the workers can affect the soil quality. Oil spillage from the vehicles could be also polluted to the soil. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, impact on water quality is not assessed for this project.

During the operational phase, there is no significant impact on soil quality due to the project 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.

During the decommissioning phase, transportation of decommissioning materials and transferred of heavy machinery may happen oil leakage and lubricants, and thus it can lead to impact on soil. Moreover, hazardous releases of materials or oil utilized in the infrastructure can contaminate the existing soil during the decommissioning phase.

5.3.4. Impact of Noise

During the construction phase, significant impact on noise and vibration to surrounding environment must be generated from the movements of vehicles, operating the machinery, excavation activities and transportation of equipment and construction materials by heavy trucks. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, the proposed project is located in industrial zone and already finished the construction, the potential

impact on noise and vibration is not assessed and short-term affect must be caused the construction period is temporary.

During the operation phase, noise impact may be a significant impact for production sectors. The significant sources of noise impact activities are the operation of various machinery and equipment listed in for sewing, grinding, water and glue spray, and the emergency used of generator, vehicles and automobile movements (short-term noise) will be noise impacts sources. According to the noise results of 8 hours continuously measurement, at the source of operation area inside the factory and within the factory area are slightly exceeding the noise level of 70 dB of NEQ (emission) guideline. Therefore, no obvious influence can be caused expected to environment.

During the decommissioning phase, the heavy vehicles, machineries and equipment used for decommissioning activities can affect the noise level and vibration of the area.

5.4. IMPACT ON ECOLOGICAL RESOURCES

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.

5.5. IMPACT ON HUMAN

5.5.1. Socio-economic

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.

5.5.2. Occupational Health and Safety

During the construction phase, significant accidents and injuries like electric shocks, falling from heights, chemical exposure, crushing injury, fire hazards can be occurred due to the construction activities including metal grinding and cutting, concrete work and welding the metals. Moreover, accidents and injuries to workers and local communities could be caused from heavy vehicles movement for the transport of construction materials and equipment. Small injuries due to slips, headache and sickness must be caused of the noise, air pollution and odor could also be affected to the workers and local people. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, impact on water quality is not assessed for this project.

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.

During the decommissioning phase, activities related with decommissioning process can cause injuries and can affect the health of decommissioning workers.

5.6. WASTE DISPOSAL

5.6.1. 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 and regular and proper disposal will be done in accordance with YCDC guidelines.

In the operation phase, major solid wastes of the factory may be generated form production lines. Factory shall use fabric, cotton, thread and glue as raw materials. The residual pieces of the cotton fabric from the production lines and used glue containers are the main source of solid waste. In addition to factory solid waste, canteen, kitchen and dormitory will produce solid wastes mainly personal remnants, household wastes and food residues.

5.6.2. 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) and regular monitoring should be done in cooperation with YCDC and follow the YCDC guidelines for proper disposal.

5.7. PROJECT ACTIVITIES AND ITS SIGNIFICANT IMPACTS

The relative importance of each impact is assessed based on the understanding that general mitigation measures will be integrated into the baseline project. Therefore, when the general mitigation measures reduce impacts to the point of rendering them negligible, they are excluded from further analysis. Once the significance of the impact is established as more than negligible, it is described and additional, specific mitigation measures may be proposed to allow optimal integration of the project into the environment.

Table 5-4 Evaluation and Perdition of Significant Impacts

Categories	Project Activities	Significant of Potential Impacts					Impact Significance
		M	D	E	P	SP	
Construction Phase; It is not assessment in this phase, because of construction is already completed during EMP preparation.							
Operation Phase							
Air Pollution	• Dust and GHGs emission from vehicles used for transporting raw materials and final products • Particulate matters emission from the activities of production process • Emission from emergency diesel generator	3	4	1	3	24	Low
Water Pollution	• Sewage disposed of from the toilets • Oil spill and grease leaks from transporting vehicles and machinery equipment used in operation phase	2	4	2	3	24	Low
Soil Contamination	• Accidental spillage of oil used by vehicles operating	1	4	1	1	6	Very Low
Noise and Vibration	• Generating noise from the production machinery • Noise from the generating of the emergency generators	3	4	1	3	24	Low
Fire Hazard	• Poor electrical installations • waste disposed area • Raw materials storage	3	4	2	4	36	Moderate
Occupational Health and Safety	• Accidental cases cause by operating machines. • Electricity and emergency diesel generators. • Unloading, mixing, cutting, pressing and packaging activities. • Accidental cases of thermic fluid heater	3	4	1	4	32	Moderate
Solid Waste	• residual pieces of cotton fabric from the production lines • empty glue containers • Waste from packaging materials • Waste office	3	4	1	2	16	Low

Categories	Project Activities	Significant of Potential Impacts					Impact Significance
		M	D	E	P	SP	
Liquid Waste	• Septic system and sewage. • Domestic liquid waste disposal from office	2	4	2	3	24	Low
Hazardous Waste	• Engine oil leaks, spills at diesel storage and during fuel refueling. • Used oil and lubricant discharged from the maintenance of vehicles and machines.	3	4	1	3	24	Low
Social-economic Condition	• Job opportunities for local people	-	-	-	-	-	Positive Impact
Decommissioning Phase							
Air pollution	• Decommissioning of buildings and related materials • Transportation of demolished materials	3	1	2	4	24	Low
Water pollution	• Sewage form decommissioning workers • Demolition machinery equipment	3	1	2	3	18	Low
Soil Contamination	• Decommissioning of buildings and related materials • Transportation of demolished materials	3	1	1	3	15	Low
Noise Pollution and Vibration	• Decommission activities • Transportation of demolished materials	3	1	2	3	18	Low
Waste disposal	• Sewage system • Demolished debris such as bricks, concrete materials	2	1	1	3	12	Very Low
Hazardous waste	• Used lubricants from decommissioning vehicles and machines	2	1	1	3	12	Very Low
Occupational Health and Safety (Accidents, Injuries)	• Decommissioning activities • Transportation of demolished materials	3	1	2	3	18	Low

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 2 moderate significance impact on environment and human (Fire and occupational health and safety). 1 very low significant impact on environment and human (soil). 6 low significant impact on environment and human (air, water, noise and vibration, solid, liquid waste 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.

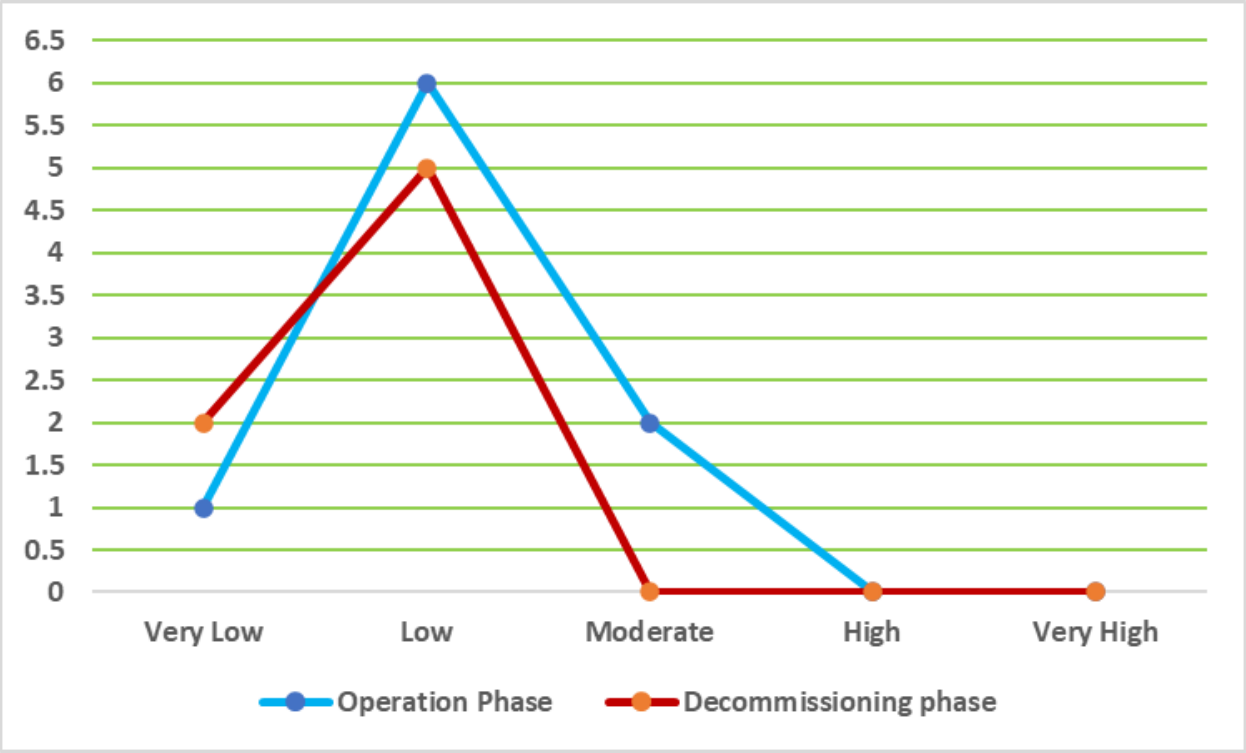


Figure 5-2 Impact significance of the proposed factory project

5.8. MITIGATION MEASURES OF IMPACT ON ENVIRONMENTAL RESOURCES

5.8.1. Recommended Air Impact Mitigation Measures

During the operation phases, ventilation system of the factory is enough for the workers. To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. Since the factory compound area is paved with concrete, dust emission from the movements of vehicles and cars is not significant. The project proponent must install good exhaust system at the kitchen to reduce adverse impacts of indoor air quality. The factory uses chimney for generator and boiler through which the flue gas is emitted for reducing the impact of stack emission on environment. Monitoring and check installed cyclones and ventilation system. Ensuring vehicles, compressor and generator are well maintained.

During the decommissioning phases, the impact on air quality can be controllable and reduced to minimum level and minimized dust emissions from material handling sources. Sprinkling water on the top soil can reduce dust emission from the demolishing activities. In the proposed project area, vehicle movements should be limit and maintain and check the vehicles and machineries regularly. Burning the demolished materials and residual wastes must not be allowed.

Figure 5-3 Ventilation System

5.8.2. Mitigation Measure of Impact on Water

During the operation phase, water discharge from the factory site will be treated by silts track tank before discharging. Water effluent levels should be within acceptable limit of the National Environmental Quality (Emissions) Guidelines values. 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 5-4. Besides, the factory plans to use separate wastewater channels, septic type toilet system. Wastewater 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 5-4 Drainage and Septic tank in project area

During the decommissioning phases, appropriate sanitary facilities should be provided for demolishing workers. An accidental spill of fuel and oil should be avoided. Wastes generated from the demolishing activities should not be disposed directly into the drainage channels.

5.8.3. Mitigation Measure of Impact on Soil Contaminate

During the operation phase, the compound area of the factory area will be paved with concrete and hence, contamination due to the oil spillage at this area is insignificant. But refilling fuel must be done with great care for preventing spillage.

During the decommissioning phase, impact on soil can be mitigated by using modernized machineries, these machines would be maintained regularly and isolated maintenance area would be identified. Any accidental spills of fuel, oil or other hazardous waste must be avoided. Construction wastes and demolishing debris should be disposed properly.

5.8.4. Mitigation Measure of Impact on Noise

During the operation phase, the factory uses low noise machines for project operation. Generators are kept in a separate building within the factory area. To minimize noise impact on employees, the factory supplied earmuffs and ear plugs to them working near the noisy machines. All preventive measures such as regular operation and maintenance of pump motors and compressor should be carried out and enclosures will be provided to abate noise levels at source.

During the decommissioning phases, temporary noise pollution can be controlled by planning regular maintenance for decommissioning vehicles and machines. Moreover, construction and decommissioning activities should not be worked during nighttime.

5.9. MITIGATION MEASURES OF IMPACT ON HUMAN

5.9.1. Mitigation Measures on Fire Hazard

The project proponent has provided 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 is also constructed with the capacity of 17,235 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 5-5.

Figure 5-5 Firefighting plan and Escape plan

5.9.2. Mitigation Measure for Occupational Health and Safety

The factory has made an agreement with Thu Kha Su San Clinic and Laboratory Center for healthcare of the employees. 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 mask, 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. The project proponent must manage the drainage systems of the factory to prevent health risk of the workers.

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 limits are mentioned in Table 5-5. According to OSHA, 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 5-5 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
5	100
1	105
½	110
¼	115

http:// www. Osha.gov/pls/oshaweb/owadisp

5.9.3. Mitigation Measure of Waste Generation

During the operation phase, recycle waste such as empty glue containers and cotton fibers are placed in a waste storage area inside the factory compound. Used glue containers are hand over to local buyer and cotton fibers are 100 percent reused in production. Other solid waste from the whole factory (such as from human, kitchen, packing) will be disposed by using YCDC's service.

During the decommissioning phase, some of demolished solid wastes must be recycled and the other solid wastes should be stored in dedicated waste storage area in the project site and transferred to YCDC for final disposal.

Figure 5-6 Waste Management

6. ENVIRONMENTAL MANAGEMENT PROGRAM

6.1. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

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

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

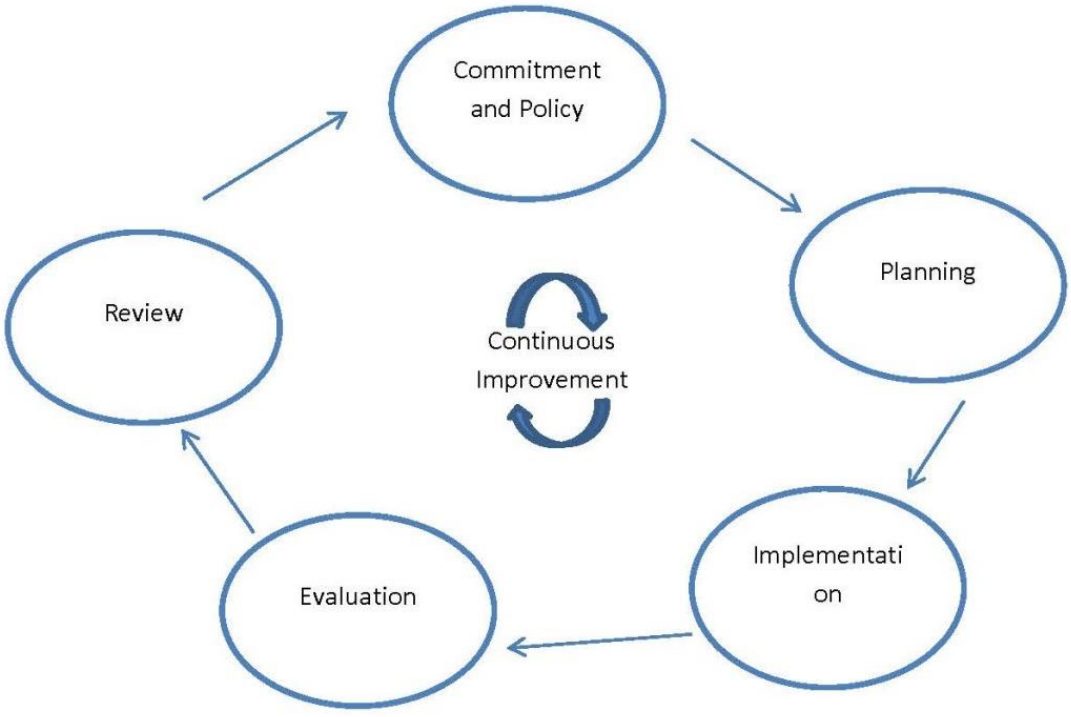


Figure 6-1 Continuous Improvement Circle

- **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.

6.2. INSTITUTIONAL REQUIREMENT

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:

MYANMAR COTTON SPINNING GARMENT ACCESSORIES 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 MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED for EMP implementation facilities.

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

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

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

6.3. STRUCTURE AND RESPONSIBILITIES FOR THE EMP DEVELOPMENT AND IMPLEMENTATION

MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED shall manage the development of the proposed project. The project proponent should appoint Health, Safety and Environment (HSE) issues throughout the duration of the project phases. HSE team is responsible for implementation and monitoring of EMP and Environmental 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. 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.

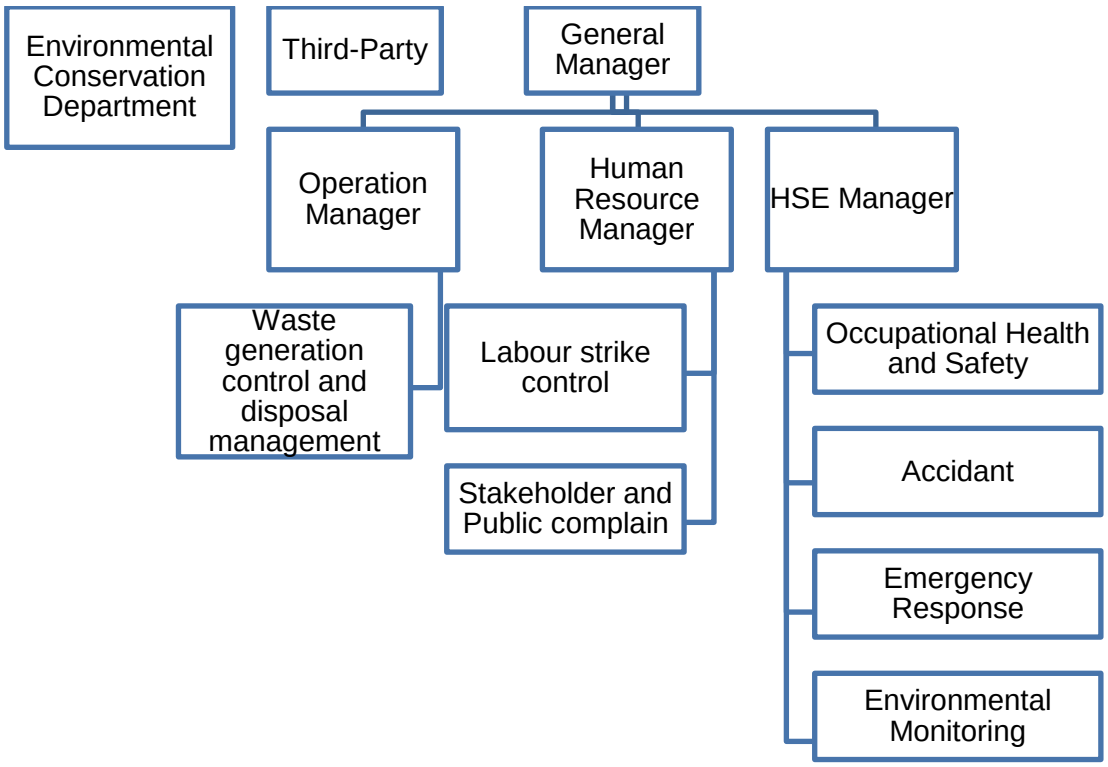


Figure 6-2 Organization Structure of EMP Implementation

Table 6-1 Responsibilities of HSE members

Roles	Responsibilities
General Manager	The General Manager will be assisted by the Operations Manager and also the HR and HSE Officer. In terms of environmental protection commitments, the Operation Manager will be the key driving force and will be responsible for: • Establishing overall environmental direction and policy • Ensuring the implementation of the EMP • Ensuring investigation of all environmental incidents are reviewed and that reports are submitted on time • Ensuring an effective system of internal and external communication is in place • Providing advice regarding the environmental program

Roles	Responsibilities
Operation Manager	The Operation Manager will assist the General Manager in looking into the overall environmental matters during the operational phase of the Project. The Operation Engineer will also be responsible for: • Adherence to the overall environmental direction and policy • Ensuring the implementation of the recommended actions in the investigation of all environmental incidents • Managing resources for operation wastes
H R Manager	The HR Manager will carry out the day-to-day management of workers and social issues in the factory. The HR Manager will be responsible for: • Assisting the management in publicising and implementing corporate and local policies, objectives and programs • Maintaining key environmental-related documents and information • Communicating/ liaising with the local authorities on environmental issues
HSE Officer	The HSE Officer will be the key person in charge of all environmental matters pertaining to the site. The HSE Officer will be responsible for: • Coordinating the implementation of environmental programs, including monitoring of the project site environmental performance • Performing periodic internal environmental audits and inspections to ensure compliance with the legal environmental requirements • Ensure a monitoring system is in place to track and report all health, safety and environmental incidents; • Carry out a thorough initial site inspection of environmental controls prior to work commencement; • Record and provide a written report to the General Manager and production team of non-conformances with the EMP and require the HR Manager to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

6.4. ENVIRONMENTAL MANAGEMENT ACTION

The EMP for Myanmar Cotton Spinning Garment Accessories Co., Ltd. Has been prepared to added potential issues based upon discussion with factory management, workers, local community view, stakeholder consultation and the site visit. The following environmental impact issues which require environmental management plans based upon the potential impact's activities of Myanmar Cotton Spinning Garment Accessories Co., Ltd. are as follows:

6.4.1. Air pollution/ Dust Management Plan

Objective	➢ To minimize the adverse impact to air quality caused by stack gas emission from generator and also dust management generated from vehicular movement. ➢ To comply with relevant government rules
Relevant Government Law and Rule	➢ National Environmental Quality (Emission) Guideline 2015, ➢ Motor Vehicles Act (2015), ➢ Boiler Law (2015)

Time Frame	➢ Entire life spans of proposed project operation	
Management Action	➢ Must be plant around the proposed project to reduce carbon emission. ➢ There is no open burning of waste materials at the site. ➢ Must be control air pollution, the vehicles, generators and machineries have to check and maintain regularly. ➢ The factory should use chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment. ➢ Must be ensuring vehicles, compressor and generator are well maintained. ➢ Provide sufficient personal protective equipment (PPE) employees and encourage them to wear masks and work.	
Monitoring and Reporting	Frequency	Biannually
	Monitoring Point	Indoor and Outdoor of proposed project
	Parameters	$PM_{2.5}$, PM_{10}, SO_2, NO_2, O_3, CO
Estimated Cost	1,600,000 Kyats per year	
Responsible Person	Management of the proposed factory; ▪ Head of maintenance: Total implementation of above of air pollution management plan ▪ Production manager: Air quality in the production area is good enough ▪ Manager: To hire organization/ independent third-party testing air quality ▪ EHS officer: Monitor the hygiene of ambient air quality in surrounding of the factory	

6.4.2. **Noise Management Plan**

Objective	➢ To maintain low noise exposures, such that human health and well-being are protected. The specific objectives of noise management are to develop criteria for the maximum safe noise exposure levels, and to promote noise assessment and control as part of environmental health programmes.
Relevant Government Law and Rule	➢ National Environmental Quality (Emission) Guideline 2015
Time Frame	➢ Throughout the project life

Management Action	➢ Building noise insulated generator room and ensure satisfactory maintenance of relevant equipment ➢ Impose speed limit to track and vehicles at the transportation route. ➢ Provide sufficient personal protective equipment (PPE) at the work place ➢ All the related personnel will be provided proper training about the relevant issues and ensure PPE wear during working in noisy area.	
Monitoring and Reporting	Frequency	Biannually
	Monitoring Point	Operation area (especially sewing)
	Parameters	Sound Decibel
Estimated Cost	500,000 Kyats per year	
Responsible Person	HSE Manager or Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.	

6.4.3. **Fire Management Plan**

Objective	➢ To ensure that fire control practices are implemented on site to minimise the risk of fire from site operations and bush fires
Relevant Government Law and Rule	➢ Myanmar Fire Brigade Law 2015
Time Frame	➢ Entire life spans of proposed project operation
Management Action	➢ Must be provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. ➢ Must be indicated the emergency exit and assembly point in public area. ➢ Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening. ➢ The emergency fire alarms are installed at the factory for alerting the workers in case of fire. ➢ The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases.
Monitoring and Reporting	To check monthly Visual inspection, Firefighting equipment (fire extinguish, firefighting hose, portable fire pumps, fire hose reels, fire monitor and firefighting nozzles)
Estimated Cost	1,200,000 Kyats per year

Responsible Person	HSE Manager, Operation Manager or Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.

6.4.4. **Occupational Safety and Health Management Plan**

Objective	➢ To provide a broad framework for improving standards of workplace health and safety to reduce work-related injury and illness.
Relevant Government Law and Rule	➢ Public Health Law (1972), Prevention and Control of Communicable Diseases Law 1995 (Amendment 2011), Occupational Safety and Health Law (2019)
Time Frame	➢ Entire life spans of proposed project
Management Action	➢ First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. ➢ According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. ➢ Personal Protective Equipment (PPE) like earmuffs, safety gloves, helmets and goggles are provided for each department. ➢ To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures. ➢ Manage the drainage systems of the factory to prevent health risk of the workers. ➢ The maximum allowable noise level for workers is 90dB(A) for 8hours exposure a day. Thus, adequate protective noise impact measures in the form of ear muffs/ear plugs to the workers working in high noise areas.
Monitoring and Reporting	➢ Weekly check fire extinguishers and water hydrant in position ➢ Daily inspect that all fire exist are open ➢ Servicing fire extinguisher and records accidents
Estimated Cost	1,000,000 Kyats per year
Responsible Person	HSE Manager, Operation Manager or Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.

6.4.5. **Water Consumption Management Plan**

Objectives:	• The water consumption management is aimed at minimizing ground water use
Relevant government law and rule	• The Underground Water Act (1930)

Time Frame	• Once in a year throughout the factory life
Management Plan	• Install water meter for internal control of water consumption • All staff trains and makes aware conservation practices and proper methods of water use must be place in toilets and other areas of water consumption • The contamination of water is avoided by suitable management of oil and fuel used in machineries and vehicles • Trees plantation surrounding the factory
Monitoring & Reporting	• Daily visual inspections
Estimated Cost	• 500,000 Kyats per year
Responsible person	Manager • Arrange audit on water usage controls environmental officer

6.4.6. **Solid Waste Management Plan**

Objective	➢ To assess the activities involved for the proposed and determine the type, nature and estimated volumes of waste to be generated ➢ To identify any potential environmental impacts from the generation of waste at the site
Relevant Government Law and Rule	➢ Yangon City Development Committee Law (2018), National Waste Management Strategy and Master Plan (2018-2030)
Time Frame	➢ Entire life spans of proposed project
Management Action	➢ Must be provides separate garbage bins at each building. ➢ All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area ➢ Final wastes should be disposed by using YCDC's service.
Monitoring and Reporting	➢ Daily waste has to be collected and handover to YCDC waste collector ➢ The inventory record of waste disposal will be maintained as proof for proper management as designed
Estimated Cost	600,000 Kyats per year
Responsible Person	Manager (HR) ▪ Responsible for overall site cleanliness and waste management ▪ Regular waste collection to minimize excessive waste storage

6.4.7. **Liquid Waste Management Plan (Wastewater)**

Objective	➢ To implementation plan for the management of liquid waste from collection, through treatment and resource recovery, to residual disposal

Relevant Government Law and Rule	➢ National Environmental Quality (Emission) Guidelines (2015)	
Time Frame	➢ Entire life spans of proposed project	
Management Action	➢ Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.	
Monitoring and Reporting	Frequency	Biannually
	Parameters	pH, Turbidity, Conductivity, Iron, Sulfide, TSS, TDS, Manganese, COD, BOD, Cyanide, Copper, Zinc, Carbonate
	Proper maintenance of drainage and sewerage system will be conducted periodically	
Estimated Cost	600,000 Kyats per year	
Responsible Person	Manager: To hire organization/ Independent third-party testing wastewater quality EHS officer: Monitor the condition of factory's drainage and sewerage system	

6.4.8. **Hazardous Waste Management Plan**

Objective	➢ Ensure safe treatment, storage, transportation, and disposal; Prevent the generation of hazardous waste through pollution prevention; Reduce the amount of any hazardous substance, pollutant, or contaminant released into the environment.
Relevant Government Law and Rule	➢ Regarding hazardous waste, Existing laws and regulations Procedures, instructions, international agreements, and guidelines will be strictly followed.
Time Frame	➢ Entire life spans of the factory operation
Management Action	➢ As hazardous wastes release, old engine oil from used vehicles. Return bags, boxes and house paint and damaged light fixtures. release from project. Waste water exceeding the standard release from project. ➢ Old lubricants from machinery and transport vehicles will be properly stored. To reduce the spillage of lubricating oil and engine oil and to avoid the impact of hazardous waste. It will be used systematically to minimize wastage. Measures to be taken in advance will be prepared to ensure that there is no impact due to hazardous waste. ➢ Solid waste by-products and hazardous waste collection; accumulation transportation and disposal truck will be emphasized by garbage once two weeks. ➢ Provision and inspection of waste sorting, hazardous bin, collecting, transporting and disposal methods and places.

	➢ Periodic inspection preventive maintenance; aware the workers about hazardous waste by necessary training. ➢ Regular hazardous waste spill & drill operation is conducted ➢ Workers are informed about what to do for hazardous waste. Other relevant safety instruction of hazardous waste management shall be given to workers by training ➢ Workers are aware of dangers from hazards of hazardous wastes. ➢ A medical team has been prepared for primary treatment (First Aid)
Monitoring & Reporting	Weekly check waste sorting, hazardous bin, collecting, transporting and disposal methods and places.
Estimated Cost	300,000 Kyats per year
Responsible Person	Manager and EHS officer Regular hazardous waste spill & drill operation is conducted Responsible for Weekly check waste sorting, hazardous bin, collecting, transporting and disposal methods and places

6.4.9. **Energy Management Plan**

Objectives:	➢ To improve energy efficiency, reduce cost, optimize capital investment, reduce environmental and greenhouse gas emissions, and conserve natural resources
Relevant government law and rule	➢ National Energy Management Committee (Myanmar Energy Master Plan 2015)
Time Frame	Once in a year throughout the factory life
Management Action	➢ Energy saving light installed in different area of the factory for saving energy ➢ Used of energy saving devices must be installed ➢ Ensure that good housekeeping measures such as turning off equipment and lights when not in use
Monitoring & Reporting	Conduct annual energy efficiency of adult to find out the scope for energy saving
Estimated cost	Approximately 1,000,000 Kyats per year
Responsibility	Manager ➢ To arrange energy, audit technical personnel ➢ To monitor and record electricity consumption, other related energy issues and take necessary actions if any problem arises

6.4.10. **Emergency Response and Disaster Management Plan**

Objectives:	➢ To reduce the harmful effects of all hazards, including disasters. The World Health Organization defines an emergency as the state in which normal procedures are interrupted, and immediate measures (management) need to be taken to prevent it from becoming a disaster, which is even harder to recover from.

Relevant government law and rule	➢ The Employment and Skill Development Law (August 2013), ILO guide to Myanmar Labour Law (2017)
Time Frame	➢ Entire life spans of the factory operation
Management Action	➢ The factory management has taken proper measures to handle any emergency situation like fire, earthquake, flood and storm ➢ Provision and inspection of firefighting equipment and fire hydrant system in all the sections ➢ A detail evaluation plan (fire exist, emergency exit door, etc.) is established and communicated with workers ➢ Periodic inspection of safety relief valve provided with pressure vessels and equipment, preventive maintenance; aware the workers about electric shock by necessary training. ➢ Regular fire drill operation is conducted ➢ Workers are informed about what to do in earthquake like stay in a safe place such as under table of desk, not to try move outside during earthquake, workers who will be outside during earthquake shall remain stay out of the building, trees, lump post, etc. Other relevant safety instruction of emergency situation it informed to workers by training ➢ Workers are aware of dangers from physical hazards such as obstacles covered by floodwater (storm debris, drainage opening, ground erosion) and from displaced reptiles (Snake) or other animals. ➢ A medical team has been prepared for primary treatment (First Aid) ➢ Prepare an emergency contact directory consisting contact numbers of nearest fire service, local police station, hospitals, etc. and display it in a place that everybody can see it easy. ➢ Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management ➢ Ensure proper training of the employees about the disaster management, fire safety as well as occupational health and safety
Monitoring & Reporting	Weekly check fire extinguishers and water hydrant in position Daily inspect that all fire exist are open Servicing fire extinguisher and records accidents,
Estimated cost	Approximately 1,500,000 Kyats per year
Responsibility	Manager and EHS officer ➢ Arrange firefighting training after every 3 months ➢ Responsible for fire control and response ➢ Monitoring daily danger warning and bans

Note: If the amount described above is not enough at the time of implementation, it will be used up to a sufficient amount.

6.5. ENVIRONMENTAL MONITORING SCHEDULE AND REPORTING

The EMoP cell members responsible may conduct daily, weekly or monthly general inspections of the project are and facilities. The objective is to identify non-compliance to EMoP is provided the environmental monitoring schedule for Myanmar Cotton Spinning Garment Accessories Co., Ltd. The proposed factory submits monitoring report to the Ministry not less frequently than every six (6) months, as provided in a schedule in the EMP,

Table 6-2 Environmental Monitoring Process

Issues	Parameter	Frequency	Area to be monitored	Monitoring cost (MMK)	Responsible Organization
Operation Phase					
Air quality	PM2.5, PM10, SO2, NO2, O3, CO	Biannually	Outdoor and Indoor of proposed project 16°51'7.08"N 96°4'6.35"E	1,600,000 Kyats/ Year	Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.
Noise	Noise level in decibel (dBA)	Biannually	Operation area (especially the sewing area) 16°51'8.28"N 96°4'6.35"E	500,000 Kyats/ Year	Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.
Water Quality	Ground Water (pH, Turbidity, Total Solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese and Zinc)	Biannually	Water Storage Tank 16°51'7.07"N 96°4'6.07"E	600,000 Kyats/ Year	Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.
	Wastewater (pH, Turbidity, Conductivity, Iron, Sulfide, TSS, TDS, Manganese, COD, BOD, Cyanide, Copper, Zinc, Carbonate)	Biannually	Wastewater outlet from whole factory 16°51'7.50"N 96° 4'5.87"E	600,000 Kyats/ Year	
Waste Generation	Solid waste	Weekly	Recycle house and waste house	600,000 Kyats/ Year	Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.
	Liquid waste (Inspection)	Weekly	Factory Drainage	250,000 Kyats /Year	
	Hazardous Waste	Weekly	Waste bin	300,000 Kyats/ Year	
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	At the factory	1,200,000 Kyats/ Year	Environmental Management Team of Myanmar Cotton Spinning

Issues	Parameter	Frequency	Area to be monitored	Monitoring cost (MMK)	Responsible Organization
					Garment Accessories Co., Ltd.
Light intensity	Illuminance	Biannually	At the production line 16°51'8.80"N 96°4'6.34"E	500,000 Kyats/ Year	Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.
Occupational Safety and Health	Fire extinguishers and water hydrant in position Inspect that all fire exist are open Servicing fire extinguisher and records accidents	Weekly	At the factory	1,000,000 Kyats/ Year	Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.
Decommissioning Phase					
Air quality	SO2, NO2, CO2, PM2.5, PM10	One time during this phase	One point in demolishing area	1,000,000 Kyats	Myanmar Cotton Spinning Garment Accessories Co., Ltd.
Noise	Noise level in decibel (dBA)	One time during this phase	One point in demolishing area	500,000 Kyats	Myanmar Cotton Spinning Garment Accessories Co., Ltd.
Solid Waste	Demolished solid wastes	One time	demolishing area	50,000 Kyats	Myanmar Cotton Spinning Garment Accessories Co., Ltd.
Rehabilitation	Recovering and Revegetation		All decommissioning area		Myanmar Cotton Spinning Garment Accessories Co., Ltd.

Note: If the amount described above is not enough at the time of implementation, it will be used up to a sufficient amount.

6.6. 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;

6.6.1. 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.

6.6.2. 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

6.6.3. 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

6.6.4. 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 spared of fire and end the fire.

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

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

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

6.6.5. 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.

6.6.6. 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 6-3 American National Fire Fighting Association (NFFA) Standards

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

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

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

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

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

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

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

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

6.6.7. 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)

6.6.8. 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 MSDS of chemical materials

6.6.9. Health and Safety Training Plan for Worker

Health and Safety Training plan currently used and provided in Myanmar Cotton Spinning Garment Accessories Co., Ltd. to all employees and workers by trainings internally and externally. Specific trainings are recommended and conducted according to the health and safety guidelines to enhance worker's health and to prevent all potential risks and hazards might occur in the factory. All required trainings related to health and the respective departments propose safety or operational parts, top management makes decision and HR organizes and conducts the trainings.

Table 6-4 Training Plan Used in Myanmar Cotton Spinning Garment Accessories Co., Ltd.

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

No.	Health and Safety Guidelines	Training needs
		Firefighting materials/ devices use
6.	First Aid	first aid / CPR/ AED training from providers (Outsource) training on hazard of pathogens

6.7. 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 though Grievance Committee, which includes the responsible persons of Myanmar Cotton Spinning Garment Accessories Co., Ltd. representative from Hlaing Thar Yar Industrial Zone and representative from General Administration Department (Hlaing Thar Yar Township). Small issues will be solved at the Grievance Committee stage and other unsolved problems will be submitted to higher responsible authorities and finally the responsible person decided by the court in legal terms. The following diagram show steps of Grievance Redress Mechanism of Proposed Factory Project.

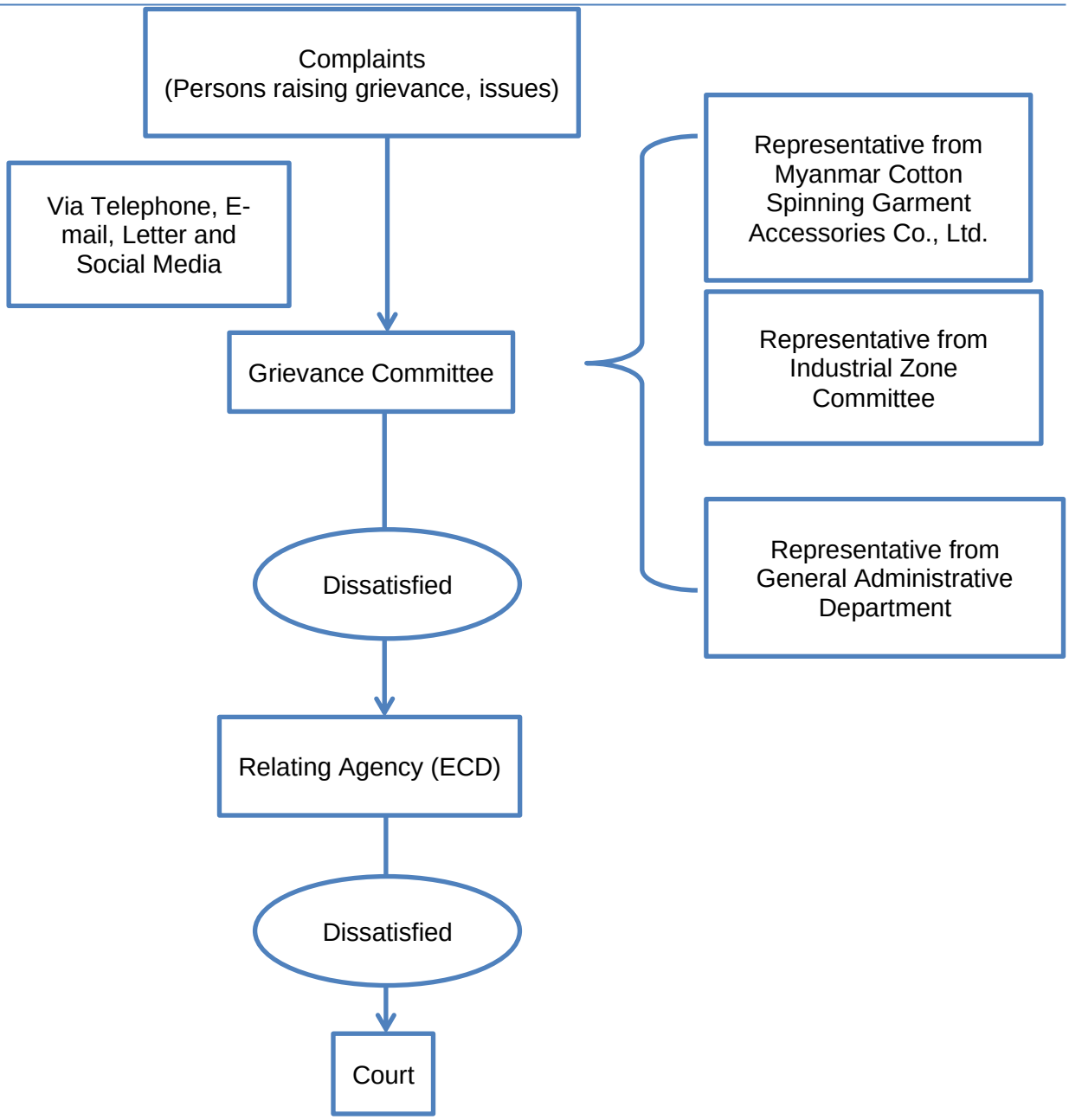


Figure 6-3 Grievance Redress Mechanism Flow Diagram

6.8. 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 Myanmar Cotton Spinning Garment Accessories Co., Ltd. consists of three main sectors; Health, Education and Communities Development Sector. CSR activities are conducted in compliance with MIC's guideline for implementation of CSR program.

Myanmar Cotton Spinning Garment Accessories Co., Ltd. has a plan to implement and donate 2 percent of the profit per year for Corporate Social Responsibility (CSR) and Employee Welfare Arrangement.

Table 6-5 CSR plan at Myanmar Cotton Spinning Garment Accessories Co., Ltd.

Area	Priority item	Contribution (%)	Detail Targets
Health	Healthcare for employees and their family	0.5 %	One of our main concerns is the well-being of our employees. We will contribute 0.5 % of our net profit for the healthcare which includes medical checkup for the employees and providing health education to our workers.
Education	Raising awareness education level and human right	0.5%	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.
Community development	Donation to local community	1 %	Donate to local charities with a worthy cause Actively participate in community events Encourage staff to participate, and to form a community engagement team to actively support community events Embedding understanding and consciousness about human rights issues among the employees Development of sexual harassment and power harassmentǁ (workplace bullying & harassment) prevention efforts

7. PUBLIC CONSULTATION

7.1. METHODOLOGY AND APPROACH

This chapter presents results of public consultation and information disclosure conducted for the Myanmar Cotton Spinning Garment Accessories Company Limited. Public participation can be considered as the required element of the EMP process. In this study various stakeholder's participation was made.

Public consultation during preparation of EMP report was conducted on 24 January, 2024, following the EIA procedure. The project's stakeholders in this category are key officials or representatives of the regional and local authorities who have direct responsibilities for the administration of the EMP process for environmental and social clearance and issuing operation permits for proposed development projects.

For this company, relevant key offices at the regional level is Environmental Conservation Department (ECD) and the township level are Public Health Department and Fire Services Department. Public consultation carried out after the presentation on the project, followed by questions, answers and discussion. Daw Pyae Phyo Win presented EMP study and findings, after the presentation following questions and answer section. Summary of public consultation meeting is presented in Table 7-1 and Table 7-2.

Table 7-1 Summary of Public Consultation Meeting

Time and Date	Wednesday, 24 January 2024 10:00 AM -11:15 PM
Venue	Meeting room, Industrial Zone Committee Office, Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Township, Yangon Region
Agenda	• Presentation on the Background Information of Project, • Project Description, • Impact Assessment, Environmental Mitigation • Environmental Management Plan and Monitoring Plan • Received and Answer from feedback of participants

Figure 7-1 Public Consultation Meeting

7.1.1. Participant List

Sixteen people attended to the stakeholder meeting held on January 24, 2024, and scan documents of attendees list were mentioned in **Appendix**.

7.2. RECOMMEND SUGGESTION AND COMMENT

Public Consultation Meeting for the EMP of Myanmar Cotton Spinning Garment Accessories Company Limited was held on 24 January, 2024. The detailed of the meeting, including the meeting time, venue and names of participated attended the consultation meeting are listed in Appendix.

After the presentation, the floor opened for questions and answers. Most of the government stakeholders are suggested for good monitoring measure during operation.

Table 7-2 Suggestion and Comment of Public Consultation Meeting

Name	Description	Photo
ဦးမြင့်ဇော်ဦး လက်ထောက် ညွှန်ကြားရေး မှူး၊ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဦးစီးဌာန	ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ လက်ထောက်ညွှန်ကြားရေးမှူး ဦးမြင့်ဇော်ဦးမှ စက်ရုံအနေဖြင့် အစီရင်ခံစာတွင်ပါရှိသည့် ကတိကဝတ်များအား စာထဲတွင်သာရေးသားဖော်ပြထားခြင်းမျိုး မဟုတ်ဘဲ လက်တွေ့တွင်အကောင်အထည်ဖော် လိုက်နာဆောင်ရွက်သွားရမည် ဖြစ်ပါကြောင်း ဆွေးနွေးပြောကြားခဲ့ပါသည်။	
ဦးအောင်ကျော်ဦး စက်မှုဇုန်ဥက္ကဋ္ဌ၊ လိုင်သာယာစက်မှုဇုန် စီမံခန့်ခွဲရေးရုံး	လိုင်သာယာစက်မှုဇုန် စီမံခန့်ခွဲရေးရုံး၊ စက်မှုဇုန်ဥက္ကဋ္ဌ ဦးအောင်ကျော်ဦးမှ စက်ရုံအတွက် လိုအပ်သော လိုင်စင်များအားလုံး ပြည့်စုံအောင် ဆောင်ရွက်ရန်လိုအပ်ကြောင်း ဆွေးနွေး ပြောကြားခဲ့ပါသည်။	

8. CONCLUSION & RECOMMENTATION

8.1. CONCLUSION

Environmental Management Plan (EMP) has been prepared for Myanmar Cotton Spinning Garment Accessories Company Limited factory is located at Plot No. (93/A), Corner of Mya aung Wun U Hmo St. and Min Theiddhi Kyaw Swar St., Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Towship, Yangon Region. The main objective of the study is focused specially on the required environmental management measures or creating environmentally friendly workplace. An EMP has been carried out for the factory according to the requirement of the proponent as it has been made for manufacturing of Gunned Cotton, Eiderdown Cotton and Honing for Local CMP Garment Enterprises.

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

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

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

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

8.2. RECOMMENTATION

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 has to follow the comments and suggestions made by ECD after reviewing this EMP report. Once concerned authorities approve EMP, effective implementation of EMP by the project proponent is essential. The proponent has to abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar. Therefore, the project will be able to operate with minimal impact on the natural and social environment.

9. REFERENCE

[1] General Administrative Department (Hlaing Thar Yar Township), Hlaing Thar Yar Township Data (2019).

[2] Hla Hla Aung, “Potential Seismicity of Yangon Region (Geological Approach), “Yangon Surface Displacement as Detected by Insar Time Series Analyisi” July 2011.

[3] Ministry of Natural Resources and Environmental Conservation (MONREC), “Environmental Impact Assessment Procedure” December 2015.

[4] Ministry of Natural Resources and Environmental Conservation (MONREC), “National Environmental Quality (Emission) Guidelines’’ December 2015.

[5] Specifications for accident prevention signs and tags, regulations (standards 29-CFR), Occupational Safety and Health Administration.

APPENDIX A
Company Document of Myanmar Cotton Spinning Garment Accessories Company Limited

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်

ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ

၂၀၂၀ ပြည့်နှစ် ဇွန်လ ၁၁ ရက်စွဲဖြင့် ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှု ကော်မတီ၏
အတည်ပြုမိန့် အမှတ်ရကတ- ၃၉၁/၂၀၂၀ တွင် ပြင်ဆင်ချက်

၂၀၂၃ ခုနှစ် မေလ ၂၆ ရက်နေ့တွင် ကျင်းပပြုလုပ်သော ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှု ကော်မတီ၏ ၅/၂၀၂၃ အစည်းအဝေး ဆုံးဖြတ်ချက်အရ Gunned Cotton, Eiderdown Cotton, Honing များ ထုတ်လုပ်၍ ပြည်တွင်းရှိ CMP အထည်ချုပ်လုပ်ငန်းများသို့ ရောင်းချခြင်း လုပ်ငန်း ဆောင်ရွက်လျက်ရှိသော Myanmar Cotton Spinning Garment Accessories Company Limited ၏ ရင်းနှီးမြှုပ်နှံသူအမည်နှင့် လိပ်စာအား မူလ "Mr. Lei Peijun (Chinese), Licheng Village 44-5, Jiangsu Province, Jinhu Country, The People's Republic of China" မှ "Mr. Miao Guangyu (Chinese), No.6, Group 318, Litown, Jiangsu Province, Jinhu Country, The People's Republic of China" သို့ ပြင်ဆင်ခွင့်ပြုလိုက်သည်။

(၁) **ရင်းနှီးမြှုပ်နှံသူအမည်** MR. MIAO GUANGYU

(၂) **နေရပ်လိပ်စာ** NO.6, GROUP 318, LITOWN, JIANGSU PROVINCE, JINHU CITY, THE PEOPLE'S REPUBLIC OF CHINA

ဥက္ကဋ္ဌ(ကိုယ်စား)
(မျိုးခိုင်ဦး အတွင်းရေးမှူး)

ရက်စွဲ၊ ၂၀၂၃ ခုနှစ် ဇွန်လ ၇ ရက်
နေရာ၊ ရန်ကုန်မြို့

THE REPUBLIC OF THE UNION OF MYANMAR

YANGON REGION INVESTMENT COMMITTEE

Amendment on Endorsement No. YGN- 391/2020 dated 11th June, 2020

The Yangon Region Investment Committee, at its meeting (5/2023) held on dated 26th May, 2023, approved the name of investor and the residence address of Myanmar Cotton Spinning Garment Accessories Company Limited which is carrying out manufacturing of Gunned Cotton, Eiderdown Cotton, Honing for local CMP garment enterprises be amended from Mr. Lei Peijun (Chinese), Licheng Village 44-5, Jiangsu Province, Jinhu Country, The People's Republic of China" to "Mr. Miao Guangyu (Chinese), No.6, Group 318, Litown, Jiangsu Province, Jinhu Country, The People's Republic of China".

(1) **Name of Investor** MR. MIAO GUANGYU

(3) **Residence Address** NO.6, GROUP 318, LITOWN, JIANGSU PROVINCE, JINHU CITY, THE PEOPLE'S REPUBLIC OF CHINA

For Chairman

(Myo Khaing Oo, Secretary)

Date : 7th June 2023

Location : Yangon

Confidential

Republic of the Union of Myanmar ★ Yangon Region Investment Committee ★
No.....
Date.....

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

Fax: 01- 658264

Our ref:YRIC-1/E-391/2023(855)

Date : 7th June 2023

Subject: **Decision of the Yangon Region Investment Committee for amendment of the share ration, the name of investor and the residence address of Myanmar Cotton Spinning Garment Accessories Company Limited**

Reference: Myanmar Cotton Spinning Garment Accessories Company Limited's letter dated 19th May, 2023.

1. The Yangon Region Investment Committee, at its meeting (5/2023) held on dated 26th May, 2023, approved the share ratio of Myanmar Cotton Spinning Garment Accessories Company Limited which is carrying out manufacturing of Gunned Cotton, Eiderdown Cotton, Honing for local CMP garment enterprises be changed to Mr. Miao Guangyu (70 %) and Mr. Zhao Weiqing (30 %) from The People's Republic of China.

2. In addition, the name of investor and the residence address of Myanmar Cotton Spinning Garment Accessories Company Limited be amended from Mr. Lei Peijun (Chinese), Licheng Village 44-5, Jiangsu Province, Jinhu Country, The People's Republic of China" to "Mr. Miao Guangyu (Chinese), No.6, Group 318, Litown, Jiangsu Province, Jinhu Country, The People's Republic of China".

3. Hence, the name of investor and the residence address of Myanmar Cotton Spinning Garment Accessories Company Limited are hereby amended to "Mr. Miao Guangyu (Chinese), No.6, Group 318, Litown, Jiangsu Province, Jinhu Country, The People's Republic of China" on the Endorsement No. YGN- 391/2020 dated 11th June, 2020.

Confidential

4. It is also notified that Myanmar Cotton Spinning Garment Accessories Company Limited shall have to abide by all terms and conditions stated in the Yangon Region Investment Committee's Letter No. YRIC-1/E-391/2020 (1928-d) dated 11th June, 2020, YRIC-1/E-391/2022 (166) dated 7th March, 2022 and YRIC-1/E-391/2022 (281-k) dated 28th March, 2022.

For Chairman

(Myo Khaing Oo, Secretary)

Myanmar Cotton Spinning Garment Accessories Company Limited

cc:
1. The Office of the Union Government
2. Ministry of Home Affairs
3. Ministry of office of the Union Government (1)
4. Ministry of office of the Union Government (2)
5. Ministry of Planning and Finance
6. Ministry of Investment and Foreign Economic Relations
7. Ministry of Natural Resources and Environmental Conservation
8. Ministry of Industry
9. Ministry of Immigration and Population
10. Ministry of Labour
11. Ministry of Commerce
12. Office of the Myanmar Investment Commission
13. Chairman, CMP Enterprises Supervision Committee
14. Office of the Yangon Region Government
15. Director General, National Archives Department
16. Director General, Customs Department
17. Director General, Internal Revenue Department
18. Director General, Directorate of Industrial Supervision and Inspection
19. Director General, Directorate of Investment and Company Administration
20. Director General, Department of Environmental Conservation
21. Director General, Directorate of Labour

22.Director General, Department of Immigration

23.Director General, Department of Trade

24.Monitoring and Supervision Division, Directorate of Investment and Company Administration

Form (5-B)

THE REPUBLIC OF THE UNION OF MYANMAR

Yangon Region Investment Committee

ENDORSEMENT

Endorsement No. YGN – 391/2020 Date 11 June 2020

This endorsement is issued by Yangon Region Investment Committee according to the section 25 of the Myanmar Investment Law–

(1) Name of Investor MR. LEI, PEIJUN

(2) Citizenship CHINESE

(3) Residence Address LICHENG VILLAGE 44–5, JIANGSU PROVINCE, JINHU COUNTY, THE PEOPLE'S REPUBLIC OF CHINA

(4) Name and Address of Principle MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED, PLOT NO.93/A, HLAING THAR YAR INDUSTRIAL ZONE (3), HLAING THAR YAR TOWNSHIP, YANGON

(5) Place of Incorporation MYANMAR

(6) Type of business MANUFACTURING OF GUNNED COTTON, EIDERDOWN COTTON, HONING FOR LOCAL CMP GARMENT ENTERPRISES

(7) Place(s) of investment Project PLOT NO.93/A, HLAING THAR YAR INDUSTRIAL ZONE (3), HLAING THAR YAR TOWNSHIP, YANGON REGION

(8) Amount of Foreign Capital US$ 1.500 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$ 1.500 MILLION

(11) Construction/ Preparation Period 1 YEAR

(12) Validity of Endorsement 20 YEARS

(13) Form of Investment WHOLLY FOREIGN OWNED

(14) Name of Company Incorporated in Myanmar MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED

YRIC 3912020

(Phyo Min Thein)

Chairman

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်

ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ

အတည်ပြုမိန့်အမှတ် ရကတ-၃၉၁/၂၀၂၀ အတည်ပြုမိန့် ၂၀၂၀ ပြည့်နှစ် ဇွန်လ ၁၁ ရက်

ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှု ကော်မတီသည် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ဥပဒေ ပုဒ်မ-၂၅ အရ ဤအတည်ပြုမိန့်ကိုထုတ်ပေးလိုက်သည် -

(၁) **ရင်းနှီးမြှုပ်နှံသူအမည်** MR. LEI, PEIJUN

(၂) **နိုင်ငံသား** CHINESE

(၃) **နေရပ်လိပ်စာ** LICHENG VILLAGE 44-5, JIANGSU PROVINCE, JINHU COUNTY, THE PEOPLE'S REPUBLIC OF CHINA

(၄) **ပင်မအဖွဲ့အစည်းအမည်နှင့်လိပ်စာ** MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED, မြေကွက်အမှတ် ၉၃/က၊ လှိုင်သာယာစက်မှုဇုန် (၃)၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်မြို့

(၅) **ဖွဲ့စည်းရာအရပ်** မြန်မာ

(၆) **ရင်းနှီးမြှုပ်နှံသည့်လုပ်ငန်းအမျိုးအစား** MANUFACTURING OF GUNNED COTTON, EIDERDOWN COTTON, HONING FOR LOCAL CMP GARMENT ENTERPRISES

(၇) **ရင်းနှီးမြှုပ်နှံသည့်အရပ်ဒေသ(များ)** မြေကွက်အမှတ် ၉၃/က၊ လှိုင်သာယာ စက်မှုဇုန် (၃)၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး

(၈) **နိုင်ငံခြားမတည်ငွေရင်း ပမာဏ** အမေရိကန်ဒေါ်လာ ၁.၅၀၀ သန်း

(၉) **နိုင်ငံခြားမတည်ငွေရင်းယူဆောင်လာရမည့်ကာလ** အတည်ပြုမိန့်ရရှိသည့်နေ့မှ ၁ နှစ် အတွင်း

(၁၀) **စုစုပေါင်း မတည်ငွေရင်းပမာဏ(ကျပ်)** အမေရိကန်ဒေါ်လာ ၁.၅၀၀ သန်း နှင့် ညီမျှသော မြန်မာကျပ်ငွေ

(၁၁) **တည်ဆောက်မှု/ ပြင်ဆင်မှုကာလ** ၁ နှစ်

(၁၂) **အတည်ပြုမိန့်သက်တမ်း** ၂၀ နှစ်

(၁၃) **ရင်းနှီးမြှုပ်နှံမှုပုံစံ** ရာခိုင်နှုန်းပြည့် နိုင်ငံခြားရင်းနှီးမြှုပ်နှံမှု

(၁၄) **မြန်မာနိုင်ငံတွင်ဖွဲ့စည်းမည့်ကုမ္ပဏီအမည်** MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED

YRIC 391 2020

(ဖြိုးမင်းသိန်း)

ဥက္ကဋ္ဌ

Republic of the Union of Myanmar
Yangon Region Investment Committee
No.....
Date.....

Confidential

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
Fax: 01- 658264

Our ref: YRIC -1 /E-391/2020(1928-d)
Date : 11 June 2020

Subject: **Decision of the Yangon Region Investment Committee regarding an Endorsement for manufacturing of gunned cotton, eiderdown cotton, honing for local CMP garment enterprises under the name of Myanmar Cotton Spinning Garment Accessories Company Limited**

Reference: Myanmar Cotton Spinning Garment Accessories Company Limited's letter dated 25/5/2020

1. The Yangon Region Investment Committee, at its (9/2020) meeting held on 10/6/2020, approved the Endorsement for investment of manufacturing of gunned cotton, eiderdown cotton, honing for local CMP garment enterprises under the name of Myanmar Cotton Spinning Garment Accessories Company Limited submitted by Mr. Lei, Peijun (50 %) and Mr. Miao, Guangyu (50%) from the People's Republic of China 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 the Endorsed project shall be an initial twenty (20) years commencing from the date of the issuance of the Endorsement by the Yangon Region Investment.

(b) The term of the Land and Buildings Lease Agreement shall be an initial five (5) years commencing from the date of the agreement between U Khway Lay @ U Zaw Hla, Daw San San Yee @ An Yote Kyote (Lessors) and Myanmar Cotton Spinning Garment Accessories Company Limited (Lessee) and shall be extendable for a period of five (5) years, and a further consecutive period of five (5) years by mutual agreement between the Lessor and the Lessee subject to the approval of the Yangon Region Investment Committee.

Confidential

(c) The annual rent for land and building shall be Kyat 48,000,000 (Kyat forty-eight million only)for the total area of the land measuring 1.003 acre.

(d) Myanmar Cotton Spinning Garment Accessories 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 the Myanmar Investment Law.

(e) In addition, Myanmar Cotton Spinning Garment Accessories Company Limited shall apply for tax exemptions or reliefs in accordance with section 77(b) of Myanmar Investment Law as per Notification No. 87/2017 dated 20th November 2017.

(f) Myanmar Cotton Spinning Garment Accessories Company Limited shall use its best efforts to achieve a timely realization of the work stated in the Endorsement application.

(g) Myanmar Cotton Spinning Garment Accessories Company Limited shall obey and respect the responsibilities of investors under Section 65 of the Myanmar Investment Law and Chapter XX of the Myanmar Investment Rules.

(h) Myanmar Cotton Spinning Garment Accessories 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.

(i) Myanmar Cotton Spinning Garment Accessories Company Limited shall abide by the Fire Services Department' s rules, regulations, directives and instructions. Moreover, Myanmar Cotton Spinning Garment Accessories Company Limited shall undertake fire prevention measures 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. Myanmar Cotton Spinning Garment Accessories 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.

(j) Myanmar Cotton Spinning Garment Accessories 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 accordance with Section 72 of Myanmar Investment Law and Rule 191 of the Myanmar Investment Rules.

(k) Myanmar Cotton Spinning Garment Accessories Company Limited shall submit an annual report in the prescribed form to the Myanmar Investment Commission within three (3) months of the end of the financial year in accordance with Rule 196 of the Myanmar Investment Rules and shall disclose a summary of the report on its website or the Myanmar Investment Commission's website.

(l) Myanmar Cotton Spinning Garment Accessories Company Limited must, during the operation period under the Endorsement of the Myanmar Investment Commission, submit its operating report quarterly in the prescribed form in accordance with Rule 197 of Myanmar Investment Rules.

3. Myanmar Cotton Spinning Garment Accessories 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 license, permit or registration as per Section 65(d) of the Myanmar Investment Law.

4. Myanmar Cotton Spinning Garment Accessories Company Limited shall submit five (5) copies of all approvals, licences, permits and similar authorizations

relevant to the initial implementation of the investment and land Lease Agreement to the Yangon Region Investment Committee.

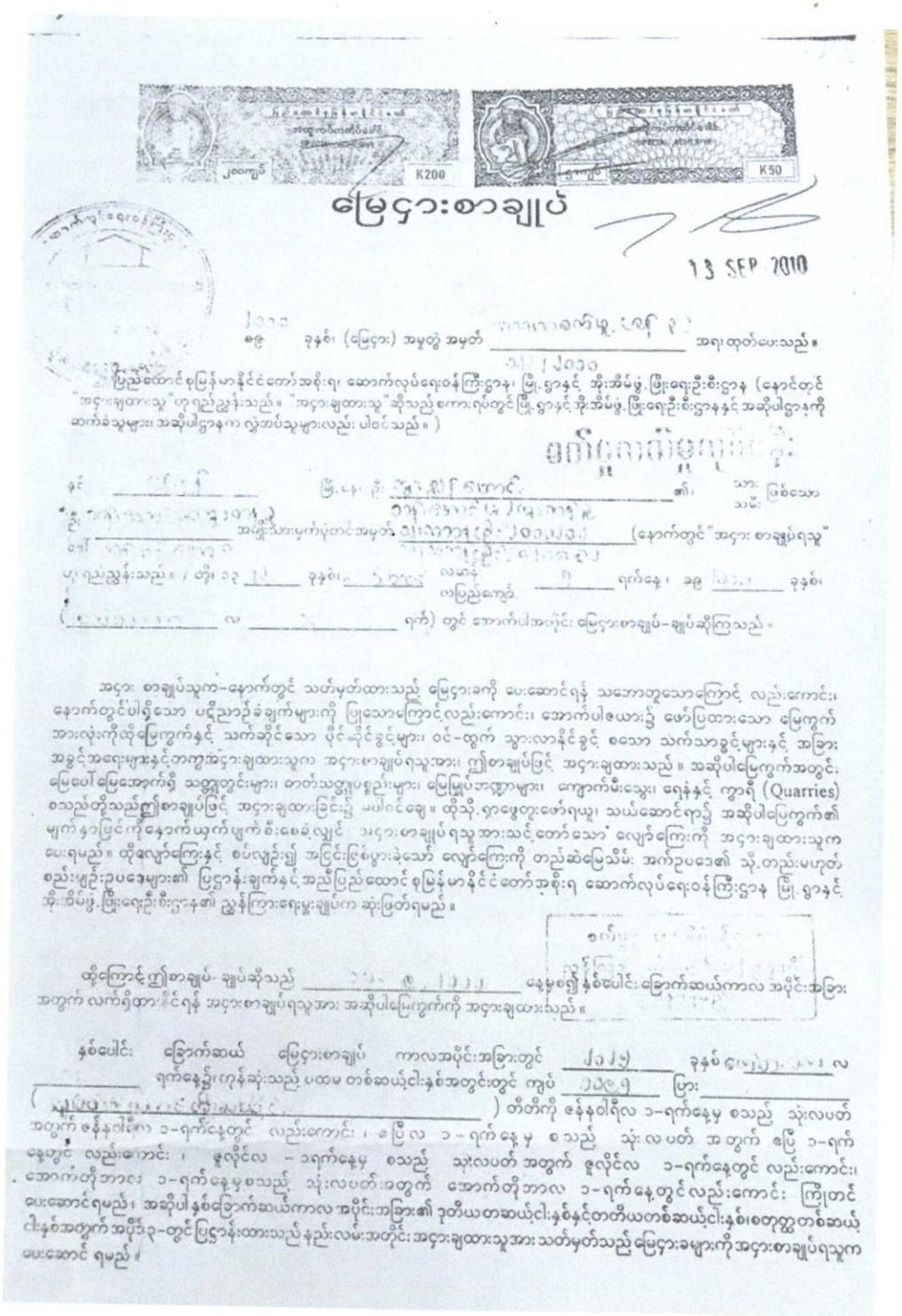
(Phyo Min Thein)

Chairman

Myanmar Cotton Spinning Garment Accessories Company Limited

cc:
1. The Office of the Union Government
2. Ministry of Office of the Union Government
3. Ministry of Home Affairs
4. Ministry of Planning, Finance and Industry
5. Ministry of Investment and 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, Directorate of Industrial Supervision and Inspection
13. Director General, National Archives Department
14. Director General, Customs Department
15. Director General, Internal Revenue Department
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

APPENDIX B
Land Lease Agreement



မြေငှားစာချုပ်

13 SEP 2010

စက္ခု ခုနှစ်၊ (မြေငှား) အမှတ် _____ အရာထုတ်ပေးသည်။

ပြည်ထောင်စုမြန်မာနိုင်ငံတော်အစိုးရ၊ ဆောက်လုပ်ရေးဝန်ကြီးဌာန၊ ဖြို့.ရွာနှင့် အိုးအိမ်မဲ့.ဖြိုးရေးဦးစီးဌာန (နောင်တွင် "အငှားချုထားသူ" တုရည်ညွှန်းသည်။ "အငှားချုထားသူ"ဆိုသည်ကေားလုပ်တွင်ဖြို့.ရွာနှင့်အိုးအိမ်မဲ့.ဖြိုးရေးဦးစီးဌာနနှင့်အဆိုပါဌာနကို ဆက်ခံသူများ၊ အဆိုပါဌာနက လွှဲအပ်သူများလည်း ပါဝင်သည်။)

နှင့် _____ ဖြို့.နေ.ရပ် _____ ၏၊ သား/ဖြစ်သော သမီး _____ အမျိုးသား/မိန်းကလေး အမှတ် _____ (နောက်တွင် "အငှား စာချုပ်ရသူ" ဟု ရည်ညွှန်းသည်။ / တို့၊ ၁၃ _____ ခုနှစ်၊ _____ လဆန်း _____ ရက်နေ့၊ ခေတ္တ _____ ခုနှစ်၊ _____ လပြည့်ကျော် _____ ရက်) တွင် အောက်ပါအတိုင်း မြေငှားစာချုပ်-ချုပ်ဆိုကြသည်။

အငှား စာချုပ်သူက-နောက်တွင် သတ်မှတ်ထားသည့် မြေငှားခကို ပေးဆောင်ရန် သဘောတူသောကြောင့် လည်းကောင်း၊ နောက်တွင်ပါရှိသော ပဋိညာဉ်ခံချက်များကို ပြုသောကြောင့်လည်းကောင်း၊ အောက်ပါဇယားတွဲ ဖော်ပြထားသော မြေကွက်အားလုံးကိုထိုမြေကွက်နှင့် သက်ဆိုင်သော ပိုင်ဆိုင်ခွင့်များ၊ ဝင်-ထွက် သွားလာနိုင်ခွင့် စသော သက်သာခွင့်များနှင့် အခြားအခွင့်အရေးများနှင့်တကွအငှားချုထားသူက အငှားစာချုပ်ရသူအား၊ ဤစာချုပ်ဖြင့် အငှားချုထားသည်။ အဆိုပါမြေကွက်အတွင်း မြေပေါ်မြေအောက်ရှိ သတ္တုတွင်းများ၊ တစ်သတ္တုပစ္စည်းများ၊ မြေမြှုပ်ဘဏ္ဍာများ၊ ကျောက်မီးသွေး၊ ရေနံနှင့် ကွာရီ (Quarries) စသည်တို့သည်ဤစာချုပ်ဖြင့် အငှားချထားခြင်းသို့ မပါဝင်ချေ။ ထိုသို့ ဂွာဖွေတူးဖော်ရှာဖွေ၊ သယ်ဆောင်ရာ၌ အဆိုပါမြေကွက်၏ မျက်နှာပြင်ကို နှောက်ယှက်ပျက်စီးစေခဲ့လျှင် အငှားစာချုပ်ရသူ အားသင့်တော်သော လျော်ကြေးကို အငှားချထားသူက ပေးရမည်။ ထိုလျော်ကြေးနှင့် စပ်လျဉ်း၍ အငြင်းပြစ်မှုးခဲ့သော် လျော်ကြေးကို တည်ဆဲမြေသိမ်း အက်ဥပဒေ၏ သို့တည်းမဟုတ် စည်းမျဉ်းဥပဒေများ၏ ပြဋ္ဌာန်းချက်နှင့် အညီပြည်ထောင်စုမြန်မာနိုင်ငံတော်အစိုးရ ဆောက်လုပ်ရေးဝန်ကြီးဌာန ဖြို့.ရွာနှင့် အိုးအိမ်မဲ့.ဖြိုးရေးဦးစီးဌာန၏ ညွှန်ကြားရေးမှူးချုပ်က ဆုံးဖြတ်ရမည်။

ထိုကြောင့် ဤစာချုပ်-ချုပ်ဆိုသည့် _____ နေ့မှစ၍ နှစ်ပေါင်း ခြောက်ဆယ်ကာလ အပိုင်းအခြား အတွက် လက်ရှိထား၍ရန် အငှားစာချုပ်ရသူအား အဆိုပါမြေကွက်ကို အငှားချထားသည်။

နှစ်ပေါင်း ခြောက်ဆယ် မြေငှားစာချုပ် ကာလအပိုင်းအခြားတွင် _____ ခုနှစ် _____ လ _____ ရက်နေ့၌၊ ကုန်ဆုံးသည့် ပထမ တစ်ဆယ့်ငါးနှစ်အတွင်းတွင် ကျပ် _____ ပြား _____ (_____) တိတိကို ဧနှစ်ဝါရိလ ၁-ရက်နေ့မှ စသည့် သုံးလပတ် အတွက် ဧနှစ်ဝါဒီလ ၁-ရက်နေ့တွင် လည်းကောင်း၊ ဧပြီလ ၁-ရက်နေ့မှ စသည့် သုံးလပတ် အတွက် ဧပြီ ၁-ရက်နေ့တွင် လည်းကောင်း၊ ဇူလိုင်လ ၁-ရက်နေ့မှ စသည့် သုံးလပတ်အတွက် ဇူလိုင်လ ၁-ရက်နေ့တွင် လည်းကောင်း၊ အောက်တိုဘာလ ၁-ရက်နေ့မှစသည့် သုံးလပတ်အတွက် အောက်တိုဘာလ ၁-ရက်နေ့တွင် လည်းကောင်း ကြိုတင် ပေးဆောင်ရမည်။ အဆိုပါနှစ်ခြောက်ဆယ်ကာလ အပိုင်းအခြား၏ ဒုတိယတဆယ့်ငါးနှစ်နှင့်တတိယတစ်ဆယ့်ငါးနှစ်၊ စတုတ္ထတစ်ဆယ့်ငါးနှစ်အတွက် အပိုဒ်(၃)-တွင် ပြဋ္ဌာန်းထားသည့်နည်းလမ်းအတိုင်း အငှားချထားသူအား သတ်မှတ်သည့် မြေငှားခများကို အငှားစာချုပ်ရသူက ပေးဆောင် ရမည်။

၁။ အငှားစာချုပ်ရသူသည် အငှားချထားသူအား အောက်ပါအတိုင်း ပဋိညာဉ်ခံချက် ပြုလုပ်သည်။

(က) အထက်၌ မြေငှားခကိုပေးဆောင်ရန် သတ်မှတ်ထားသည့် နေ့ရက်များတွင် သတ်မှတ်ထားသည့် နည်းလမ်းအတိုင်း အဆိုပါမြေငှားခနှင့် အဆိုပါမြေကွက်ပေါ်၌လည်းကောင်း၊ ထိုမြေကွက်ပေါ်တွင် ဆောက်လုပ်ထားသော အဆောက်အအုံပေါ်၌ သော်လည်းကောင်း၊ အငှားစာချုပ်ရသူအပေါ်၌လည်းကောင်း အဆိုပါ နှစ်ခြောက်ဆယ် ကာလအပိုင်းအခြားအတွင်း စည်းကြပ်ဆဲ စည်းကြပ်လတ္တံ့ ဖြစ်သော အခွန်အတုတ်အားလုံးကို ပေးဆောင်ရန်။

(ခ) ဤစာချုပ်ချုပ်ဆိုသည့်နေ့မှ ၆-လအတွင်း စတင်ဆောက်လုပ်၍ နှစ်နှစ်အတွင်း အဆိုပါမြေကွက်ပေါ်၌ ဆောက်လုပ်နိုင်ခဲ့သော လိုနေအိမ်များ ... ဆိုင်သည့်တရားဥပဒေများနှင့် အညီ၊ ပြီးစီးအောင်ဆောက်လုပ်ရန်နှင့် ... အိမ်စသည်တို့ကို အဆိုပါနှစ်ပေါင်းခြောက်ဆယ်ကာလ အပိုင်းအခြားအတွင်း ပြုပြင်မွမ်းမံထားရှိရန်။

(ဂ) အဆိုပါမြေကွက်တည်ရှိသော ရပ်ကွက်၌သက်ဆိုင်ရာဒေသန္တရအာဏာပိုင်များက မိလ္လာပိုက်နှင့် ... ဒေသန္တရအာဏာပိုင်နှင့် သက်ဆိုင်သည့်တရားဥပဒေနှင့်အညီ အဆိုပါမြေကွက်ပေါ်၌ ဆောက်လုပ်ထားသော အဆောက်အအုံများကို ထိုမိလ္လာပိုက်၊ ရေပိုက်များနှင့် ဆက်သွယ်ရန်။

(ဃ) သက်ဆိုင်ရာ ... ဒေသန္တရအာဏာပိုင်က ခွင့်ပြုသော အဆောင်ခွဲနှင့် အလုပ်သမားတန်းလျားများမှအပ အဆိုပါ မြေကွက်ပေါ်၌ အဆောက်အအုံတစ်ခုထက်ပို၍ မဆောက်လုပ်ရန်။

(င) အငှားချထားသူ၏ စာဖြင့် သဘောတူညီချက်ကို ကြိုတင်မရရှိဘဲ၊ နှစ်ပေါင်းခြောက်ဆယ်ကာလအပိုင်းအခြား အတွင်းအဆိုပါ မြေကွက်ကို လူနေအိမ်ဆောက်လုပ်ရန် ... အခြားကိစ္စအတွက် အသုံးမပြုရန်နှင့် အဆိုပါ မြေကွက်ပေါ် တွင် ဆောက်လုပ်သည့် ... အခြားနည်း အသုံးမပြုရန်။

(စ) အငှားချထားသူ၏ စာဖြင့် ကြိုတင်သဘောတူညီချက်မရရှိဘဲ၊ စာချုပ်ပါမြေကို ခွဲခြမ်းခြင်းမပြုရသည့်ပြင် ၎င်းမြေ တစ်စိတ်တစ်ဒေသကိုလည်း လွှဲပြောင်းခြင်း၊ တစ်ဆင့်ငှားရမ်းခြင်း၊ လက်လွှတ်ခြင်းများမပြုလုပ်ရ။

(ဆ) ဤစာချုပ်နှင့်စပ်လျဉ်း၍ မည်သည့်ကိစ္စအတွက်မဆို၊ အဆိုပါမြေကွက်သို့ဖြစ်စေ၊ အဆိုပါမြေကွက်ပေါ်တွင် ဆောက်လုပ်ထားသောအဆောက်အအုံသို့ဖြစ်စေ၊ နှစ်ပေါင်းခြောက်ဆယ် ကာလအပိုင်းအခြားတွင် ပြည်ထောင်စုမြန်မာနိုင်ငံတော် အစိုးရ ဆောက်လုပ်ရေး ဝန်ကြီးဌာန၊ မြို့ရွာနှင့် အိုးအိမ်ဖွံ့ဖြိုးစီးရေးဦးစီးဌာန ညွှန်ကြားရေးမှူးချုပ်၏ အမိန့်အရ ဆောင်ရွက်သူများအား နေ့ခင်း သင့်တော်သည့် အချိန်များတွင် ဝင်ရောက်ခွင့်ပြုရန်။

(ဇ) ဤစာချုပ်အရ အငှားချထားသည့် နှစ်ပေါင်းခြောက်ဆယ်ကာလ အပိုင်းအခြား ကုန်ဆုံးသောအခါ အဆိုပါမြေကွက် တည်ရှိသည့် အဆောက်အအုံ၊ ထိုအဆောက်အအုံနှင့် အမြဲတွဲကပ်ထားသော ပစ္စည်းမပါဝင်စေဘဲ၊ အဆိုပါမြေကွက်ကို အငှားချထားသူအား အေးဆေးစွာပြန်လည် ပေးအပ်ရန်။ သို့ရာတွင် အငှားချထားသူက အပိုဒ် ၂-အရ အဆိုပါမြေကွက်ကို ပြန်လည်သိမ်းယူပြီး စာချုပ်ကိုရုပ်စဲလျှင် အဆိုပါမြေကွက်နှင့် ထိုမြေကွက်ပေါ်တွင်တည်ရှိသည့် အဆောက်အအုံ ထိုအဆောက်အအုံနှင့် အမြဲတွယ်ကပ် ထားသောပစ္စည်းများကို အငှားစာချုပ်ရသူက အငှားချထားသူအား အေးဆေးစွာ ပြန်လည်ပေးအပ်ရန်။

အပိုပဋိညာဉ်ခံချက်များ

၂၁၁၀
ဖော်ပြပါ မြေငှားခနှုန်းသည် ယာယီမှုသာဖြစ်၍ ၁၉ ခုနှစ် အတွင်းတွင် ဖြစ်စေ
ထိုနောက် အချိန်ကာလတွင် ပြန်လည်ပြင်ဆင်သင့်က ပြင်ဆင်စည်းကြပ်ရန် ဖြစ်သည်။

၂။ အဆိုပါ မြေငှားခကို တောင်းဆိုသည်ဖြစ်စေ၊ မတောင်းဆိုသည်ဖြစ်စေ၊ ကြိုတင်ပေးဆောင်ရမည့် သုံးလပတ်အတွက် မြေငှားခကို သို့တည်းမဟုတ် ၎င်း၏ အစိတ်အပိုင်းကို ထိုသုံးလပတ်၏ ဒုတိယလ ဦးပိုင်းတွင် မပေးဆောင်သဖြင့် မြေငှားခ မပြေ ကျန်ရှိလျှင် သို့တည်းမဟုတ် အငှားစာချုပ်ရသူသည် အထက်တွင် ဖော်ပြပါရှိသည့် ပဋိညာဉ်ခံချက်များ အတိုင်း လိုက်နာဆောင်ရွက် ရန် ပျက်ကွက်လျှင် ပြည်ထောင်စုမြန်မာနိုင်ငံတော်အစိုးရ ဆောက်လုပ်ရေးဝန်ကြီးဌာန၊ မြို့ရွာနှင့်အိုးအိမ် ဖွံ့ဖြိုးရေးဦးစီးဌာန၏ ညွှန်ကြားရေးမှူးချုပ်သည် အဆိုပါ မြေငှားခကို ရယူရန် ချက်ချင်း အမှုဖွင့်နိုင်သည်။ ထို့ပြင် သို့တည်းမဟုတ် ယခင်က ပဋိညာဉ်ခံ ချက် ပျက်ကွက်ခြင်းအတွက် အရေးယူပိုင်ခွင့်ကိုဖြစ်စေ၊ အဆိုပါမြေကွက်ပြန်လည်သိမ်းယူနိုင်ခွင့်ကိုဖြစ်စေ စွန့်လွှတ်ခဲ့စေကာမူ ဤစာ ချုပ်ကို ပယ်ဖျက်၍ အဆိုပါ မြေကွက်နှင့် ထိုမြေကွက်ပေါ်တွင် တည်ရှိသော အဆောက်အအုံများ၊ ထိုဆောက်အအုံများနှင့် အမြဲတွယ် ကပ်ထားသော ပစ္စည်းများကို သိမ်းယူနိုင်သည်။

၄(ဃ) ဤစာချုပ် [illegible] ညီ [illegible] ဖြစ်ပေါ်ခဲ့ပါက ထိုမြေ [illegible]
စာ [illegible]
လည်း [illegible]
ထိခိုက်မှုရှိကြောင်း [illegible] ချက် [illegible] ထိုမြေကွက်
ပေါ်တွင် [illegible] ရှိသော အဆောက်အအုံအားလုံးကို သိမ်း [illegible]

၅။ အငှားချထားသူသည် အငှားစာချုပ်ရသူအား အောက်ပါအတိုင်း ပဋိညာဉ်ခံချက် ပြုလုပ်သည်။ ညွှန်ကြားရေးမှူးချုပ်က

(က) အပိုဒ် ၂-အရ ဤစာချုပ်ကို ပယ်ဖျက်ကြောင်း နို့တစ်စာကို အငှားချထားသူက မိမိ သင့်လျော်သည်ဟု ထင်မြင်သည့် နည်းလမ်းအတိုင်း အငှားဂရန် ရသူ၏ နောက်ဆုံး သိရှိရသော လိပ်စာတပ်ပြီး ရေစစ္စတြီပြုလုပ်၍ စာပို့တိုက်မှ ပေးပို့နိုင်သည်။ သို့တည်းမဟုတ် ဆိုခဲ့သည့်အတိုင်း လိပ်စာတပ်၍ နို့တစ်စာကို အဆိုပါမြေကွက်၊ အဆောက်အအုံ စသည့် ပစ္စည်းများ၏ ထင်ရှား၍ လူအများမြင်သာသောနေရာတွင် ကပ်ထားနိုင်သည်။ အဆိုပါ နို့တစ်စာကိုပြဆိုသည့်နည်းလမ်းအတိုင်းပို့ခြင်း၊ ကပ်ထားခြင်း ပြုလုပ်ပြီးနောက် ရက်ပေါင်း ခြောက်ဆယ်အတွင်း အငှားစာချုပ် ရသူက အဆိုပါ ညွှန်ကြားရေးမှူးချုပ်အား မပြေကျန်ရှိနေသေးသော မြေငှားခကို ဤစာချုပ်ပယ်ဖျက်ခြင်း သို့တည်းမဟုတ် အဆိုပါမြေကွက် ပြန်လည်သိမ်းယူခြင်း၊ သို့တည်းမဟုတ် အဆိုပါမြေကွက်ကို ပြန်လည် အငှားချထားခြင်းနှင့် စပ်လျဉ်း၍ အငှားချထားသူက ကုန်ကျသောစရိတ် အားလုံးနှင့်တကွ အဆိုပါ ညွှန်ကြားရေးမှူးချုပ်သို့ ပေးဆောင်လျှင်သော်လည်းကောင်း၊ အခြားပဋိညာဉ်ခံချက် တစ်ခုခုနှင့် စပ်လျဉ်း၍ ဖျက်ကွက်သည့်အတွက် နစ်နာမှုကို ပပျောက်စေရန် အဆိုပါ ညွှန်ကြားရေးမှူးချုပ် ကျေနပ်လောက်အောင် ဆောင်ရွက်လျှင် လည်းကောင်း အငှားချထားသူက ဤစာချုပ်ပါ ပဋိညာဉ်ခံချက်များအတိုင်း နှစ်ပေါင်းခြောက်ဆယ် ကာလအပိုင်းအခြား၏ ကျန်ရှိနေသေးသော ကာလအဖို့ အဆိုပါမြေကွက်နှင့် ပြန်လည်သိမ်းယူသည့်အချိန်တွင် ထိုမြေကွက်ပေါ်၌တည်ရှိနေသော အဆောက်အအုံ၊ ထိုအဆောက်အအုံနှင့် အမြဲတွယ်ကပ်ထားသော ပစ္စည်းများကို လက်ရှိ ထားနိုင်စေခြင်းငှာ အငှားစာချုပ်ရသူအား ပြန်လည်ပေးအပ်ရန်။ သို့ရာတွင် မီးကြောင့်သော်လည်းကောင်း၊ အခြား အကြောင်း တစ်ခုခုကြောင့်သော်လည်းကောင်း ပျက်စီးရသည့် အဆောက်အအုံ သို့တည်းမဟုတ် ထိုအဆောက်အအုံနှင့် အမြဲတွယ်ကပ်ထားသော ပစ္စည်းများကို ပြန်လည်ပေးအပ်ရန် အငှားချထားသူ၌ တာဝန်မရှိသည့်အပြင် ယင်းသို့ ပြန်လည်သိမ်းယူ သည့်အခါက ပြည်ထောင်စုမြန်မာနိုင်ငံတော်အစိုးရဆောက်လုပ်ရေးဝန်ကြီးဌာန၊ မြို့ပြနှင့်အိမ်ရာဖွံ့ဖြိုးရေးဦးစီးဌာန၏ အမှုထမ်းများသို့တည်းမဟုတ် ကိုယ်စားလှယ်များ၏ ဖျက်လိုဖျက်ဆီးပြုလုပ်မှုကြောင့် ဆုံးရှုံးပျက်စီးခြင်းအတွက်မှတစ်ပါး အဆိုပါမြေကွက် ပေါ်တွင် ဖြစ်စေ၊ အ [illegible] မြေ၌ဖြစ်စေ တည်ရှိသော အဆောက်အအုံနှင့် အခြားပစ္စည်းများ၏ တန်ဖိုးယုတ်လျော့ခြင်း၊ ပြုပြင်မှုကင်းမဲ့ခြင်း၊ [illegible] ဖျက်ဆီးယိုယွင်းခြင်းအတွက်ပြည်ထောင်စုမြန်မာနိုင်ငံတော်အစိုးရဆောက်လုပ်ရေးဝန်ကြီးဌာန၊ မြို့ပြနှင့်အိမ်ရာဖွံ့ဖြိုးရေးဦးစီးဌာန၌ တာဝန်မရှိစေရန်။

(ခ) အပိုဒ် ၂-အရ ဤစာချုပ်ကိုပယ်ဖျက်ပြီး မဟုတ်လျှင်လည်းကောင်း၊ အငှားစာချုပ်ရသူကနှစ်ပေါင်းခြောက်ဆယ် ကာလအပိုင်းအခြား ကုန်ဆုံးသည့်အထိ အဆိုပါမြေငှားခကိုပြေလည်အောင် ပေးဆောင်၍ ဤစာချုပ်ပါမိမိပြုလုပ်သည့် ပဋိညာဉ်ခံ ချက်များအတိုင်း လိုက်နာဆောင်ရွက်လျှင်လည်းကောင်း အငှားစာချုပ်ရသူသည် အဆိုပါမြေကွက်ပေါ်တွင် တည်ဆောက်တွယ်ကပ် ထားသောအဆောက်အအုံများ၊ ထိုအဆောက်အအုံများနှင့် အမြဲတွယ်ကပ်ထားသော ပစ္စည်းများကို အဆိုပါကာလအပိုင်းအခြားမကုန် မီ ခြောက်လအတွင်း ဖျက်သိမ်းသယ်ယူ ခန့်ခွဲနိုင်သည်။ သို့ရာတွင် ထိုသို့ သယ်ယူခြင်းကြောင့် အဆိုပါမြေကွက်ပျက်စီးယိုယွင်းခဲ့ လျှင် ထိုမြေကွက်ကိုမူလအခြေအနေအတိုင်းရှိအောင် ပြုပြင်ပေးရန်။

(ဂ) (၂၀၂၃)ခုနှစ်၊ [illegible] လ၊ (၁၂)ရက်နေ့မှစ၍ ပထမတဆယ်ငါးနှစ် ကုန်ဆုံး သည့် အခါ ဒုတိယတဆယ့်ငါးနှစ်အတွက် ရန်ကုန်မြို့ပြင်သာယာရေး မြေနည်းဥပဒေ ၂၄-အရ စည်းကြပ်သော သုံးလပတ်မြေငှားခကို လည်းကောင်း၊ ဒုတိယတဆယ့်ငါးနှစ်ကုန်ဆုံးသည့်အခါ တတိယတဆယ့်ငါးနှစ်အတွက် အဆိုပါ နည်းဥပဒေ ၂၄-အရ စည်းကြပ်သော သုံးလပတ်မြေငှားခကိုလည်းကောင်း၊ တတိယတဆယ့်ငါးနှစ်ကုန်ဆုံးသည့်အခါ စတုတ္ထတဆယ့် ငါးနှစ်အတွက် အဆိုပါနည်းဥပဒေ ၂၄-အရ စည်းကြပ်သောသုံးလပတ်မြေငှားခကိုလည်းကောင်း အငှားစာချုပ်ရသူက အငှားချထားသူအား ပေးဆောင်ရန်။ အကယ်၍ အထက်ပါနည်းလမ်းအတိုင်း မြေငှားခကိုပြန်လည်စည်းကြပ်ခြင်းမပြုလျှင် အငှားစာချုပ်ရသူသည် ဤအပိုဒ်ခွဲတွင်ပြဋ္ဌာန်းထား သည့်နည်းလမ်းအတိုင်း မြေငှားခကိုပြောင်းလဲခြင်းမပြုမီ သတ်မှတ်ထားသည့် စည်းကြပ်ဆဲသုံးလပတ်မြေငှားခကို ဆက်လက်ပေး ဆောင်ရန်။

(ဃ) ဤစာချုပ်ပါအခြားပြဋ္ဌာန်းချက်များတွင် ဆန့်ကျင်လျက်မည်သို့ပင်ပါရှိစေကာမူ ဤစာချုပ် ချုပ်ဆိုသည့်နေ့မှစ၍ ပထမနှစ်ပေါင်းသုံးဆယ်အတွင်းသတ်မှတ်ထားသော သို့တည်းမဟုတ် ပြန်လည်စည်းကြပ်သောမြေငှားခကို မပြေလည်အောင် ပေး ဆောင်ခဲ့သောကြောင့် လည်းကောင်း၊ ပြုလုပ်ထားသည့်ပဋိညာဉ်ခံချက်များကို မပျက်မကွက်လိုက်နာဆောင်ရွက်ခဲ့သောကြောင့် လည်းကောင်း သတ်မှတ်ထားသော သို့တည်းမဟုတ် ပြန်လည်စည်းကြပ်သောသုံးလပတ် မြေငှားခဖြင့်နောက်ထပ် နှစ်ပေါင်း သုံးဆယ်အတွက် ဆက်လက်၍ အဆိုပါမြေကွက်ကို ငှားရမ်း မြေငှားစာချုပ် အသစ် ချုပ်ဆိုရန် သဘောတူကြောင်း အဆိုပါ ပထမ နှစ်ပေါင်းသုံးဆယ်မပြည့်မီ အနည်းဆုံးခြောက်လကြိုတင်၍ အငှားရသူက အငှားချထားသူအား စာဖြင့် အကြောင်းကြား ရမည်။ အကြောင်းကြားစာနှင့်အတူပထမမြေငှားစာချုပ်ကိုပေးအပ်လျှင် ထိုအကြောင်းကြားစာရရှိသည့်နေ့မှ ခြောက်လအတွင်းနောင် နှစ်ပေါင်းသုံးဆယ်အတွက် ပထမမြေငှားစာချုပ်ပါ ပဋိညာဉ်ခံချက်များနှင့်ဖြစ်နိုင်သမျှ တူညီသည့် ပဋိညာဉ် ခံချက်များပါရှိသည့် မြေငှားစာချုပ် အသစ်ကို အငှားစာချုပ်ရသူ၏ စရိတ်ဖြင့် အငှားချထားသူကလုတ်ပေးရန်။ အကယ်၍ မြေငှားခကို သတ်မှတ်ခြင်းမရှိသေးလျှင် ပထမမြေငှားစာချုပ်အရ နောက်ဆုံးပေးဆောင်ခဲ့ရသော သုံးလပတ်မြေငှားခကို အငှားစာချုပ်ရသူကပေးဆောင်ရန်။

ဤဂရန်/စာချုပ်ပါစကားရပ်များကို သိရှိနားလည်ကြပြီးဖြစ်သဖြင့် ပြည်ထောင်စုမြန်မာနိုင်ငံတော်အစိုးရ ဆောက်လုပ်ရေးဝန်ကြီးဌာန မြို့ပြနှင့်အိုးအိမ်ဖွံ့ဖြိုးရေးဦးစီးဌာန ညွှန်ကြားရေးမှူးချုပ်၊ ဒုတိယညွှန်ကြားရေးမှူးချုပ်နှင့် ညွှန်ကြားရေးမှူးတို့ရှေ့တွင် ဦးစီးဌာနတံဆိပ်ကိုခပ်နှိပ်၍ အဆိုပါညွှန်ကြားရေးမှူးချုပ်နှင့်အဆိုပါ [illegible] သည် ဤစာချုပ်ကိုအထက်ဖော်ပြခဲ့သည့်နေ့တွင် လက်မှတ်ရေးထိုးကြကြောင်း။

ပြည်ထောင်စုမြန်မာနိုင်ငံတော်အစိုးရ၊ ဆောက်လုပ်ရေးဝန်ကြီးဌာန မြို့ပြနှင့်အိုးအိမ်ဖွံ့ဖြိုးရေး ဦးစီးဌာန

မြို့- [illegible]

တံဆိပ်ကို ညွှန်ကြားရေးမှူးချုပ် ____ တံဆိပ် ____ ညွှန်ကြားရေးမှူးချုပ်

ဒုတိယညွှန်ကြားရေးမှူးချုပ် ____ ____ ဒုတိယညွှန်ကြားရေးမှူးချုပ်

နှင့် ညွှန်ကြားရေးမှူး ____ တို့
ရှေ့မှောက်၌ ခပ်နှိပ်၍ အဆိုပါ
ညွှန်ကြားရေးမှူးချုပ်၊ ဒုတိယညွှန်ကြားရေးမှူးချုပ်နှင့်
ညွှန်ကြားရေးမှူးတို့လက်မှတ် ရေးထိုးသည်။

____ ညွှန်ကြားရေးမှူး

အသိသက်သေ။

ဒုတိယညွှန်ကြားရေးမှူး (မြေနှင့်အငှား) ____

အငှားစာချုပ်ရသူ ____ က
လက်မှတ်ရေးထိုးသည်။

____ အငှားစာချုပ်ရသူ

အသိသက်သေ။

၁။ ____

၂။ ____

အထက်တွင် ရည်ညွှန်းထားသည့် ဇယား

ခွင့်ပြုပြီးမြေပုံဖြစ်သော လူနေရပ်ကွက်အမှတ် ____
မြေတိုင်းရပ်ကွက်အမှတ် ____
ရန်ကုန်မြို့ ____ မြို့နယ်။

အတွင်းရှိ ____ တန်းစား မြေကွက်အမှတ် ____
ဖြစ်သည်။ ပူးတွဲပါ မြေပုံ၌ မင်နီဖြင့် ပြထားသော အလျား ____ ပေ၊ အနံ ____ ပေခန့်ရှိသော အလား အလာ
အရှေ့လားသော် ____
အနောက်လားသော် ____
တောင်လားသော် ____
မြောက်လားသော် ____
အတွင်း၌ မြေအားလုံးရှိယာ ____ ကေ၊ (စတုရန်းပေ ____)

<u>ရန်ကုန်မြို့တော်</u>

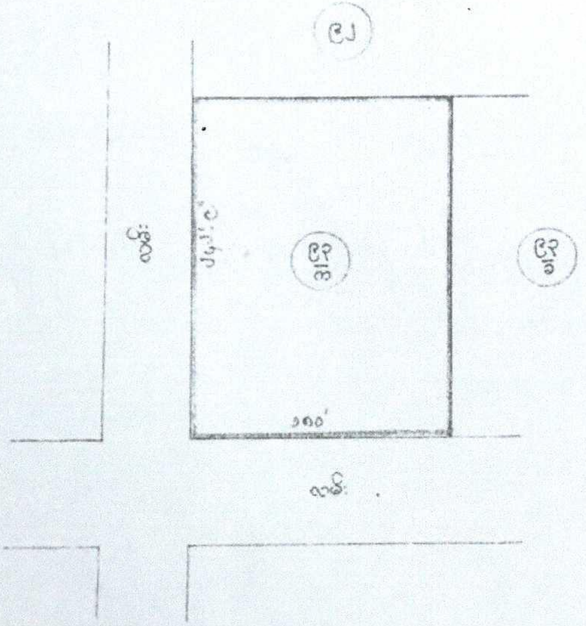
အိုးအိမ်ပုံစံ

အက်စ် - ၂၂

------------- မြို့နယ် လူနေရပ်ကွက် အမှတ် -------------

မြေတိုင်းရပ်ကွက်အမှတ် အပိုင်း (၃) --- မှ မြေကွက်အမှတ် ---- ၆၃ - က ---- ၏ မြေပုံ

<u>၁ - လက်မလျှင် ၁၀၀ ပေ စကေး</u>



<u>စိစစ်ညွှန်းချက်</u>

-------------- ဖိုးယာ

စတုရန်းပေ ---- [illegible] ----

ဧက ---- [illegible] ----

မြေတိုင်း (၄)   မြေတိုင်း (၃)   မြေတိုင်း (၂)

ဒုတိယညွှန်ကြားရေးမှူး
မြေတိုင်းဌာနခွဲ
မြို့ရွာနှင့်အိုးအိမ်ဖွံ့ဖြိုးရေးဦးစီးဌာန

C38396

အမည်ပေါက်လွှဲပြောင်းခြင်းမှတ်တမ်း

မူရင်း

မြို့နယ်	-	လှိုင်သာယာ
မြေတိုင်းရပ်ကွက်အမှတ်	-	စက်မှုဇုန် - ၃
မြေကွက်အမှတ်	-	၉၃/က
ဧရိယာ	-	၁.၀၀၃ ဧက
မြေအမျိုးအစား	-	နှစ် (၆၀) ဂရန်

အမှုတွဲအမှတ် နေ့စွဲနှင့် ခွင့်ပြုရက်စွဲ	အမည်ပေါက် နှင့် နိုင်ငံသားအမှတ်	လွှဲပြောင်းသည့် စာချုပ်အမှတ်နှင့်ရက်စွဲ (သို့) တရားရုံးဒီကရီနှင့်ရက်စွဲ	လွှဲပြောင်းခံရသူ (သို့) တရားရုံးဒီကရီရရှိသူ၏ အမည်နှင့် နိုင်ငံသားအမှတ်
၁	၂	၃	၄
လသသယ/ပြောင်း ၂၀၁၇-၁၃၀၃၃ ၄-၈-၁၇ ဌာနမှူးခွင့်ပြု ၂၄-၁၁-၁၇	၁။ ဦးအုန်းအောင် (ခ) ကျွာတန်ရှ ၁၂/လသန(နိုင်)၀၁၃၂၀၂ ၂။ ဦးတင်လင်းအောင် ၁၂/လသန(နိုင်)၀၂၁၈၆၂	အရောင်းအဝယ်စာချုပ် မှတ်ပုံတင်အမှတ် - ၁၅၃၈/၁၇ ၆-၆-၁၇	၁။ ဦးမွေးလေး (ခ) ဦးဇော်လှ ၇/လပတ(နိုင်)၀၀၀၀၂၇ ၂။ ဒေါ်စန်းရီ (ခ) အန်ယွတ်ကျူ ၁၂/လမတ(နိုင်)၀၂၈၂၃၅

၂၈/၁၁/၁၇

ဌာနမှူး

မြို့ပြမြေစီမံခန့်ခွဲမှုဌာန

APPENDIX C
ECD Recommendation

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ
သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
ညွှန်ကြားရေးမှူးချုပ်ရုံး

စာအမှတ်၊ EIA- ၁/၆/သဘောထား(Issue)(ဂျဉ/၂၀၂၄)
ရက်စွဲ ၊ ၂၀၂၄ ခုနှစ် ဇန်နဝါရီလ ၅ ရက်

သို့

ညွှန်ကြားရေးမှူး
ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
ရန်ကုန်တိုင်းဒေသကြီး

အကြောင်းအရာ။ Myanmar Cotton Spinning Garment Accessories Co., Ltd. မှ အထည်ချုပ်လုပ်ငန်းများတွင် အသုံးပြုသော Gunned Cotton, Eiderdown Cotton နှင့် Honing များ ထုတ်လုပ်ရောင်းချခြင်း လုပ်ငန်းအတွက် စီမံကိန်းအဆိုပြုလွှာထပ်မံတင်ပြလာမှုအပေါ် သဘောထား ပြန်ကြားခြင်း

ရည် ညွှန်း ချက်။ (၁) ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီ၏ ၂၅-၅-၂၀၂၀ ရက်စွဲပါ စာအမှတ်၊ ရကက/ရနမ-၂/၂၀၂၀(၁၈၈၁)

(၂) ရန်ကုန်တိုင်းဒေသကြီး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏ ၁-၆-၂၀၂၀ ရက်စွဲပါ စာအမှတ်၊ ရက-၁/၃/၄(အီးအိုင်အေ)(၁၆၈၃/၂၀၂၀)

(၃) Myanmar Cotton Spinning Garment Accessories Co., Ltd. ၏ ၂၃-၁၁-၂၀၂၃ ရက်စွဲပါ တင်ပြစာ

(၄) ရန်ကုန်တိုင်းဒေသကြီး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏ ၁၅-၁၂-၂၀၂၃ ရက်စွဲပါ စာအမှတ်၊ ရက/ EIA/၆(၃၃၈၁/၂၀၂၃)

၁။ အကြောင်းအရာပါကိစ္စနှင့်စပ်လျဉ်း၍ ရန်ကုန်တိုင်းဒေသကြီး၊ လှိုင်သာယာမြို့နယ်၊ လှိုင်သာယာစက်မှုဇုန်(၃)၊ မြတောင်ဝန်ဦးမှီလမ်းနှင့် မင်းသိခ္ခကျော်စွာလမ်း၊ မြေကွက်အမှတ် - ၉၃/က တွင် အကောင်အထည်ဖော် ဆောင်ရွက်လျက်ရှိသည့် Myanmar Cotton Spinning Garment Accessories Co., Ltd. မှ အထည်ချုပ် လုပ်ငန်းများတွင် အသုံးပြုသော Gunned Cotton, Eiderdown Cotton နှင့် Honing များ ထုတ်လုပ်ရောင်းချခြင်း လုပ်ငန်းအတွက် စီမံကိန်းအဆိုပြုလွှာအပေါ် ပတ်ဝန်းကျင်ဆိုင်ရာသဘောထားမှတ်ချက်အား ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီမှတစ်ဆင့် ရည်ညွှန်း(၁)ပါ စာဖြင့် တောင်းခံလာမှုအပေါ် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု

အစီအစဉ် (EMP) အစီရင်ခံစာ ရေးဆွဲဆောင်ရွက်ရန် ရန်ကုန်တိုင်းဒေသကြီး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှ ရည်ညွှန်း(၂)ပါ စာဖြင့် သဘောထားမှတ်ချက်ပြန်ကြားခဲ့ပါသည်။

၂။ အဆိုပါလုပ်ငန်းအတွက် ပတ်ဝန်းကျင်ဆိုင်ရာ သဘောထားမှတ်ချက် ပြန်ကြားပေးနိုင်ပါရန် Myanmar Cotton Spinning Garment Accessories Co., Ltd. မှ ရည်ညွှန်း(၃)ပါ စာဖြင့် ထပ်မံတင်ပြလာမှုအပေါ် လမ်းညွှန်မှုပြုနိုင်ပါရန် ရန်ကုန်တိုင်းဒေသကြီး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာနမှ ရည်ညွှန်း(၄)ပါ စာဖြင့် ဆက်လက်တင်ပြလာပါသည်။

၃။ အဆိုပါစီမံကိန်းနှင့်ပတ်သက်၍ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် (EMP) အစီရင်ခံစာ ရေးဆွဲဆောင်ရွက်ရန် ရန်ကုန်တိုင်းဒေသကြီး၊ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဦးစီးဌာနမှ ရည်ညွှန်း(၂)ပါ စာဖြင့် သဘောထားမှတ်ချက်ပြန်ကြားထားခဲ့သည့်အတိုင်း Myanmar Cotton Spinning Garment Accessories Co., Ltd. မှ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ် (EMP) အစီရင်ခံစာ ရေးဆွဲ ဆောင်ရွက်ရမည်ဖြစ်ပါကြောင်း သုံးသပ်ရရှိပါသည်။

၄။ သို့ဖြစ်ပါ၍ Myanmar Cotton Spinning Garment Accessories Co., Ltd. မှ အထည်ချုပ်လုပ်ငန်းများတွင် အသုံးပြုသော Gunned Cotton, Eiderdown Cotton နှင့် Honing များထုတ်လုပ်ရောင်းချခြင်း လုပ်ငန်းအတွက် စီမံကိန်းအဆိုပြုလွှာ ထပ်မံတင်ပြလာမှုအပေါ် သဘောထားမှတ်ချက် ပြန်ကြားထားပြီးဖြစ်သဖြင့် သဘောထားမှတ်ချက်များအတိုင်း ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) အစီရင်ခံစာကို ရေးဆွဲ တင်ပြရန် လိုအပ်ကြောင်း Myanmar Cotton Spinning Garment Accessories Co., Ltd. သို့ ဆက်လက် ပြန်ကြားရန်နှင့် လိုအပ်သလို ကြပ်မတ်ဆောင်ရွက်သွားရန် အကြောင်းကြားပါသည်။

၅/၁/၂၀၂၄

ညွှန်ကြားရေးမှူးချုပ်(ကိုယ်စား)
(ဒေါက်တာဆန်းဦး၊ ဒုတိယညွှန်ကြားရေးမှူးချုပ်)

မိတ္တူကို
ညွှန်ကြားရေးမှူးချုပ်ရုံး၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
ရုံးလက်ခံ၊ မျှောစာတွဲ

APPENDIX D
Mornitoring Result

Noise Result

MYANWEI
ENVIRONMENTAL SOLUTIONS
No. 28, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar. Office: (+95) 9777922169, (+95) 9777929885 Mobile: (+95) 9421137569; env@myanweiconsulting.com www.myanweiconsulting.com

Project Name:	Myanmar Cotton Spinning Garment Accessories Company Limited
Project Location:	Plot No. (93/A), Corner of Mya aung Wun U Hmo St. and Min Theiddhi Kyaw Swar St., Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Towship, Yangon Region, Myanmar.
Sampling Date:	9 August, 2023
Sampling Time:	9:00 am to 5:00 pm
Sampling Condition:	Normal
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
Digital Sound Level Meter	GM 1356 USB	30 -130 dB	16°51'8.28"N 96°4'6.35"E

No	Place	Unit	Result	Standard	Remark
1	Production Area	dBA	62.20	70 dBA	Normal

National Environmental Quality (Emission) Guideline

Receptor	One Hour Laeq (dBA)	Guideline value
	Daytime	Nighttime
	7:00 – 22:00 (10:00 – 22:00 for Public holidays)	22:00 – 07:00 (22:00 – 10:00 for Public holidays)
Residential, Institutional, Educational	55	45
Industrial, Commercial	70	70

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Light result

MYANWEI
ENVIRONMENTAL SOLUTIONS
No. 28, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar. Office: (+95) 9777922169, (+95) 9777929885 Mobile: (+95) 9421137569; env@myanweiconsulting.com www.myanweiconsulting.com

Project Name:	Myanmar Cotton Spinning Garment Accessories Company Limited
Project Location:	Plot No. (93/A), Corner of Mya aung Wun U Hmo St. and Min Theiddhi Kyaw Swar St., Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Towship, Yangon Region, Myanmar.
Sampling Date:	9 August, 2023
Sampling Time:	9:00 am to 5:00 pm
Sampling Condition:	Good
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
Uni-T (Luminometer)	UT380 Series	100 times/second	16°51'8.80"N 96°4'6.34"E

No	Measure area	Unit	Result	Standard	Remark
1	Warehouse	Lux	405	300	Above
2	Sewing Area	Lux	612	400	Above
3	Grinding Area	Lux	1205	1000	Above
4	Quality Control	Lux	985	900	Above
5	Packing Area	Lux	792	600	Above

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.

Air result

MYANWEI
ENVIRONMENTAL SOLUTIONS
No. 28, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar. Office: (+95) 9777922169, (+95) 9777929885 Mobile: (+95) 9421137569; env@myanweiconsulting.com www.myanwweiconsulting.com

Project Name:	Myanmar Cotton Spinning Garment Accessories Company Limited
Project Location:	Plot No. (93/A), Corner of Mya aung Wun U Hmo St. and Min Theiddhi Kyaw Swar St., Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Township, Yangon Region, Myanmar.
Sampling Date:	9 August 2023 - 11 August 2023
Sampling Time:	9:00 am to 9:00 am
Sampling Condition:	Good
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
AQM-09	Environmental Parameter Air Station	1 second to 21 weeks	16°51'7.07"N 96°4'6.07"E, 16°51'7.08"N 96°4'6.35"E

National Environmental Quality (Emission) Guideline

Parameter	Averaging period	Guideline value	Unit
PM 10[a]	1-year 24-hour	20 50	(µg/M^3)
PM 2.5[a]	1-year 24-hour	10 25	(µg/M^3)
O_3[a]	8-hour	100	(µg/M^3)
NO_2[a]	1-year 1-hour	40 200	(µg/M^3)
SO_2[a]	24-hour 10-min	20 500	(µg/M^3)
CO[b]	15-min 30-min 1-hour 8-hour	100 60 30 10	(µg/M^3)

a. Values from air quality guidelines-global update 2005: particulate matter, ozone, nitrogen dioxide and sulfur dioxide.
b. Values from air quality guidelines for Europe, 2nd edition.

Monitoring Result

Parameters	Observed value	Guideline value	Unit	Guideline
Indoor Air Quality Measurement				
PM_{10}	32.63	50	µg/m^3	NEQG
$PM_{2.5}$	13.05	25	µg/m^3	NEQG

SO_2	1.50	20	µg/m³	NEQG
NO_2	10.62	200	µg/m³	NEQG
O_3	25.48	100	µg/m³	NEQG
CO_2	0.47	NG	µg/m³	-
Outdoor Air Quality Measurement				
PM_{10}	24.23	50	µg/m³	NEQG
$PM_{2.5}$	10.85	25	µg/m³	NEQG
SO_2	3.08	20	µg/m³	NEQG
NO_2	17.54	200	µg/m³	NEQG
O_3	39.79	100	µg/m³	NEQG
CO_2	0.71	NG	µg/m³	-

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Boiler Stack Emission Result

MYANWEI
ENVIRONMENTAL SOLUTIONS
No. 28, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar. Office: (+95) 9777922169, (+95) 9777929885 Mobile: (+95) 9421137569; env@myanweiconsulting.com www.myanweiconsulting.com

Project Name:	Myanmar Cotton Spinning Garment Accessories Company Limited
Project Location:	Plot No. (93/A), Corner of Mya aung Wun U Hmo St. and Min Theiddhi Kyaw Swar St., Hlaing Thar Yar Industrial Zone (3), Hlaing Thar Yar Towship, Yangon Region, Myanmar.
Sampling Date:	9 August, 2023
Sampling Time:	9:00 am to 5:00 pm
Sampling Condition:	Good
Sampling By:	Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Parameter	Sampling Rate	Location
Oceanus OC-1000	CO_2, SO_2, NO_2, CO	6 times/minute	16°51'8.53"N 96° 4'5.24"E

Occupational Safety and Health Administration

Parameter	Averaging period	Guideline value	Unit
CO_2	8 Hours	5000	ppm
SO_2	8 Hours	5	ppm
NO_2	8 Hours	5	ppm
CO	8 Hours	50	ppm

Monitoring Result

Parameters	Observed value	Guideline value	Unit	Guideline
Boiler Stack Emission Measurement				
CO_2	431	5000	ppm	OSHA
SO_2	0.01	5	ppm	OSHA
NO_2	0.02	5	ppm	OSHA
CO	1.76	50	ppm	OSHA

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED.

Water Result

ALARM Ecological Laboratory

Water Testing Result Report

Report Number: EL-WR-22-00241 Date: **20.8.2023**

Client Information

Client Name	:	**Myanmar Cotton Spinning Garment Accessories Co., Ltd.**
Organization	:	
Client ID	:	-
Registration Date & Time	:	**9.8.2023**
Contact	:	**09793695167**
Testing Purpose	:	-

Sample Information

Sample ID	:	**7899**
Sample Name	:	**Ground Water**
Sample Type / Source	:	-
Sampling Date & Time	:	**9.8.2023**
Sample Location	:	**Hlaing Thar Yar**
Latitude	:	-
Longitude	:	-

Testing Results

This laboratory analysis report is based solely on the sample submitted by the client unless client took our sampling service.

This report shall not be reproduced except in full, without written approval of the laboratory

Sr.	Quality Parameters	Results	Units	Drinking Standards	Remarks
1	pH[1]	6.3	S.U	6.5 – 8.5[c]	Nearly Acid Range
2	Turbidity[3]	< 5	FAU	≤5 [c]	Clear
3	Total Solids[3,4]	78	mg/L	-	-
4	Hardness[3]	3	mg/L	≤500 [c]	-
5	Chloride[3]	95	mg/L	≤250 [c]	Normal
6	Free Cyanide[3]	< 0.01	mg/L	-	-
7	Arsenic[8]	0.005	mg/L	≤0.05[a]	Normal
8	Copper[7]	ND	mg/L	≤2[b]	LOD = 0.02 mg/L
9	Iron[7]	< 0.1	mg/L	≤1[c]	Normal
10	Lead[7]	ND	mg/L	≤0.01 [c]	LOD = 0.1 mg/L
11	Manganese[3]	< 0.01	mg/L	≤0.4 [c]	Normal
12	Zinc[3]	< 0.02	mg/L	≤3 [c]	Normal

"ND" = Not Detected "LOD" = Lower limit of detection " - " = No Reference Standard

Tested by	Checked by	Approved by
Daw May Khine Lab. Technician II Ecological Laboratory ALARM	Daw Lin Myat Myat Aung Lab. Technician I Ecological Laboratory ALARM	Dr. Aye [illegible] Laboratory Manager Ecological Laboratory (ALARM)

531 (D), MarlarMyaingYeikThar Street, Kamayut Tsp., Yangon, Myanmar Tel: 01-503301, 01-503302, 09-407496078
Email: aelab@alarmmyanmar.org , websites: www.alarmmyanmar.org

APPENDIX E
Healthcare Facility

Thu Kha Su San
Specialist Clinic & Laboratory Centre

ISO 9001 : 2015

Sales of various Medications and Advanced Diagnostics

To : **Myanmar Cotton Spinning Garment Co.,Ltd**

Address : **Plot No.93/A, Hlaing Thar Yar Industrial Zone (3), HlaingThar Yar Township, Yangon Region, Myanmar.**

From : **Thu Kha Su San Specialist Clinic & Laboratory Centre**

Date : **20th Oct 2023**

This agreement is made between **Thu Kha Su San Specialist Clinic & Laboratory Centre** and **Myanmar Cotton Spinning Garment Co.,Ltd**. This agreement here in after will be know as **Myanmar Cotton Spinning Garment Co.,Ltd** and **TKSS** Corporate Health Benefits Contract. The agreement will commence on 20.10.2023 and will remain effective for a period of 12 months. The agreement is renewable after a subsequent period of 12 months with the approval from both parties.

1. Corporate Benefits

The OPD service will be given in TKSS (Thu Kha Su San Specialist Clinic & Laboratory Centre). In TKSS, emergency and inpatient services will be rendered for 24hrs, 7 Days a week. For the benefit of our corporate partner, we shall provide discount on our Health Care Service according to the following policy.

Discount will be given to:

(a) Medical Services

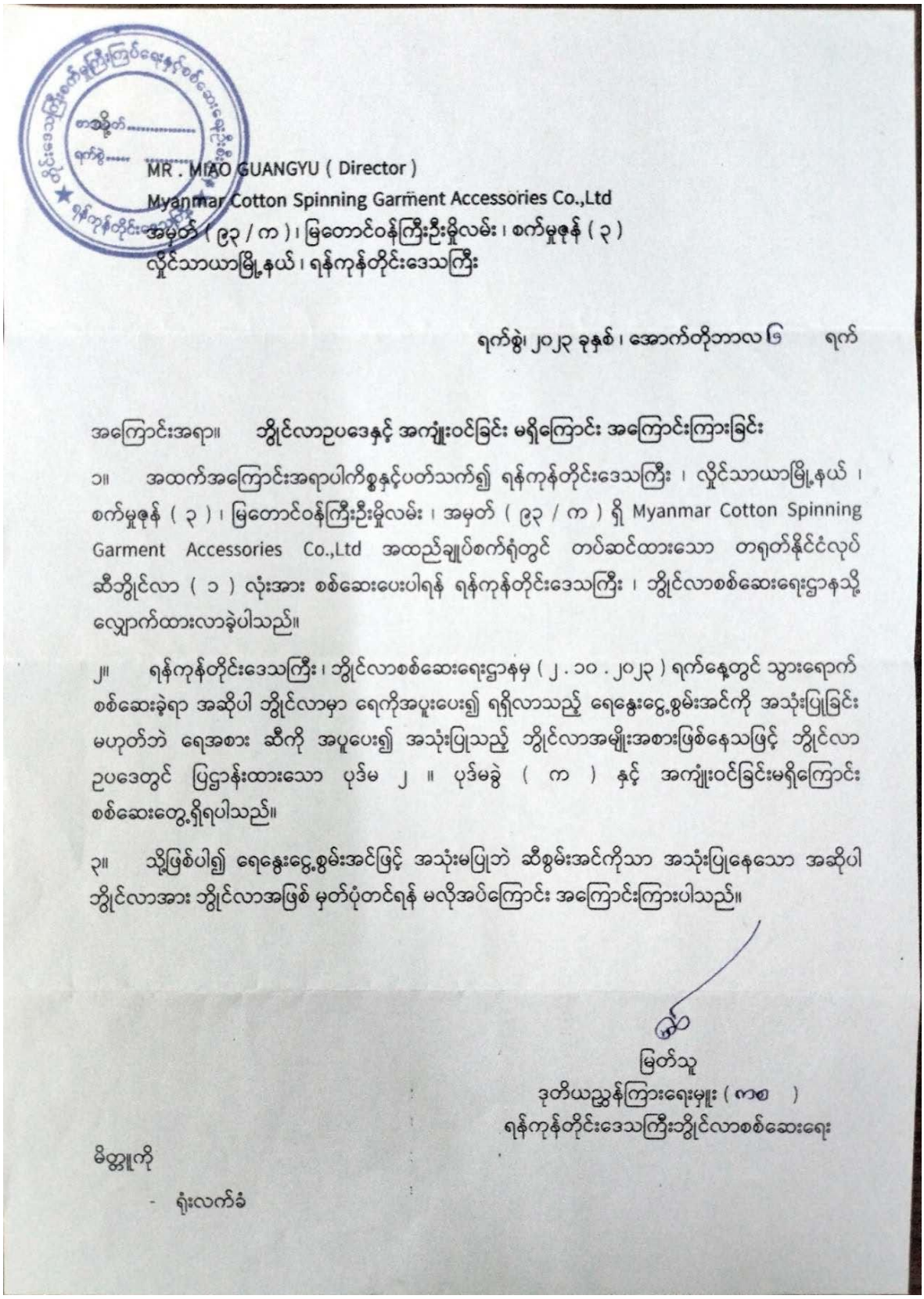
No	Description	Percentage Discount
1.	OPD Services (Except - Specialist's Fee and Pharmacy Service)	20 %
2.	Laboratory Test (Within the capacity of TKSS Laboratory)	5%
3.	Imaging Investigations	5%
4.	Dental Services	5%
5.	Physical Therapy and Rehabilitation Services)	5%

HR Manager
Daw Hay Man Nway
Myanmar Cotton Spinning Garment Co.,Ltd

Chief Of the Clinic
Dr. Thant Zaw Htet
Thu Kha Su San Specialist Clinic & Laboratory

No.6, Ward(6), Kyansitthar Street, Hlaing Tharyar Township, Yangon.
Ph: 09 775067678, 09 685017108, 09 258738025

APPENDIX F
Boiler Certificate



MR . MIAO GUANGYU (Director)
Myanmar Cotton Spinning Garment Accessories Co.,Ltd
အမှတ် (၉၃ / က) ၊ မြတောင်ဝန်ကြီးဦးမှူလမ်း ၊ စက်မှုဇုန် (၃)
လှိုင်သာယာမြို့နယ် ၊ ရန်ကုန်တိုင်းဒေသကြီး

ရက်စွဲ၊ ၂၀၂၃ ခုနှစ် ၊ အောက်တိုဘာလ ၆ ရက်

အကြောင်းအရာ။ ဘွိုင်လာဥပဒေနှင့် အကျုံးဝင်ခြင်း မရှိကြောင်း အကြောင်းကြားခြင်း

၁။ အထက်အကြောင်းအရာပါကိစ္စနှင့်ပတ်သက်၍ ရန်ကုန်တိုင်းဒေသကြီး ၊ လှိုင်သာယာမြို့နယ် ၊ စက်မှုဇုန် (၃) ၊ မြတောင်ဝန်ကြီးဦးမှူလမ်း ၊ အမှတ် (၉၃ / က) ရှိ Myanmar Cotton Spinning Garment Accessories Co.,Ltd အထည်ချုပ်စက်ရုံတွင် တပ်ဆင်ထားသော တရုတ်နိုင်ငံလုပ် ဆီဘွိုင်လာ (၁) လုံးအား စစ်ဆေးပေးပါရန် ရန်ကုန်တိုင်းဒေသကြီး ၊ ဘွိုင်လာစစ်ဆေးရေးဌာနသို့ လျှောက်ထားလာခဲ့ပါသည်။

၂။ ရန်ကုန်တိုင်းဒေသကြီး ၊ ဘွိုင်လာစစ်ဆေးရေးဌာနမှ (၂ . ၁၀ . ၂၀၂၃) ရက်နေ့တွင် သွားရောက် စစ်ဆေးခဲ့ရာ အဆိုပါ ဘွိုင်လာမှာ ရေကိုအပူးပေး၍ ရရှိလာသည့် ရေနွေးငွေ့စွမ်းအင်ကို အသုံးပြုခြင်း မဟုတ်ဘဲ ရေအစား ဆီကို အပူပေး၍ အသုံးပြုသည့် ဘွိုင်လာအမျိုးအစားဖြစ်နေသဖြင့် ဘွိုင်လာ ဥပဒေတွင် ပြဋ္ဌာန်းထားသော ပုဒ်မ ၂ ။ ပုဒ်မခွဲ (က) နှင့် အကျုံးဝင်ခြင်းမရှိကြောင်း စစ်ဆေးတွေ့ရှိရပါသည်။

၃။ သို့ဖြစ်ပါ၍ ရေနွေးငွေ့စွမ်းအင်ဖြင့် အသုံးမပြုဘဲ ဆီစွမ်းအင်ကိုသာ အသုံးပြုနေသော အဆိုပါ ဘွိုင်လာအား ဘွိုင်လာအဖြစ် မှတ်ပုံတင်ရန် မလိုအပ်ကြောင်း အကြောင်းကြားပါသည်။

မြတ်သူ
ဒုတိယညွှန်ကြားရေးမှူး (ကစ)
ရန်ကုန်တိုင်းဒေသကြီးဘွိုင်လာစစ်ဆေးရေး

မိတ္တူကို
- ရုံးလက်ခံ

APPENDIX G
Material Safety Data Sheet

SAFETY DATA SHEET

JOTUN
Jotun Protects Property

Acrylic Emulsion Primer

Section 1. Identification

Product name : Acrylic Emulsion Primer

Product code : 4100

Product description : Paint.

Product type : Liquid.

Other means of identification : Not available.

Supplier's details :
Jotun UAE Ltd. L.L.C.
P.O.Box 3671, Dubai, U.A.E.
Tel: 009714 3395000
Fax:009714 3380666

Jotun Abu Dhabi L.L.C.
P.O.box-3714
Abu Dhabi U.A.E.
Tel: 00971 2 5510300
Fax:00971 2 5510232

SDSJotun@jotun.com

Emergency telephone number : SHE Dept. Jotun AS, Norway
+47 33 45 70 00

Section 2. Hazards identification

Classification of the substance or mixture : SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

GHS label elements

Signal word : No signal word.

Hazard statements : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General : P102 - Keep out of reach of children.

Prevention : P273 - Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.

EC number : Mixture.

Product code : 4100

Ingredient name	%	CAS number
Alcohols, C16-18 and C18-unsatd., ethoxylated C(M)IT/MIT (3:1)	≤0.3 <0.003	68920-66-1 55965-84-9

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying to EN 166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection :

Section 8. Exposure controls/personal protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to EN374.
Recommended, gloves(breakthrough time) > 8 hours: nitrile rubber, neoprene, PVC
May be used, gloves(breakthrough time) 4 - 8 hours: 4H

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. By spraying : particulate filter (FFP2 / N95). In confined spaces, use compressed-air or fresh-air respiratory equipment.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Colour : White.

Odour : Characteristic.

Odour threshold : Not applicable.

pH : 8 to 10

Melting point : 0

Boiling point : Lowest known value: 100°C (212°F) (water). Weighted average: 102°C (215.6°F)

Flash point : Not available.

Evaporation rate : Highest known value: 0.36 (water) Weighted average: 0.35compared with butyl acetate

Flammability (solid, gas) : Not applicable.

Lower and upper explosive (flammable) limits : 2.6 - 12.6%

Vapour pressure : Highest known value: 3.2 kPa (23.8 mm Hg) (at 20°C) (water). Weighted average: 3.13 kPa (23.48 mm Hg) (at 20°C)

Vapour density : Highest known value: 2.6 (Air = 1) (propylene glycol).

Density : 1.45 g/cm³

Solubility : Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C): >0.205 cm^2/s (>20.5 cSt)

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
C(M)IT/MIT (3:1)	LD50 Oral	Rat	53 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Alcohols, C16-18 and C18-unsatd., ethoxylated	Skin - Mild irritant	Mammal - species unspecified	-	-	-

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
C(M)IT/MIT (3:1)	skin	Mammal - species unspecified	Sensitising

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Alcohols, C16-18 and C18-unsatd., ethoxylated	Acute LC50 1.3 mg/l	Fish	96 hours
C(M)IT/MIT (3:1)	Acute EC50 0.048 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 0.0052 mg/l	Algae - Skeletonema costatum	48 hours
	Acute EC50 0.1 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.22 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Acute NOEC 0.00064 mg/l	Algae - Skeletonema costatum	48 hours
	Chronic NOEC 0.0012 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Chronic NOEC 0.004 mg/l	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.098 mg/l	Fish - Oncorhynchus mykiss	28 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
C(M)IT/MIT (3:1)	-	-	Not readily

Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Alcohols, C16-18 and C18-unsatd., ethoxylated	4.2	-	high
C(M)IT/MIT (3:1)	-	3.16	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product : No known specific national and/or regional regulations applicable to this product (including its ingredients).

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

History

Date of printing : 16.12.2021

Date of issue/Date of revision : 16.12.2021

Date of previous issue : No previous validation

Version : 1

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.

APPENDIX H
Public Consultation Meeting

Attendant List

MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED

လူထုတွေ့ဆုံဆွေးနွေးပွဲသို့တက်ရောက်အကြံပြုသူများစာရင်း

နေ့စွဲ- ၂၄ ရက်၊ ဇန်နဝါရီလ၊ ၂၀၂၄ ခုနှစ်

စဉ်	အမည်	ရာထူး	ဌာန/အဖွဲ့အစည်း	ဖုန်းနံပါတ်	လက်မှတ်
၁။	ဦးမြင့်ကျော်ဦး	ဒု/၀၀ ညွှန်ကြားရေးမှူး	ECD	09450059345	(signed)
၂။	ဒေါ်ဖြူသန္တာခင်	ဦးစီးအရာရှိ	ECD	09962637055	(signed)
၃။	ဒေါ်သယ်ယု	ဒု-ည/၀၁ ဦးစီး	ECD	09670446105	(signed)
၄	ဦးအောင်ကျော်ဦး	EO	လှိုင်သာယာ စက်မှုဇုန် စီမံခန့်ခွဲမှုကော်မတီ	09-894 5056960	(signed)
၅။	မသူဇာခိုင်ထွန်း	Office Staff	" "	09-894144448	(signed)
၆။	မဟေမာဝင်းမြင့်	HR Manager	Myanmar Cotton Spinning	09-422496373	(signed)
၇။	Mr Zhao Weiqing	Director	"	09-688456777	
၈။	ဦးဖြိုးဝင်း	Translator	"		
၉	မသီရိကျော်ရှင်		" "	09-786671553	(signed)
၁၀။	မဖြူစင်သင့်			09-777074880	(signed)

MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED

လူထုတွေ့ဆုံဆွေးနွေးပွဲသို့တက်ရောက်အကြံပြုသူများစာရင်း

နေ့စွဲ- ၂၄ ရက်၊ ဇန်နဝါရီလ၊ ၂၀၂၄ ခုနှစ်

စဉ်	အမည်	ရာထူး	ဌာန/အဖွဲ့အစည်း	ဖုန်းနံပါတ်	လက်မှတ်
၁၁	မစုစန္ဒီဝေ			၀၉-၆၇၇၀၂၃၁၈၃	[signature]
၁၂	ခြေမြတ်နိုး			၀၉-၆၈၀၇၅၆၈၃၇	[signature]
၁၃	ဦးလှဘိုး			၀၉-၉၆၅၀၄၁၉၁၀	[signature]
၁၄	နိုင်နိုင်			၀၉-၂၅၀၉၈၆၈၂၂	[signature]
၁၅	ဒေါ်ပြည့်ဖြိုးဝေ	Environmental Consultant	Myanmar Environmental Solutions Co., Ltd.	၀၉-၄၀၂၇၁၉၀၀၁	[signature]
၁၆	ဦးထွန်းလင်းကျော်	〃	〃	၀၉-၄၄၈၈၄၁၀၉၀	[signature]

MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED ၏ အထည်ချုပ်လုပ်ငန်းများတွင်သုံးသော Gunned Cotton, Eiderdown Cotton and Honing များထုတ်လုပ်၍ ပြည်တွင်းရှိ CMP အထည်ချုပ်လုပ်ငန်းများသို့ ရောင်းချခြင်းလုပ်ငန်း

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်(EMP)အစီရင်ခံစာ အတွက် သက်ဆိုင်သူများနှင့် ပွေ့ဖက်ဆွေးနွေးပွဲ အခမ်းအနား

၂၄ ဇွန်၊ တနင်္လာနေ့၊ ၂၀၂၄ ခုနှစ်

အစည်းအဝေး အကြောင်းအရာ

၁။ MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED အား မိတ်ဆက်ခြင်း

၂။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်(EMP)အစီရင်ခံစာအား မိတ်ဆက်ခြင်း

၃။ ပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေးတိုင်းတာမှု

၄။ ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုဆန်းစစ်ခြင်း

၅။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်

၆။ စက်ရုံ၏ဆောင်ရွက်ချက်များ

MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED
စက်ရုံတည်နေရာပြမြေပုံ

MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED
အနီးပတ်ဝန်းကျင်ပြမြေပုံ

MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED ၏ တည်ဆောက်ပုံ

MYANMAR COTTON SPINNING GARMENT ACCESSORIES COMPANY LIMITED	
လုပ်ငန်းအမျိုးအစား	အထည်ချုပ်လုပ်ငန်းများတွင်အသုံးပြုသော Gunned Cotton, Eiderdown Cotton and Honing များ ထုတ်လုပ်၍ ပြည်တွင်းရှိ CMP အထည်ချုပ်လုပ်ငန်းများသို့ ရောင်းချခြင်းလုပ်ငန်း
အတည်ပြုမိန့်အမှတ်	(အတည်ပြုမိန့်အမှတ်- ရာဇတ-၃၉၁/၂၀၂၀)၂၀၂၀ ပြည်နယ်၊ ဒွန်လ၊ ၁၁ ရက်။
ရင်းနှီးမြှုပ်နှံမှု	ဧရိယာနှင့်ပြည် နိုင်ငြားရင်းနှီးမြှုပ်နှံမှု။
မြေဧရိယာ	မြေဧရိယာစုစုပေါင်း- ၁.၀၀၃ ဧက။
အဆောက်အအုံ	(၁၀၃ ပေ x ၁၃၅ ပေ) တစ်ထပ် အဆောက်အဦတစ်လုံး။ (၃၅ ပေ x ၄၀ ပေ) နှစ်ထပ်အဆောက်အဦတစ်လုံး။
ရင်းနှီးမြှုပ်နှံသည့်ကာလ	၁၅ နှစ် ရင်းနှီးမြှုပ်နှံမှု။
စက်ရုံလိပ်စာ	မြေကွက်အမှတ် (၉၃/က) မြေတောင်ဝန်းနီမိုလမ်းနှင့်မင်းသိမ်ကျေးရွာလမ်း၊ လိုင်သာယာစက်မှုလုံ(၃) လိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး။

လုပ်ငန်းလည်ပတ်ရန်အခြေခံလိုအပ်ချက်များ

ရေအသုံးပြုမှုအခြေအနေ	
ရေအရင်းအမြစ်	အဝီစိတွင်းရေ (၂ တွင်း)
အဓိကလိုအပ်ချက်	
ခန့်အပ်မည့်လုပ်သားဦးရေ	ပထမ(၁)နှစ်မှ ၁၀ နှစ်အတွင်း ၁၁၁-၁၄၆ ဦး (လတ်ဖိုတွင် ၃၆ ဦးရှိသည်)
အဓိကကုန်ကြမ်း	Chemical Fiber Material, Glue, Plastic Bag, Printing ink, Solvent, Thread, Interlining, Elastic Fabric, Bopp, Tape
နှစ်စဉ်ထွက်ကုန်ပစ္စည်းပမာဏ	နှစ်စဉ် ပျမ်းမျှထုတ်ကုန်အရေအတွက် Gunned Cotton (၁,၈၀၀ မှ ၂,၁၀၀ တန်), Elderdown Cotton (၃၆၀ မှ ၆၀၀ တန်), Honing (၁,၈၀၀,၀၀၀ မှ ၁,၁၀၀,၀၀၀ မီတာ)

လုပ်ငန်းလည်ပတ်ရန်အခြေခံလိုအပ်ချက်များ

ဘွိုင်လာအသုံးပြုမှုအခြေအနေ	
ဆီဘွိုင်လာ	တစ်လလျှင် ဆီ ၁၆ ဂါလံခန့်, လောင်စာ- တစ်လလျှင်ထင်း ၁၀ တန် ခေါင်းတိုင်အမြင့် - ၅၀ ပေ

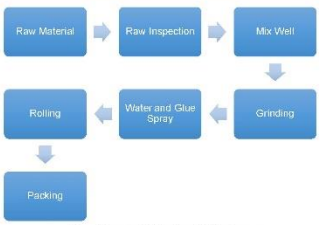
လုပ်ငန်းလည်ပတ်ရန်အခြေခံလိုအပ်ချက်များ

လျှပ်စစ်အသုံးပြုမှုအခြေအနေ	
Transformer	400 KVA (Electricity usage : 5984 kWh per month)
Generator	480 KVA, 40 KVA (Fuel requirement : 2000 liters per month)

ထုတ်လုပ်ပုံအဆင့်ဆင့်

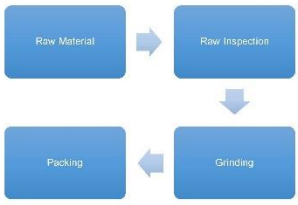
Flow Diagram of Honing Process

ထုတ်လုပ်ပုံအဆင့်ဆင့်



Flow Diagram of Elderdown Cotton Process

ထုတ်လုပ်ပုံအဆင့်ဆင့်



Flow Diagram of Gunned Cotton Process

ထုတ်လုပ်ပုံအဆင့်ဆင့်

Sewing

Mix Well

ထုတ်လုပ်ပုံအဆင့်ဆင့်

Grinding in Eiderdown Cotton Process

Water and Glue Spray

ထုတ်လုပ်ပုံအဆင့်ဆင့်

Rolling

Packing

Grinding in Gunned Cotton Process

ထုတ်ကုန်ပစ္စည်းများ

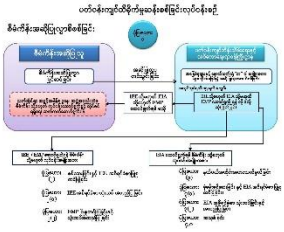
Eiderdown Cotton

Gunned Cotton Finished Product

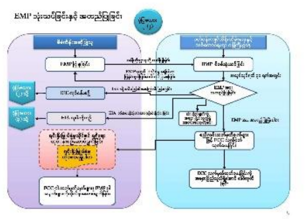
Honing

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) အစီရင်ခံစာအား မိတ်ဆက်ခြင်း

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ပြုလုပ်ခြင်း

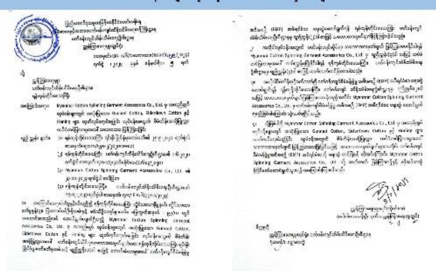


ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် ပြုလုပ်ခြင်း



ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီအတည်ပြုမိန့်

ပတ်ဝန်းကျင်ဆိုင်ရာသဘောထားမှတ်ချက်



ပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေးတိုင်းတာခြင်း

စီမံကိန်းပတ်ဝန်းကျင်အနေအထား

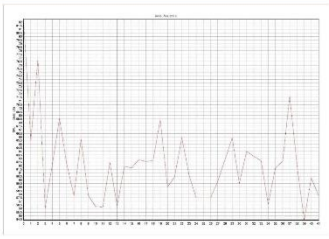
စဉ်	အကြောင်းအရာ	ဖော်ပြချက်
၁။	ကိုသြဒိနိတ်အမှတ်	မြောက်လတ္တီကျု ၁၆°၅၁′၇.၅၀"နှင့် အရှေ့လောင်ဂျီကျု ၉၆°၄′၅.၈၇"
၂။	ရာသီဥတုအခြေအနေ	လှိုင်သာယာမြို့နယ်၏ နှစ်စဉ်ပျမ်းမျှအမြင့်ဆုံးအပူချိန် ၄၂°C အနိမ့်ဆုံးအပူချိန် ၂၇°C
၃။	စက်ရုံနေရာတွင်မြေအသုံးချမှု	စက်မှုလုပ်ငန်းနှင့်သက်ဆိုင်သောမြေအသုံးချမှုပုံစံ (စက်မှုဇုန်)
၄။	လမ်းပန်းဆက်သွယ်ရေး	မြတောင်ဝန်ဦးမိုလမ်းနှင့်မင်းသိင်္ခကျော်စွာလမ်း
၅။	သစ်တောဧရိယာ	မရှိ
၆။	ကန့်သတ်ကာကွယ်ထားသော ဧရိယာ	မရှိ
၇။	တိုင်းတာမှုရလဒ်	❑ ဆူညံသံ တိုင်းတာခြင်း ❑ အလင်းရောင် တိုင်းတာခြင်း ❑ လေထုအရည်အသွေး တိုင်းတာခြင်း ❑ Boiler Stack Emission ❑ မြေအောက်ရေအရည်အသွေး

ဆူညံသံတိုင်းတာမှု

Date & Time	Location	GPS location	Noise Result	NEQ Guideline
9. 8. 2023	Operation Area	16°51'8.28"N 96°4'6.35"E	62.20 dBA	70 dBA

အထက်ဖော်ပြပါ ဆူညံသံတိုင်းတာမှုရလဒ်များအရ Myanmar Cotton Spinning Garment Accessories Company Limited ၏ ဆူညံသံမှာ National Environmental Quality (Emission) Guildline အတွင်းရှိနေသည်ကို ဆန်းစစ်တွေ့ရှိရပါသည်။

Myanmar Cotton Spinning Garment Accessories Company Limited ၏ ဆူညံသံတိုင်းတာမှုပြ ဂရပ်



အလင်းရောင်တိုင်းတာမှု

No.	Location	Measure value (Lux)	Standard*	Remark
1	Warehouse	405	300	Above
2	Sewing Area	612	400	Above
3	Grinding Area	1205	1000	Above
4	Quality Control	985	900	Above
5	Packing Area	732	600	Above

လေထုတိုင်းတာမှု (Indoor Area)

Parameters	Observed value	Guideline value	Unit	Organization	Period
PM_{10}	32.63	50	µg/m³	NEQG	24 hrs
$PM_{2.5}$	13.05	25	µg/m³	NEQG	24 hrs
SO_2	1.50	20	µg/m³	NEQG	24 hrs
NO_2	10.62	200	µg/m³	NEQG	1 hr
O_3	25.48	100	µg/m³	NEQG	8 hrs
CO2	0.47	NG	µg/m³	-	24 hrs

လေထုတိုင်းတာမှု (Outdoor Area)

Parameters	Observed value	Guideline value	Unit	Organization	Period
PM_{10}	24.23	50	µg/m³	NEQG	24 hrs
$PM_{2.5}$	10.85	25	µg/m³	NEQG	24 hrs
SO_2	3.08	20	µg/m³	NEQG	24 hrs
NO_2	17.54	200	µg/m³	NEQG	1 hr
O_3	39.79	100	µg/m³	NEQG	8 hrs
CO2	0.71	NG	µg/m³	-	24 hrs

Boiler Stack Emission

Parameters	Observed value	Guideline value	Unit	Organization	Period
CO_2	431	5000	ppm	OSHA	8 hrs
SO_2	0.01	5	ppm	OSHA	8 hrs
NO_2	0.02	5	ppm	OSHA	8 hrs
CO	1.76	50	ppm	OSHA	8 hrs

မြေအောက်ရေ အရည်အသွေးတိုင်းတာမှု


ALARM Ecological Laboratory
Water Testing Result Report

ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုဆန်းစစ်ခြင်း

ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းနည်းလမ်း

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

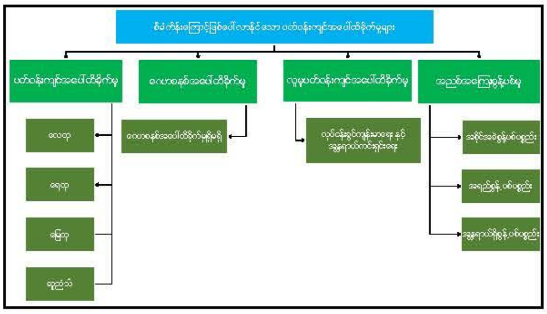
ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းနည်းလမ်း

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

Significant Point (SP) = (Magnitude + Duration + Extent) * 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



ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုဆန်းစစ်ခြင်း

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့် သတ်မှတ်ချက် M	D	E	P	SP	ထိခိုက်မှုအဆင့်
လုပ်ငန်းလည်ပတ်ခြင်းကာလ							
လေထုညစ်ညမ်းမှု	• သယ်ယူပို့ဆောင်ရေးသုံး မော်တော်ယာဉ်များကြောင့် ဖုန်မှုန့်နှင့်ဖန်လုံအိမ်ဓာတ်ငွေ့ ထွက်ခြင်း၊ • လုပ်ငန်းခွင်အတွင်း ဖုန်မှုန့်ထွက်ခြင်း၊ • မီးဖိုနှင့်ရေနွေးငွေ့ဘွိုင်လာတို့မှ မီးခိုး ထွက်ခြင်း၊ • အရေးအပေါ်သုံးမီးစက်မှ စွန့်ထုတ် အခိုးအငွေ့ထွက်ခြင်း။	၃	၄	၁	၃	၂၄	အနည်းငယ်
ရေထုညစ်ညမ်းမှု	• တာဖိုဆောင်များမှထွက်ရှိသော စွန့်ထုတ်ရေများ၊ • မိလ္လာစွန့်ထုတ်ရေများ • စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှ ဆီယိုဖိတ်ခြင်း။	၂	၄	၂	၃	၂၄	အနည်းငယ်

ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုဆန်းစစ်ခြင်း

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့် သတ်မှတ်ချက် M	D	E	P	SP	ထိခိုက်မှုအဆင့်
မြေဆီလွှာညစ်ညမ်းမှု	• မတော်တဆ စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှ ဆီယိုဖိတ်ခြင်း။	၁	၄	၁	၁	၆	အလွန်နည်း
ဆူညံသံ	• ဘွိုင်လာ၊ မီးစက်၊ လေမှုတ်စက်၊ လုပ်ငန်းသုံးစက်ကိရိယာများနှင့် မော်တော်ယာဉ် အသုံးပြုမှုကြောင့် ပတ်ဝန်းကျင်ဆူညံမှု။	၃	၄	၁	၃	၂၄	အနည်းငယ်
မီးဘေးအန္တရာယ်	• လျှပ်စစ်သွယ်တန်းအသုံးပြုမှုအားနည်းခြင်း။ • စွန့်ပစ်ပစ္စည်းများအား ယာယီ သိုလှောင်ထားရှိခြင်း။ • ကုန်ကြမ်းသိုလှောင်မှု။	၃	၄	၂	၄	၃၆	အသင့်အတင့်

ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုဆန်းစစ်ခြင်း

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့် သတ်မှတ်ချက် M	D	E	P	SP	ထိခိုက်မှုအဆင့်
လုပ်ငန်းခွင် ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ကျန်းမာရေး	• စက်ပစ္စည်းများကိုင်တွယ်အသုံးပြုရာမှ မတော်တဆထိခိုက်ခြင်း။ • အရေးပေါ်မီးစက်များနှင့် စက်ကိရိယာများမှ ဆူညံသံများထွက်ရှိခြင်း။ • ဂျင်နယ်ရေတာလည်ပတ်ရာမှထွက်ရှိလာသောအနံ့အငွေ့များ။	၃	၄	၁	၄	၃၂	အသင့်အတင့်
စွန့်ပစ်အမှိုက်	• ထုတ်လုပ်ရာတွင် ကျန်ရှိသော ဂွမ်းစ အပိုင်းအစများ။ • ကော်ပုံးခွံများ • ထုတ်ပိုးမှုမှထွက်ရှိသော အမှိုက်များ • ရုံးတွင်းစွန့်ပစ်ပစ္စည်းများ။	၃	၄	၁	၂	၁၆	အနည်းငယ်

ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုဆန်းစစ်ခြင်း

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့် သတ်မှတ်ချက် M	D	E	P	SP	ထိခိုက်မှုအဆင့်
စွန့်ပစ်အရည်	• စားသောက်ဆောင်မှစွန့်ထုတ်ရေများ။ • မိလ္လာကန်။	၂	၄	၂	၃	၂၄	အနည်းငယ်
အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်းများ	• စက်များမှ ဆီယိုစိမ့်မှုများ။ • မော်တော်ယာဉ်များပြုပြင် ထိန်းသိမ်းမှုမှ ထွက်ရှိသည့်အမှိုက်များ။	၃	၄	၁	၃	၂၄	အနည်းငယ်
စီဝမျိုးစုံမျိုးကွဲ	• စီမံကိန်းလည်ပတ် ဆောင်ရွက်မှု။	၁	၄	၁	၁	၆	အလွန်နည်း

ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုဆန်းစစ်ခြင်း

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့် သတ်မှတ်ချက် M	D	E	P	SP	ထိခိုက်မှုအဆင့်
လုပ်ငန်းပိတ်သိမ်းခြင်းကာလ							
လေထုညစ်ညမ်းမှု	• အဆောက်အဦများ ဖြိုချမှုများ။ • ဖြိုချပစ္စည်းများ သယ်ယူခြင်း။	၃	၁	၂	၄	၂၄	အနည်းငယ်
ရေထုညစ်ညမ်းမှု	• ဖြိုချပစ္စည်းများနှင့် မိလ္လာဖျက်ဆီးမှုများ။	၃	၁	၂	၃	၁၈	အနည်းငယ်
မြေဆီလွှာညစ်ညမ်းမှု	• အဆောက်အဦနှင့်ဆက်စပ်ပစ္စည်းများ။ • ဖြိုချပစ္စည်းများသယ်ယူမှုများ။	၃	၁	၁	၃	၁၅	အနည်းငယ်

ပတ်ဝန်းကျင်ဆိုင်ရာသက်ရောက်မှုဆန်းစစ်ခြင်း

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့် သတ်မှတ်ချက် M	D	E	P	SP	ထိခိုက်မှုအဆင့်
ဆူညံသံ	• အဆောက်အဦဖြိုချဖျက်ဆီးခြင်း။ • သယ်ယူပို့ဆောင်ရေးယာဉ်များ။	၃	၁	၂	၃	၁၈	အနည်းငယ်
စွန့်ပစ်အမှိုက်	• အဆောက်အဦများဖြိုချဖျက်ဆီးခြင်း။	၂	၁	၁	၃	၁၂	အလွန်နည်း
အန္တရာယ်ရှိအမှိုက်	• စက်များမှ ဆီယိုစိမ့်မှုများ။ • မော်တော်ယာဉ်ပြုပြင်ထိန်းသိမ်းခြင်းမှ ထွက်ရှိလာသည့် အမှိုက်များ။	၂	၁	၁	၃	၁၂	အလွန်နည်း
လုပ်ငန်းခွင်ဘေးအန္တရာယ် ကင်းရှင်းရေး	• အဆောက်အဦများ ဖြိုချမှုများ။ • ဖြိုချပစ္စည်းများ သယ်ယူမှုများ။	၃	၁	၂	၃	၁၈	အနည်းငယ်

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်

လေထုညစ်ညမ်းမှုလျှော့ချရေးဆိုင်ရာစီမံခန့်ခွဲမှု

ရည်ရွယ်ချက်	▪ စီမံကိန်းကြောင့် စက်ရုံမှ ထွက်သော ဓာတ်ငွေ့များနှင့် မီးစက်များမှ ထွက်ရှိသော ဓာတ်ငွေ့များကြောင့် လေထုညစ်ညမ်းမှုကို လျှော့ချရန်။ ▪ အစိုးရနှင့် သက်ဆိုင်သော နည်းဥပဒေများကို လိုက်နာဆောင်ရွက်ရန်။
လိုက်နာရမည့် စည်းကမ်း	▪ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅) ▪ မော်တော်ယာဉ် အက်ဥပဒေ (၂၀၁၅)
စီမံခန့်ခွဲမှု အစီအစဉ်	▪ စက်ရုံအတွင်းနှင့် အနားဝန်းကျင်တွင် သစ်ပင်ပန်းမန်စိုက်ပျိုးခြင်း။ ▪ စက်ရုံအတွင်း မည်သည့်စွန့်ပစ်ပစ္စည်းများအား မီးရှို့ဖျက်စီးခြင်း မပြုလုပ်ခြင်း။ ▪ လုပ်သားများအား Personal Protective Equipment (PPE) ဟုခေါ်သော အကာအကွယ်ပစ္စည်းများ ထောက်ပံ့ခြင်း။ အသိပညာပေး သင်တန်းများပေးခြင်း။
တာဝန်ယူရမည့် ပုဂ္ဂိုလ်	▪ ပြုပြင်ထိန်းသိမ်းရေးအရာရှိ - လေထုညစ်ညမ်းမှုလျှော့ချရေးနည်းလမ်းများ။ ▪ ထုတ်လုပ်ရေးမန်နေဂျာ- လုပ်ငန်းခွင်လေထုသန့်ရှင်းရေး။ ▪ မန်နေဂျာ - ပတ်ဝန်းကျင်လေအရည်အသွေးတိုင်းတာရန် (ThirdParty) ဖြင့်ညှိနှိုင်းဆောင်ရွက်ရန်။

ရေညှိသံချေးလျှော့ချရေးဆိုင်ရာစီမံခန့်ခွဲမှု

ရည်ရွယ်ချက်	ဘေးပတ်ဝန်းကျင်ညစ်ညမ်းမှုမဖြစ်ပေါ်စေရန် နှင့် စက်ရုံရှိ မီးစက်နှင့် အခြားစက်ပစ္စည်းများ ကြောင့် လုပ်သားများအပေါ် ထိခိုက်မှု လျှော့ချရန်။
လိုက်နာရမည့် စည်းကမ်း	▪ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅) ▪ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	▪ မီးစက်၊ လေမှုတ်စက်တို့ကို ရေညှိသံထိန်းချုပ်နိုင်သော ရန်းဖွဲ့စည်းမှုပုံစံ တည်ဆောက်ထားခြင်း။ ▪ လုပ်ငန်းသုံးယာဉ်များကိုရေညှိသံလျှော့ချရန်သတ်မှတ်အရှိန်ထက်ကျော်လွန်မမောင်းစေခြင်း။ ▪ လုပ်သားများအား Personal Protective Equipment (PPE) ဟုခေါ်သော အကာအကွယ်ပစ္စည်းများ ထောက်ပံ့ခြင်း၊ အသိပညာပေး သင်တန်းများပေးခြင်း။
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ - ရေညှိသံတိုင်းတာရန် (ThirdParty) ဖြင့်ညှိနှိုင်းဆောင်ရွက်ရန်

မီးဘေးအန္တရာယ်ဆိုင်ရာစီမံခန့်ခွဲမှု

ရည်ရွယ်ချက်	မီးလောင်မှုဖြစ်ပွားနိုင်သည့်နေရာများမှ မီးဘေးအန္တရာယ်ကို လျှော့ချနိုင်စေရန်အတွက် မီးဘေးအန္တရာယ်ဆိုင်ရာထိန်းချုပ်ရေး အလေ့အကျင့်များကို အကောင်အထည်ဖော်ဆောင်ရွက်ရန်။
လိုက်နာရမည့် စည်းကမ်း	▪ မြန်မာနိုင်ငံမီးသတ်တပ်ဖွဲ့ဥပဒေ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	▪ အရေးပေါ်အခြေအနေအတွက် မီးသတ်ဆေးဘူးများနှင့် မီးသတ်ပိုက်များထားရှိပေးခြင်း။ ▪ အများသူငှာဧရိယာအတွင်း အရေးပေါ်ထွက်ပေါက်နှင့် စုဝေးရာနေရာတို့ကို ညွှန်ပြထားခြင်း။ ▪ လက်ရှိမီးငြိမ်းသတ်ရေးကိရိယာများကို ပုံမှန်စစ်ဆေးခြင်းပြုလုပ်ရခြင်း၊ မီးလောင်မှုအရေးပေါ် အခြေအနေအတွက် မီးသတ်ရေလှောင်ကန်ထားရှိခြင်း။ ▪ မီးလောင်မှုဖြစ်ပွားပါက အလုပ်သမားများအား သတိပေးရန်အတွက် စက်ရုံတွင် အရေးပေါ်မီးသတိပေးချက်များ တပ်ဆင်ထားခြင်း။ ▪ အရေးပေါ်အခြေအနေအတွက် အဓိကဝင်ပေါက်များနှင့် လမ်းကြောင်းများကို မီးဘေးအရေးပေါ် အခြေအနေများအတွက် ပစ္စည်းများ သို့မဟုတ် စက်များဖြင့် ပိတ်ဆို့ထားခြင်း မပြုရ။
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	Operation Manager

လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့်ကျန်းမာရေးဆိုင်ရာစီမံခန့်ခွဲမှု

ရည်ရွယ်ချက်	လုပ်ငန်းခွင်နှင့်ဆက်စပ်သော ထိခိုက်ဒဏ်ရာရမှုနှင့်ဖျားနာမှုကို လျှော့ချရန် လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်ကင်းရှင်းရေးစံနှုန်းများတိုးတက်ကောင်းမွန်လာစေရန်အတွက် မူဘောင်တစ်ခုကို ပံ့ပိုး ပေးနိုင်ရန်။
လိုက်နာရမည့် စည်းကမ်း	▪ ပြည်သူ့ကျန်းမာရေးဥပဒေ (၁၉၇၂)၊ ကူးစက်ရောဂါကာကွယ်ထိန်းချုပ်ရေးဥပဒေ ၁၉၉၅ (ပြင်ဆင်သည့်ဥပဒေ ၂၀၁၁)၊ လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့်ကျန်းမာရေးဥပဒေ (၂၀၁၉)
စီမံခန့်ခွဲမှုအစီအစဉ်	▪ အရေးပေါ်သူနာပြုသင်တန်းများ၊ အန္တရာယ်ကင်းရှင်းရေးသင်တန်းများ၊ မီးဘေးအန္တရာယ်ကာကွယ်ရေးသင်တန်းများနှင့်စက်ပစ္စည်းစနစ်တကျကိုင်တွယ်အသုံးပြုနိုင်ရေးသင်တန်းများကို ဝန်ထမ်းများ အား သင်တန်းပေးခြင်း။ ▪ လုပ်ငန်းခွင်အတွင်း အမြင်အာရုံရှင်းလင်းနိုင်စေရန်နှင့် အန္တရာယ်ကင်းစွာစက်ပစ္စည်းများအား အသုံး ပြုနိုင်ရန် လုံလောက်သော အလင်းရောင် ရရှိစေရန်ဆောင်ရွက်ပေးခြင်း။ ▪ လျှပ်စစ်ဓာတ်လိုက်ခြင်းများမဖြစ်ပေါ်စေရန် စက်ပစ္စည်းများအား ပုံမှန်စစ်ဆေးခြင်းနှင့်ကာကွယ်ရေး နည်းလမ်းများထားရှိပေးခြင်း။ ▪ စက်ရုံမှ အလုပ်သမားများအတွက် တစ်ကိုယ်ရေသုံးကာကွယ်ရေးပစ္စည်းများ ဝတ်ဆင်၍ လုပ်ငန်း ဆောင်ရွက်စေခြင်း။
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	Operation Manager

အစိုင်အခဲစွန့်ပစ်မှု ထိန်းသိမ်းရေးဆိုင်ရာစီမံခန့်ခွဲမှု

ရည်ရွယ်ချက်	စွန့်ပစ်အမှိုက်ထွက်ရှိမှုလျှော့ချရေးနှင့် စွန့်ပစ်အမှိုက်ကြောင့် ပတ်ဝန်းကျင်ညစ်ညမ်းမှုကို လျှော့ချရန်။
လိုက်နာရမည့်စည်းကမ်း	▪ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅) ▪ မြန်မာနိုင်ငံအမျိုးသားအဆင့်စွန့်ပစ်ပစ္စည်းစီမံခန့်ခွဲမှုမဟာဗျူဟာနှင့်ပင်မလုပ်ငန်းအစီအစဉ်(၂၀၁၈-၂၀၃၀)
စီမံခန့်ခွဲမှုအစီအစဉ်	▪ စက်ရုံမှ ညည်သည့်စွန့်ပစ်ပစ္စည်းမှ မြစ်၊ ချောင်း၊ အင်း၊ အိုင် အတွင်းသို့ မစွန့်ပစ်ရ။ ▪ စက်ရုံတွင် စွန့်ပစ်ပစ္စည်းများကို ပြန်လည်အသုံးပြုနိုင်သောပစ္စည်း(ကော်ပုံး) များကို ပြည်တွင်းဝယ်ယူသူများ ထံ ပြန်လည်ရောင်းချခြင်း။ ▪ ထုတ်လုပ်မှုလုပ်ငန်းမှထွက်ရှိလာသည့် ဂွမ်းများအား ထုတ်လုပ်မှုလုပ်ငန်းတွင် ပြန်လည်အသုံးပြုခြင်း။ ▪ စွန့်ပစ်ရန်ပစ္စည်း(လုပ်သားများမှစွန့်ပစ်ပစ္စည်းနှင့်မီးဖိုချောင်ထွက်ပစ္စည်းများ)ကို မြို့တော်စည်ပင်သာယာရေး အဖွဲ့အစည်းနှင့်ချိတ်ဆက်၍ သိမ်းဆည်းစွန့်ပစ်စေခြင်း။ ▪ အန္တရာယ်ရှိပစ္စည်း (စက်ဆီအဟောင်းများ၊ လျှပ်စစ်ပစ္စည်းအပျက်များ၊ သံထည်ပစ္စည်း) များကို ဝယ်ယူသူ ထံမှပြန်လည် သိမ်းဆည်းစေခြင်း။ ▪ စက်ရုံတွင် အမှိုက်စွန့်ပစ်ရန်အတွက် အမှိုက်ပုံးများကို စီမံထားခြင်း။ ▪ စက်ရုံဝန်းထမ်းအားလုံးကို စနစ်တကျ အမှိုက်စွန့်ပစ်ရန် တိုက်တွန်းနိုးဆော်ထားခြင်း။
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	▪ မန်နေဂျာ - စက်ရုံအတွင်းသန့်ရှင်းရေးအတွက်စီမံခန့်ခွဲရန်တာဝန်ရှိသည် ▪ အမှိုက်စွန့်ပစ်မှု ပုံမှန်ပြုလုပ်ရန်နှင့် စွန့်ပစ်ပစ္စည်းဝယ်ယူသူများကို ပုံမှန်ပြုလုပ်ရန် တာဝန်ယူဆောက်ရွက်ရန်

စွန့်ပစ်အရည် ထိန်းသိမ်းရေးဆိုင်ရာစီမံခန့်ခွဲမှု

ရည်ရွယ်ချက်	မြေပေါ်ရေနှင့် မြေအောက်ရေ ညစ်ညမ်းမှုမဖြစ်စေရေး
လိုက်နာရမည့်စည်းကမ်း	▪ ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း (၂၀၁၅) ▪ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာအရည်အသွေး(ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ (၂၀၁၅)
စီမံခန့်ခွဲမှုအစီအစဉ်	▪ စက်ရုံရေမြောင်းများနှင့်မိလ္လာစနစ်ကို စနစ်တကျ သန့်ရှင်းအောင်ထားရှိခြင်း၊ လုံလောက်သည့် အတိုင်းအတာ ပမာဏထားရှိခြင်း။ ▪ မိလ္လာစနစ်ကို ပုံမှန်စစ်ဆေးပြီး လိုအပ်သကဲ့သို့ ထိန်းသိမ်းပြုပြင်ခြင်း။ ▪ စက်ရုံရေမြောင်းအတွင်းတွင် ပိတ်ဆို့မှုမရှိစေရန်နှင့် အနံ့ဆိုးများမထွက်စေရန်စီမံခြင်း။
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ - စွန့်ထုတ်ရေအရည်အသွေးတိုင်းတာရန် (ThirdParty) ဖြင့်ညှိနှိုင်းဆောင်ရွက်ရန်

စွမ်းအင်သုံးစွဲခြင်းဆိုင်ရာစီမံခန့်ခွဲမှု

ရည်ရွယ်ချက်	လျှပ်စစ်သုံးစွဲမှုလျှော့ချစေရန်နှင့် လုပ်ငန်းခွင်အတွင်း လျှပ်စစ်သုံးစွဲမှုကြောင့် အန္တရာယ်မရှိစေရန်
လိုက်နာရမည့်စည်းကမ်း	▪ National Energy Management Committee (Myanmar Energy Master Plan 2015)
စီမံခန့်ခွဲမှုအစီအစဉ်	▪ စက်ရုံတွင်း လျှပ်စစ်သုံးစွဲမှုများအတွက် စွမ်းအင်လျှော့ချနိုင်သည့် စက်ကရိယာများ တပ်ဆင်ခြင်း။ ▪ အသုံးမပြုလျှင် စက်ကရိယာများပိတ်ထားခြင်း။ ▪ စွမ်းအင်အသုံးနည်းသော Lighting စနစ်တပ်ဆင်ခြင်း။ ▪ စက်ပစ္စည်းနှင့် Lighting အသုံးပြုမှုကို စောင့်ကြည့်ထိန်းသိမ်းရေးစနစ်ထားရှိခြင်း (ဥပမာ- အသုံးမပြုပဲမီးဖွင့်ထားခြင်း၊ စက်ဖွင့်ထားခြင်းမျိုး မရှိစေရန်)။
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	မန်နေဂျာ

မြေအောက်ရေသုံးစွဲမှုဆိုင်ရာစီမံခန့်ခွဲမှု

ရည်ရွယ်ချက်	ရေသုံးစွဲမှုလျော့ချရေး
လိုက်နာရမည့်စည်းကမ်း	The Underground Water Act (1930)
စီမံခန့်ခွဲမှုအစီအစဉ်	▪ ရေအသုံးပြုမှု သိရှိနိုင်သော မီတာတပ်ဆင်ခြင်း။ ▪ ဝန်ထမ်းများအားအသိပညာပေးခြင်းနှင့် လိုက်နာဆောင်ရွက်ရန် တိုက်တွန်းခြင်း။ ▪ စက်ရုံရှိတာဝန်ရှိပုဂ္ဂိုလ်များအား (Third Party) နေဖြင့်မြေအောက်ရေအကျိုးရှိရှိအသုံးချရန်စည်းကမ်းချက်နဲ့အညီ လမ်းညွှန်ထားခြင်း။
တာဝန်ယူရမည့် ပုဂ္ဂိုလ်	မန်နေဂျာ ▪ ရေ အသုံးပြုမှုစာရင်း စစ်ဆေးခြင်း ▪ ဝန်ထမ်းများလိုက်နာဆောင်ရွက်မှု စစ်ဆေးခြင်း

အရေးပေါ်အခြေအနေတုန့်ပြန်မှုဆိုင်ရာစီမံခန့်ခွဲမှု

ရည်ရွယ်ချက်	စက်ရုံတွင်းမတော်တဆထိခိုက်မှု လျော့ချရေး
လိုက်နာရမည့်စည်းကမ်း	အလုပ်အကိုင်နှင့် ကျွမ်းကျင်မှုဖွံ့ဖြိုးတိုးတက်ရေးဥပဒေ (၂၀၁၃), ILO guide to Myanmar Labour Law (2017)
စီမံခန့်ခွဲမှုအစီအစဉ်	▪ အရေးပေါ်အခြေအနေဖြစ်သော (မီး၊ ငလျင်၊ ရေကြီးရေလျှံမှု) တို့အတွက် စက်ရုံတွင် စီမံခန့်ခွဲမှုရှိခြင်း။ ▪ စက်ရုံ၏မီးသတ်စနစ်များကို ပုံမှန်စစ်ဆေးခြင်း။ ▪ ရေးဆွဲထားသော အရေးပေါ်တုန့်ပြန်ရေး အစီအစဉ်များကို ဝန်ထမ်းများ အကျွမ်းတဝင်ဖြစ်စေရန် စီမံထားခြင်း။ ▪ လောင်စာသိုလှောင်နေရာများ၊ လျှပ်စစ်ဖြန့်ဖြူးရေးနေရာများကို အဓိကထားပြီး စောင့်ကြည့်စစ်ဆေးခြင်း၊ ပြုပြင်မွမ်းမံခြင်း။ ▪ ပုံမှန်မီးဘေးကာကွယ်ရေး၊ ငလျင်လုပ်ဆတ်လျင် ပြုလုပ်ရမည့်ပုံစံများ၊ ရေကြီးရေလျှံမှုအခြေအနေထိန်းသိမ်းရေး အစီအစဉ်များ၊ ရှေဦးပြုစုခြင်းသင်တန်းများကို ပုံမှန်လေ့ကျင့်မှုများ သင်ကြားမှုများ ပြုလုပ်ခြင်း။ ▪ အရေးပေါ်ဆက်သွယ်ရန် ဖုန်းနံပါတ်၊ လိပ်စာများ၊ အများသူငါမြင်သာစေသောနေရာများတွင် ကပ်ထားခြင်း။ ▪ စက်ရုံတွင်း မီးသတ်အဖွဲ့ငယ်၊ အန္တရာယ်ကင်းရှင်းရေး စောင့်ကြည့်ရေးအဖွဲ့ငယ်များထားရှိပြီး လစဉ် ဆွေးနွေးတိုင်ပင်ခြင်း လေ့ကျင့်ခြင်းများ ပြုလုပ်ရမည်။
တာဝန်ယူရမည့်ပုဂ္ဂိုလ်	Manager and EHS officer ▪ မီးသတ်သင်တန်းများ ၃ လတစ်ကြိမ်ပြုလုပ်ရန်စီမံပေးခြင်း ▪ အရေးပေါ်အခြေအနေနှင့် မတော်တဆထိခိုက်မှုမရှိစေရေး စောင့်ကြည့်စစ်ဆေးခြင်း

ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြည့်မှု

ကဏ္ဍ	အမျိုးအစား	အကြိမ်ရေ	တိုင်းတာမည့်နေရာ	ကုန်ကျစရိတ် (ကျပ်)	တာဝန်ယူဆောင်ရွက်မည့်အဖွဲ့အစည်း
လုပ်ငန်းလည်ပတ်ချိန်ကာလ					
လေအရည်အသွေး	PM2.5, PM10, SO2, NO2, O3, CO	၆ လ တစ်ကြိမ်	စီမံကိန်းဧရိယာအတွင်း	တစ်နှစ်လျှင် ၁၆ သိန်းကျပ်	Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.
ဆူညံသံ	Noise level in decibel (dBA)	၆ လ တစ်ကြိမ်	ထုတ်လုပ်မှုဧရိယာအတွင်း	တစ်နှစ်လျှင် ၅ သိန်းကျပ်	
ရေအရည်အသွေး	မြေအောက်ရေ (pH, Turbidity, Total Solids, Hardness, Chloride, Free Cyanide, Arsenic, Copper, Iron, Lead, Manganese and Zinc)	၆ လ တစ်ကြိမ်	Water Storage Tank	တစ်နှစ်လျှင် ၆ သိန်းကျပ်	
ရေအရည်အသွေး	စွန့်ပစ်ရေ (pH, Turbidity, Conductivity, Iron, Sulfide, TSS, TDS, Manganese, COD, BOD, Cyanide, Copper, Zinc, Carbonate)	၆ လ တစ်ကြိမ်	စက်ရုံမှ စွန့်ပစ်ရေ နောက်ဆုံး စွန့်ထုတ်သည့်နေရာ	တစ်နှစ်လျှင် ၆ သိန်းကျပ်	
စွန့်ပစ်ပစ္စည်း	အစိုင်အခဲစွန့်ပစ်ပစ္စည်း	အပတ်စဉ်	စွန့်ပစ်ပစ္စည်းသိုလှောင်သိမ်းဆည်း သည့်နေရာ	တစ်နှစ်လျှင် ၆ သိန်းကျပ်	
စွန့်ပစ်ပစ္စည်း	စွန့်ပစ်အရည်	အပတ်စဉ်	စက်ရုံအတွင်း ရေမြောင်းများ	တစ်နှစ်လျှင် ၂ သိန်းခွဲကျပ်	
စွန့်ပစ်ပစ္စည်း	အန္တရာယ်ရှိစွန့်ပစ်ပစ္စည်း	အပတ်စဉ်	အန္တရာယ်ရှိစွန့်ပစ်အမှိုက်များ ထားရှိသည့်နေရာ	တစ်နှစ်လျှင် ၃ သိန်းကျပ်	

ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြည့်မှု

ကဏ္ဍ	အမျိုးအစား	အကြိမ်ရေ	တိုင်းတာမည့်နေရာ	ကုန်ကျစရိတ် (ကျပ်)	တာဝန်ယူဆောင်ရွက်မည့်အဖွဲ့အစည်း
လုပ်ငန်းလည်ပတ်ချိန်ကာလ					
မီးဘေးအန္တရာယ်	Visual inspection, firefighting equipment	လစဉ်	စက်ရုံဧရိယာအတွင်း	တစ်နှစ်လျှင် ၁၂ သိန်းကျပ်	Environmental Management Team of Myanmar Cotton Spinning Garment Accessories Co., Ltd.
အလင်းရောင်	Illuminance	၆ လ တစ်ကြိမ်	ထုတ်လုပ်မှုဧရိယာအတွင်း	တစ်နှစ်လျှင် ၅ သိန်းကျပ်	
လုပ်ငန်းခွင်ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့်ကျန်းမာရေး	Fire extinguishers and water hydrant in position Inspect that all fire exist are open Servicing fire extinguisher and records accidents	အပတ်စဉ်	စက်ရုံဧရိယာအတွင်း	တစ်နှစ်လျှင် ၁၀ သိန်းကျပ်	

ပတ်ဝန်းကျင်ဆိုင်ရာစောင့်ကြည့်မှု

ကဏ္ဍ	အမျိုးအစား	အကြိမ်ရေ	တိုင်းတာမည့်နေရာ	ကုန်ကျစရိတ် (ကျပ်)	တာဝန်ယူဆောင်ရွက်မည့်အဖွဲ့အစည်း
လုပ်ငန်းပိတ်သိမ်းချိန်ကာလ					
လေအရည်အသွေး	SO2, NO2, CO2, PM2.5, PM10	ဖျက်သိမ်းချိန်ကာလအတွင်း ၁ ကြိမ်	ဖျက်သိမ်းမည့်ဧရိယာအတွင်း	၁၀ သိန်းကျပ်	Myanmar Cotton Spinning Garment Accessories Co., Ltd.
ဆူညံသံ	Noise level in decibel (dBA)	ဖျက်သိမ်းချိန်ကာလအတွင်း ၁ ကြိမ်	ဖျက်သိမ်းမည့်ဧရိယာအတွင်း	၅ သိန်းကျပ်	
စွန့်ပစ်အမှိုက်	အဆောက်အဦများဖျက်သိမ်းရာမှထွက်ရှိလာသော စွန့်ပစ်အမှိုက်များ	၁ ကြိမ်	ဖျက်သိမ်းမည့်ဧရိယာအတွင်း	၅ သောင်းကျပ်	

လူမှုအကျိုးတူပူးပေါင်းပါဝင်မှု

- Myanmar Cotton Spinning Garment Accessories Company Limited တွင် CSR အတွက် အမြတ်ငွေ၏ ၂% ကို ကျန်းမာရေး၊ ပညာရေးနှင့် နယ်မြေဖွံ့ဖြိုးတိုးတက်ရေးတို့ အတွက် အသုံးပြုသွားမည် ဖြစ်ပါသည်။

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

စက်ရုံ၏ဆောင်ရွက်ချက်များ

Myanmar Cotton Spinning Garment Accessories Company Limited ၏ မီးဘေးအန္တရာယ်ပြင်ဆင်ထားရှိမှုများ

ဝန်ထမ်းများအတွက်အိမ်သာထားရှိမှုများ နှင့် ရေမြောင်းထားရှိမှုအခြေနေများ

Myanmar Cotton Spinning Garment Accessories Company Limited ၏ လေဝင်လေထွက်ကောင်းစေရန် စီစဉ်ထားရှိမှုများ

Thank You for Your Time and Consideration!